# FACULTY of ARTS \& SCIENCE <br> U N I V ERSIT Y of T O R O N T O 

## 2007-2008 Calendar

## Message from the Dean

Welcome to the 2007-2008 academic year.
This Calendar is your guide to the wide range of academic choices available to you as a student in the Faculty of Arts \& Science. With more than 2,000 courses in some 300 programs, the number and variety of options is unparalleled in Canada.

While such choice is exciting, it can also be a little intimidating trying to decide which courses to take. There are many people who work in Arts \& Science whose job it is to answer your questions and assist you in getting the most out of your university experience. Your college registrar's office is your first stop for assistance, including advice about course selection, degree requirements and so on. I encourage you to take advantage of these services, whether you are at the beginning, middle or end of your university career.

The Faculty of Arts \& Science is firmly committed to a top quality experience for our students. We value your feedback on all aspects of your student life. Let us know how you feel your courses and professors measure up by completing the Arts \& Science Students' Union course evaluations. Pass along suggestions to your college registrar's office about ways in which services could be improved or drop a note in the Faculty of Arts \& Science Registrar's office suggestion box. Take part in campus surveys measuring student satisfaction. Give us your feedback and ideas about this Calendar and our services in general by emailing ask@artsci. utoronto.ca. Or you might even decide to join fellow students on my Faculty Council—Arts \& Science's main decision-making body. Through your engagement, we can ensure Arts \& Science students get the educational experience they deserve.

With best wishes for a great academic year,


Pekka K. Sinervo, FRSC

Dean \& Vice-Provost, First Entry Programs, University of Toronto

## Important Notices

While Departmental counsellors and the Registrars of the Colleges are always available to give advice and guidance, it must be clearly understood that THE ULTIMATE RESPONSIBILITY RESTS WITH THE STUDENT for completeness and correctness of course selection, for compliance with prerequisite, co-requisite requirements, etc., for completion of Program details, for proper observance of the Distribution Requirement and for observance of regulations, deadlines, etc. Students are responsible for seeking guidance from a responsible officer if they are in any doubt; misunderstanding, or advice received from another student will not be accepted as cause for dispensation from any regulation, deadline, program or degree requirement.

## Degrees Offered on the St. George Campus

Effective for students registering in a degree program in the Faculty for the first time in the 2001 summer session or later, the St. George Campus of the Faculty of Arts and Science has discontinued the 15 -course (three-year) B.A. and B.Sc. degrees; ONLY 20-course (four-year) Honours B.A., B.Sc. and B.Com degrees will be available. Students registered in a degree program in the Faculty before the 2001 summer session may still choose a 15 -course (three-year) degree.

## Changes in Programs of Study and/or Courses

The programs of study that our calendar lists and describes are available for the year(s) to which the calendar applies. They may not necessarily be available in later years. If the University or the Faculty must change the content of programs of study or withdraw them, all reasonable possible advance notice and alternative instruction will be given. The University will not, however, be liable for any loss, damages, or other expenses that such changes might cause.

For each program of study offered by the University through the Faculty, the courses necessary to complete the minimum requirements of the program will be made available annually. We must, however, reserve the right otherwise to change the content of courses, instructors and instructional assignments, enrolment limitations, pre-requisites and co-requisites, grading policies, requirements for promotion and timetables without prior notice.

## Regulations and Policies

The University has several policies that are approved by the Governing Council and which apply to all students. Each student must become familiar with the policies. The University will assume that he or she has done so. The rules and regulations of the Faculty are displayed here.Applicable University policies are either fully displayed here or listed here. In applying to the Faculty, the student assumes certain responsibilities to the University and the Faculty and, if admitted and registered, shall be subject to all rules, regulations and policies cited in the calendar, as amended from time to time.

## Enrolment Limitations

The University makes every reasonable effort to plan and control enrolment to ensure that all of our students are qualified to complete the programs to which they are admitted, and to strike a practicable balance between enrolment and available instructional resources. Sometimes such a balance cannot be struck and the number of qualified students exceeds the instructional resources that we can reasonably make available while at the same time maintaining the quality of instruction. In such cases, we must reserve the right to limit enrolment in the programs, courses, or sections listed in the calendar, and to withdraw courses or sections for which enrolment or resources are insufficient notice and alternative instruction will be given. The University will not be liable for any loss, damages, or other expenses that such limitations or withdrawals might cause.

## Copyright in Instructional Settings

If a student wishes to tape-record, photograph, video-record or otherwise reproduce lecture presentations, course notes or other similar materials provided by instructors, he or she must obtain the instructor's written consent beforehand. Otherwise all such reproduction is an infringement of copyright and is absolutely prohibited. In the case of private use by students with disabilities, the instructor's consent will not be unreasonably withheld.

## Person I.D. (Student Number)

Each student at the University is assigned a unique identification number. The number is confidential. The University, through the Policy on Access to Student Academic Records, strictly controls access to Person I.D. numbers. The University assumes and expects that students will protect the confidentiality of their Person I.D.'s.

## Fees and Other Charges

The University reserves the right to alter the fees and other charges described in the calendar.

## Notice of Collection concerning Freedom of Information and Protection of Privacy

The University of Toronto respects students' privacy. Personal information that you provide to the University is collected pursuant to section 2(I4) of the University of Toronto Act, I97I. It is collected for the purpose of administering admissions, registration, academic programs, university-related student activities, activities of student societies, financial assistance and awards, graduation and university advancement, and for the purpose of statistical reporting to government agencies. At all times it will be protected in accordance with the Freedom of Information and Protection of Privacy Act. If you have questions, please refer to www.utoronto. ca/privacy or contact the University Freedom of Information and Protection of Privacy Coordinator at 416-946-7303, McMurrich Building, Room 20I, 12 Queen's Park Crescent West, Toronto, ON, M5S IA8.

## Registration

Details of the procedures by which students of the Faculty of Arts and Science register and enrol in courses for which they are eligible, and pay or make arrangements to pay fees, are found in the Registration Handbook and Timetable, which students receive from their college. (Any student allowed to register one day after the end of the first week of classes is charged a late fee.

## Passed Courses May Not Be Repeated

Students may not repeat any course in which they have already obtained a mark of $50 \%$ or higher. The only exceptions occur when students require a course with a specific grade for entry to a limited-enrolment Program. Students may repeat such a course only once as an "extra" course, which will have no effect on status or Grade-Point Average. There are no supplemental examinations or provisions to "upgrade" a mark. All courses taken, except those officially cancelled, remain on the record.

## Degree Courses and "Extra" Courses: Chronological Principle

Courses are credited towards a degree chronologically. For example, if a student has already passed six 100 -series courses and then enrols in further 100 -series courses, the more recent courses are counted as "Extra" courses. An exception occurs when a student who has completed 5.5 100-series courses enrols in a full course at the 100 -level in a subsequent session; the most recently taken half-course becomes "extra."

## Contents

## Where to Look to Find What You

 Need...A quick guide to information on the main topics of interest to Arts \& Science students.
(Calendar $=$ this publication ; RHT $=$ Registration Handbook \& Timetable ;ASW = Arts \& Science Faculty Registrar's website: www.artsci.utoronto.ca/current/undergraduate)

## COURSES:

Descriptions listed alphabetically by sponsoring unit in the Calendar.

Scheduling information and enrolment instructions in the RHT.

## PROGRAMS

General definitions and rules, Calendar pp. 25-26. Alphabetical listing of all Subject POSts (programs of study), Calendar pp. 3839 \& RHT. Contacts \& enrolment instructions, RHT.

## DEGREE REOUIREMENTS

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Hon.BA/BSc, Calendar p. 25; B.Com p. }26
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## EEES

Amounts, payment deadlines, refund schedules: Student Accounts website: www.fees.utoronto.ca.

See also Calendar p. 474.

## GRADING \& MARKS

A\&S grading scale \& policies, pp. 478-479; UofT Grading Practices Policy, p. 485 ff .

## PETIONS

Official rules, Calendar p. 480. See also the informal Petitions Guide on the ASW. Advising: see your College Registrar's Office

## EXAMS

Final Examination timetables, ASW.
Rules, Calendar p. 477. Also see Appendix to the Petitions Guide, which gives all the rules for exams, ASW.

## ACADEMIC MISCONDUCT

Code of Academic Behaviour (i.e., plagiarism, cheating, etc), Calendar p. 488. Also Code of Student Conduct, Calendar p. 490.

## EINANCIALAID

Admissions \& Awards website: www.adm.utoronto.ca/fa. Advising from your college Registrar's Office and Admissions \& Awards.

## SCHOLARSHIPS

Admissions \& Awards website: www.adm.utoronto.calawd; Arts \& Science web site: http://www.artsci.utoronto.ca/current/ undergraduate/undergraduate-scholarships.

## TRANSCRIPTS

Ordered from the Transcript Office, Sidney Smith, room I006, or on ROSI at www.rosi.utoronto.ca. (Use a credit card to order.) Information on ASW.

## ADVISING

Your reliable first stop is your College Registrar's Office. They can help you sort things out and get the support you need. Departmental and program advisors advise on matters related to specific courses, programs, or instructional matters. You may also access specialized University Student Services directly. See: www.studentservices.utoronto.ca/services.asp or Intuit:Your guide to student life @ U ofT.

## COURSE EVALUATIONS

The ASSU Anti-Calendar appears on the ASSU website: www.assu.ca.

## OLD EXAMS

The Library website: http://eres.library.utoronto.ca.

## Contents

For updates to this Calendar, check www.artsci.utoronto.ca/current/undergraduate. Please note that not all courses listed in the Calendar are offered every year; for course schedules, check the Registration Handbook and Timetable.
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## 2007 Summer Session

## May 2007

$14 \quad$ Classes begin in $F$ and $Y$ section code courses
21 Last day to add courses with $F$ and $Y$ section codes; Victoria Day; University closed

## June 2007

8
Fees payment deadline for deferred examinations in June 2007; deferred examination cancelled and grade with " 0 " for examination reinstated to academic record for students who have not paid.
10 Last day to drop courses with F section codes from academic record and GPA. After this deadline a mark is recorded for each course, whether course work is completed or not (a " 0 " is assigned for incomplete work), and calculated into the GPA.
13-20 Arts and Science Spring Convocations
22 Classes end in $F$ section code courses; Fees payment deadline for deferred examinations in August 2007; deferred examination cancelled and grade with " 0 " for examination reinstated to academic record for students who have not paid.
25-29 Final examinations in $F$ section code courses, and deferred examinations in specified $S$ section code courses from April/May 2007
29 Last date to file a petition regarding term work in 2007 summer session $F$ section code courses

## July 2007

2
Canada Day holiday; University closed
3 Classes begin in S section code courses; First day to request graduation in November 2007
6 Last date to file a petition regarding a final examination in 2007 summer session $F$ section code courses
9 Last day to add courses with $S$ section codes
20 Examination timetable for $S$ and $Y$ section code courses posted
22 Last day to drop courses with $Y$ section codes from academic record and GPA. After this deadline a mark is recorded for each course, whether course work is completed or not (a " 0 " is assigned for incomplete work), and calculated into the GPA.
27 Notification of deferred examination dates during the August examination period mailed to students who have paid fee
30 Last day to drop courses with $S$ section codes from academic record and GPA. After this deadline a mark is recorded for each course, whether course work is completed or not (a " 0 " is assigned for incomplete work), and calculated into the GPA.

## August 2007

$6 \quad$ Civic holiday; University closed;
$10 \quad$ Classes end in $S$ and $Y$ section code courses
13-17 Final examinations in $S$ and $Y$ section code courses, deferred examinations from April/May 2007, and specified courses from June 2007
17 Last date to file a petition regarding term work in 2007 summer session Y/S section code courses

Last date to file a petition regarding a final examination in 2007 summer session $\mathrm{Y} / \mathrm{S}$ section code courses

## September 2007

9
Last day to request graduation for November 2007

## 2007 Fall Session

Meeting dates for Council of the Faculty of Arts and Science and its Standing Committees will be posted on the Arts \& Science Governance web site: www.artsci.utoronto.calmain/facultygovernance.

## August 2007

$31 \quad$ Bank tuition fee payment (or official deferral) must be done by this date for automatic registration

## September 2007

3 Labour Day; University closed
10 Fall term classes begin in $F$ and $Y$ section code courses
19 Proof of tuition fee payment must be shown to College Registrars' Offices for registration if payment made after August 31
23 Last day to add courses with $F$ and $Y$ section codes; Last day to enrol in Subject POSt for 2007-2008 Session

## October 2007

$5 \quad$ Fees payment deadline for deferred examinations in December 2007; deferred examination cancelled and grade with " 0 " for examination reinstated to academic record for students who have not paid.
9 First date to request graduation in June 2008 on the Student Web Service
8 Thanksgiving; University closed
I9 Examination timetable for $F$ section code courses posted
26 Notification of deferred examination dates during the December examination period mailed to students who have paid fee.

## November 2007

4 Last day to drop courses with F section codes from academic record and GPA. After this deadline a mark is recorded for each course, whether course work is completed or not (a " 0 " is assigned for incomplete work), and calculated into the GPA.
I5 Deadline to request corrections to 2006-2007 Fall/ Winter academic record
12-16 Arts and Science Fall Convocations (tentative)
December 2007
Last date to request graduation for June 2008
7 Classes end

10-21 Final examinations in $F$ section code courses, and deferred exams from August 2007; Term tests in $Y$ section code courses
21 Last date to file a petition regarding term work in 2007 fall session $F$ section courses

## Sessional Dates

22 Winter holidays for students begin; University is closed December 22 to January 6, 2008

## 2008 Winter Session

## January 2008

$7 \quad$ Winter Session classes begin
II Last date to file a petition regarding a final examination in 2007 fall session $F$ section courses
20 Deadline to enrol in S section code courses
25 Fees payment deadline for deferred examinations to be written in February; deferred examination cancelled and grade with " 0 " for examination reinstated to academic record for students who have not paid fee

## February 2008

I Notification of deferred examination dates during Reading Week mailed to students who have paid fee
15 Final Examination timetable for $\mathrm{S} / \mathrm{Y}$ courses posted
17 Last day to drop courses with Y section codes from academic record and GPA. After this deadline a mark is recorded for each course, whether course work is completed or not (a " 0 " is assigned for incomplete work), and calculated into the GPA.
18-22 Reading Week; Deferred Examinations from December 2007
22 Fees payment deadline for deferred examinations to be written in April/May; deferred examination cancelled and grade with " 0 " for examination reinstated to academic record for students who have not paid
28 Deadline to request corrections to 2007 Summer academic record

## March 2008

$7 \quad$ Notification of deferred examination dates during the April/May examination period mailed to students who have paid fee
9 Last day to drop courses with $S$ section codes from academic record and GPA. After this deadline a mark is recorded for each course, whether course work is completed or not (a " 0 " is assigned for incomplete work), and calculated into the GPA.
21 Good Friday: University closed

## April 2008

II Classes end
14-18 Study period; no tests or examinations in this period
21-May 9 Final examinations in S and Y section code courses and deferred examinations from December 2007

## May 2008

9 Last date to file a petition regarding term work for 2007-2008 fall-winter sessions Y/S section code courses
16 Last date to file a petition regarding a final examination for 2007-2008 fall-winter sessions Y/S section code courses
19 Victoria Day; University closed

## lune 2008

TBA Arts and Science Spring Convocation. Please check "Ceremony Dates" at www.utoronto.ca/ convocation.

## 2008 Summer and 2008-2009 FallWinter Tentative Dates

The tentative dates for the 2008 Summer and 2008-2009 Fall-Winter sessions were not available at press time. When they have been determined, they will be posted on the Faculty Registrar's web site at www.artsci.utoronto.ca/current./ undergraduate.

## Admission

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FACULTY of ARTS \& SCIENCE
U N I V ERS I T Y of T O R O N T O

## Admission to the Faculty

Detailed admission requirements are contained in the University of Toronto Viewbook, which is available in secondary school guidance offices throughout Ontario or on the Admissions and Awards web site at www.adm.utoronto.ca or through the Faculty of Arts and Science Student Recruitment Office. They are also available on the University's web site for prospective students at www.utoronto.ca/Prospective_Students. htm. Candidates from countries other than Canada should also consult the International Undergraduate Admissions Bulletin available on the Admissions and Awards web site.

## Admissions and Awards

University of Toronto, 315 Bloor St.W.
Toronto, Ontario, Canada M5S IA3
416-978-2190
www.adm.utoronto.ca

## Arts \& Science Student Recruitment Office

2032-I00 St. George St.
Toronto, Ontario, Canada M5S 3G3
4I6-978-4272
recruit@artsci.utoronto.ca
www.artsci.utoronto.ca

## Minimum Admission Requirements for Applicants from Ontario Secondary Schools

Applicants must be eligible to receive the Ontario Secondary School Diploma, present six Grade 12 U or M courses including ENG4U/EAE4U, and meet any prerequisites for their intended program of study.

## Minimum Admission Requirements for Applicants from Outside Ontario Secondary Schools

The Faculty of Arts and Science is home to a rich and varied student body. Although most of our students are from Southern Ontario, we have students from every province of Canada and from over 90 foreign countries. We encourage application by qualified students from outside Ontario. Applicants must present a satisfactory academic record from recognized academic institutions and meet the requirements listed in the International Undergraduate Admissions Bulletin, available for download from the Admissions and Awards web site at www. adm.utoronto.ca/adm. The specific average or standing required for admission varies from year to year.

## Canadian Students

Applicants from the Province of Quebec must present twelve academic C.E.G.E.P. courses including two terms of English/ anglais. Applicants from all other provinces and territories in Canada must present grade 12 matriculation. For detailed information, check the Admissions and Awards web site at www.adm.utoronto.ca/adm.

## American Students

Applicants from the United States must present Grade 12 matriculation and present good scores in SAT Reasoning or ACT examinations. Students must present the Writing Test. Applicants must also present at least three SAT Subject Test
scores or AP scores in subjects appropriate to their proposed area of study. Those seeking admission to science or business/ commerce programs are strongly advised to complete AP Calculus AB or BC or IB Mathematics. For detailed information, check the Admissions and Awards web site at www.adm. utoronto.ca/adm.

## Other Applicants

Information on admission requirements for international applicants is available on the Admissions and Awards web site at www.adm.utoronto.ca/adm.

## All Applicants from Outside the Ontario School

 SystemIn addition to meeting the Faculty of Arts and Science admission requirements, students intending to enrol in Commerce, Economics or Science programs must have completed, or must take, a full credit secondary school course or equivalent in Calculus which covers the geometric notion of a limit, the differentiation and integration of elementary functions and provides them with a geometric grasp of differentiation and integration in place of Grade 12 Calculus.

Please note that Commerce and Computer Science require a second math. As of 2008, Life Science and Physical and Mathematical Science will also require a second math.

For further information on acceptable mathematics courses or equivalents, please contact the Department offering the program in which you intend to enrol.
The Faculty of Arts and Science offers a special first-year calculus course entitled MAT I36Y - Calculus and its Foundations, limited to students from outside of Ontario interested in the biological, physical, commerce or computer sciences and commerce and whose high school mathematics preparation is strong but does not include calculus. For more information, consult the Mathematics listing starting on page 316 of this Calendar for a full course description as well as the Registration Handbook and Timetable.

## PUMP (Preparing for University Math Program)

PUMP is a non-credit, intensive course specially designed to prepare students for entry-level mathematics courses, like calculus and linear algebra. It is designed primarily for students from outside Ontario who require additional pre-university mathematics background. The course costs $\$ 600.00$ (subject to change). For more information, see the web site at www.math. utoronto.ca/pump.

## English Facility Requirement

Applicants whose first language (language learned at home as a child) is not English may have to present proof of English facility. For details, see the Admissions and Awards web site at www. adm.utoronto.ca/adm.

## Admission

## Other Admission Categories

## Students Transferring from University of Toronto Mississauga and University of Toronto Scarborough

Students transferring from the University of Toronto Mississauga and the University of Toronto Scarborough apply using an internal application available on the Admissions and Awards web site at www.adm.utoronto.ca/adm (click "Applications/ Deadlines"). Students transferring from University of Toronto Mississauga and University of Toronto Scarborough must follow the degree requirements and observe the course exclusions in the St. George Campus Calendar; for example: the St. George campus Distribution Requirement must be completed.

## Admission with Transfer Credit

Candidates with acceptable standing at other universities, or at other divisions of this University (including the University of Toronto Mississauga and the University of Toronto Scarborough), may be considered for admission with transfer credit provided that the content of the studies for which credit is sought is considered appropriate for inclusion in a degree program offered by the Faculty. Transfer credits are assessed after admission once the student has completed the online application and paid the assessment fee. Students who have completed a bachelor's degree,: see section entitled "Admission of External Students to a Second Degree Program" in the next column. The Faculty grants up to a maximum of five credits to candidates who have completed a three-year diploma at Ontario Colleges of Applied Arts and Technology/Institutes of Technology and Advanced Learning, and a maximum of two generic credits to candidates who have completed a two-year diploma at Ontario Colleges of Applied Arts and Technology/ Institutes of Technology and Advanced Learning. Otherwise a maximum of ten transfer credits may be granted. Students who have completed post-secondary studies are required to apply for on-admission transfer credit.

Regardless of the number of transfer credits granted, at least five of the six 300+series courses required for an Honours degree must be completed with a passing mark in this Faculty. Newly admitted students have one year from the date of their transfer credit assessment, or from the date of their first registration in the Faculty, whichever is later, to request a reassessment or adjustment. The same time limit applies to all departmental interviews.

Candidates who have completed Arts and Science courses while enrolled in other Divisions of this university or while enrolled as non-degree students in this Faculty prior to degree studies will have these courses and grades included in the academic record.

## Admission Restricted to "Part-Time"

Students restricted to a reduced course load on admission may take no more than 2.5 courses over the Fall-Winter Sessions. They may take a maximum of 1.0 course in the Summer Session. If these students wish to transfer to full-time studies, they may apply through their College Registrar after the session in which they pass at least 4 courses in the Faculty with a minimum cumulative Grade Point Average of 2.50. (Transfer credits are not counted.) See also Number of Courses Taken ("Course Load").

## Admission "On Probation"

Candidates who fail to satisfy the Faculty's admission requirements, but successfully appeal for special consideration of the circumstances which have affected their studies at other universities, or other Faculties or Schools of this University including the University of Toronto Scarborough and the University of Toronto Mississauga, may be admitted On Probation. The academic requirements that such students must meet are the same as those required of students who encounter academic difficulties while registered in the Faculty. The academic status will remain, "On Probation", until the session in which the student attempts his/her fourth course, at which time a further status will be assigned. Students who are admitted on probation and who have retained credits from previous courses in this Faculty will have the total number of retained credits and grades included in the four course attempts. Refer to Section Six, Rules and Regulations:Academic Status, in this Calendar. Students may be at risk of academic suspension from the Faculty and are strongly urged to consult their college registrar for appropriate counselling before registering and if necessary, during the course of their studies.

## Admission as a Non-Degree Student

Non-degree students are registered in the Faculty but are not proceeding towards a degree offered by the Faculty. Most Non-degree students have completed a degree and are taking further courses for their own purposes, including admission to graduate studies. Students admitted as degree students cannot become Non-degree students unless they have completed an Honours or Four Year degree, or are returning to the Faculty as Non-degree students on a Letter of Permission from another institution. To apply for admission as a Non-degree student, download the application from the Admissions and Awards web site at www.adm.utoronto.ca/adm (click "Applications/ Deadlines").

## Admission of External Students to a Second Degree Program

Applicants with a Bachelor of Arts or Bachelor of Science or equivalent from another university who wish to complete a second undergraduate degree in the Faculty of Arts and Science may apply for admission to a second degree program. Before applying, external candidates are urged to determine whether a second degree is actually required for their purposes; for example, a "make-up" year as a non-degree student may satisfy admission requirements for a graduate program. The Faculty grants a maximum of five transfer credits-four at the 100 level and one at the 200 level. It is not possible to complete a second undergraduate degree in the same field as the first degree. Students who have completed post-secondary studies are required to apply for on-admission transfer credit. To apply, check the Admissions and Awards web site at www.adm. utoronto.ca/adm (click "Applications/Deadlines").

## Admission as Non-Degree Visiting Students

Students with valid Letters of Permission from other accredited North American universities who have not been officially admitted to the Faculty of Arts and Science may register as visiting students at Woodsworth College, taking courses for transfer credit at their own home university. Non-degree visiting student registration does not imply acceptance as either a student proceeding towards a degree or a Non-degree
student. Students will receive grade point averages and status as outlined in Section 6. Students must observe Faculty policies, including the prohibition on repeating a "passed" course. For application information and deadlines, check www.wdw. utoronto.ca/visit or contact Woodsworth College, University of Toronto, Toronto M5S IA9 (4I6-978-5880).

Students who have transferred to other universities, but wish to return to the Faculty on a Letter of Permission should reregister at their original college as non-degree students.

## Admission as International Non-Degree Visiting Summer Students

Students with valid Letters of Permission from recognized International universities who have not been officially admitted to the Faculty of Arts and Science may register as visiting students through the International Summer Program (ISP) at Woodsworth College. Students would take summer courses for transfer credit at their own home university. Non-degree international visiting student registration does not imply acceptance as either a student proceeding towards a degree or a Non-degree student. Students will receive grade point averages and status (see page 479). Students must observe Faculty policies, including the prohibition on repeating a "passed" course. For application information and deadlines, check www.isprogram.utoronto.ca or contact Woodsworth College, University of Toronto, Toronto M5S IA9, (4I6-9788713).

## Admission as Non-Matriculants; Academic Bridging Program

Candidates at least twenty-one years of age who are Canadian citizens or permanent residents of Canada and who do not hold the published admission requirements, may apply for admission as non-matriculants. They must present proof of age, and must complete, with high standing, at least one of the Academic Bridging courses offered by Woodsworth College. All candidates should consult Admissions and Awards concerning their eligibility to qualify as a non-matriculant through the Academic Bridging Program. Information on the Academic Bridging Program is provided on page 5I of this Calendar. Further information is also available at www.wdw.utoronto.ca or by contacting Woodsworth College, University of Toronto, Toronto M5S IA9 (4I6-978-7487; email academic.bridging@ utoronto.ca).

## Admission of Senior Citizens

Canadian citizens or permanent residents of Canada who are at least sixty-five years of age by the first day of the term, may register in the Faculty at Woodsworth Colleges as part-time Special Students. They do not have to meet the academic requirements for admission. Applicants should contact Woodsworth College at 416-978-4444 for admission and tuition fee information.

## Re-Registration in the Faculty

Students previously registered as degree or non-degree students in this Faculty who wish to return after an absence must submit a "Request for Re-registration Form" (charge $\$ 24$ ) through their college registrar's office. Re-registration is necessary for students who have not registered in this Faculty within the previous 12 months.

Students with outstanding accounts may not re-register at the University until these accounts are paid. See page 474 for payment deadlines.
"Request for Re-Registration" forms should be submitted at least one week prior to the fall/winter enrolment window for your year of study (see the Registration Handbook \&Timetable for details). Prior to course selection you will need to make sure you are enrolled in an appropriate combination of Subject POSts (programs of study) for your degree. It is advisable for you to make arrangements to see a counsellor at your college to go over changes in policies and procedures as well as to clarify the degree requirements you are following.
"Request for Re-Registration" forms can be accepted until August I8, 2006 for Fall/Winter enrolment although space in courses will be limited at this point.

Students who previously studied as non-degree visiting students do not request re-registration. They must submit a new visiting student application and valid letter of permission through Woodsworth College (see "Admission as Non-Degree Visiting Students" on the previous page for details).

## Admission to Other University of Toronto Faculties/Programs

Many professional studies require completion of one or more years of study in Arts and Science before you apply to them. For detailed admission and contact information on professional studies, please refer to www.artsci.utoronto.ca/prospective/ programsofstudy/professprogs.

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U N I V ERS I T Y of T O R O N T O

## Student Services \& Resources

## Academic \& Personal Counselling

## The Colleges

Every Arts and Science student is a member of a college. Think of your college as a familiar neighbourhood within the university. All the colleges provide advising and support services for students. Academic advising, as well as counselling on financial and personal matters, is available through your college registrar's office. Also, each college provides its students with academic support services such as writing skill centres, math aid centres, libraries and computer facilities. And remember, no matter which college you belong to, you have access to all the courses and programs offered in Arts and Science.

The Registrar's Office of each student's college is the focal point for information and advice of all kinds, and should be consulted as soon as any problems of an academic or personal nature are encountered.

Most of the Colleges offer academic support services, such as Writing Laboratories to provide students with assistance in writing assignments, essays and reports; Mathematics Aid Centres; tutorial services; etc. For further information, see the individual College listings (see page 494) or consult the College Registrar.

Students with problems relating to the teaching of courses (lectures, tutorials, evaluation, work-load, etc.) that they cannot resolve with the instructors concerned, can obtain advice and assistance either from the Undergraduate Secretary of the particular Department, or from their College Registrar.

The Departments and College Program offices should be consulted for advice on courses and programs they sponsor. They also have brochures giving more details of courses and programs than is possible in the Calendar. First-year students are particularly urged to consult program sponsors during the FallWinter Session for details on enrolling in programs. (All students must enrol in at least one Specialist or Major or two Minor program(s) upon passing four courses.)

Students registered in Divisions other than Arts and Science who have problems with Arts and Science courses should go for advice either to the departmental Undergraduate Secretary or to the registrar of their own Faculty or School.

## Innis College-Office of the Registrar

2 Sussex Avenue, Toronto, ON M5S IJ5
416-978-25I3 phone/4I6-978-5503 fax
registrar.innis@utoronto.ca
www.utoronto.ca/innis
Hours: Monday 9 a.m.-I p.m., 2-6 p.m.;Tuesday 10 a.m.-I p.m., 24:30 p.m.,Wednesday/Thursday/Friday 9 a.m.-I p.m., 2-4:30 p.m.

## New College-Office of the Registrar

300 Huron Street, Room 107,Toronto, ON M5S 3J6
416-978-2460 phone/416-978-0554 fax
newcollege.registrar@utoronto.ca
www.newcollege.utoronto.ca
Hours: Monday to Friday 9 a.m.-I2:30 p.m., I:30-4:30 p.m. (until 4 p.m. in July-August); Wednesday also 5-6 p.m.

## St. Michael's College-Office of the Registrar \& Student Services

Room 207, I2I St. Joseph Street, Toronto, ON M5S 3C2
416-926-7II7 phone/416-926-7266 fax
stmichaels.registrar@utoronto.ca
www.utoronto.ca/stmikes
Hours: Monday, Tuesday, Wednesday, Thursday 9:30 a.m. - 12:30 p.m.; I:30-4:30 p.m.; Friday 9:30 a.m. - I2:30 p.m.; I:30-4:00 p.m.

Trinity College-Office of the Registrar
6 Hoskin Avenue, Toronto, ON M5S IH8
416-978-2687 phone/416-978-283I fax
registrar@trinity.utoronto.ca
www.trinity.utoronto.ca
Hours: Monday, Wednesday, Thursday, Friday: 9 a.m.-I p.m., 2-5 p.m. , Tuesday: 10 a.m.-I p.m., 2-5 p.m.

Summer hours: Monday, Wednesday, Thursday, Friday: 9 a.m.-I p.m., 2-4 p.m. ,Tuesday: 10 a.m.-I p.m., 2-4 p.m.

University College-Office of the Registrar
15 King's College Circle, Toronto, ON M5S 3H7
416-978-3170 phone/416-978-6019 fax
uc.regoffice@utoronto.ca
www.utoronto.ca/uc
Hours: Monday, Wednesday, Thursday, Friday: 10 a.m. -4 p.m.; Tuesday: 10 a.m.-6 p.m.

## Victoria College-Office of the Registrar

Northrop Frye Hall, Room 106, 73 Queen's Park Crescent East, Toronto, ON M5S IK7
416-585-4508 phone/416-585-4459 fax
vic.registrar@utoronto.ca
www.vicu.utoronto.ca
Hours: Monday,Thursday,: 9:30 a.m - 4:30 p.m.;Tuesday: 9:30 a.m. -6 p.m.;Wednesday: 10:00 a.m. - 4:30 p.m.; Fridays: 9:30 a.m. - 4:00 pm

## Woodsworth College-Office of the Registrar

II9 St. George Street, Toronto, ON M5S IA9
4I6-978-4444 phone/4 I6-978-6 I II fax
wdwregistrar@utoronto.ca
www.wdw.utoronto.ca
Hours: Monday, Wednesday, Thursday: 10 a.m. -5 p.m. (4:30 p.m. in July \& August); Tuesday: 10 a.m.-6 p.m. (5:30 p.m. in July \& August); Friday: 10 a.m.-4 p.m.

## Office of the Faculty Registrar

The Office of the Faculty Registrar works closely with departments and colleges concerning virtually all matters relating to Arts and Science students: it coordinates counselling, registration and enrolment, student records, transfer credit, petitions, final examinations and graduation. The Office of the Faculty Registrar, located in Sidney Smith Hall, IOO St. George Street, Room 1006, can provide general information about registration and enrolment, course listings, building and classroom locations, etc. It is also the location of the University of Toronto Transcript Centre, which produces transcripts for all divisions of the University.

## Student Services \& Resources

You can also get useful information about Arts and Science from the Faculty Registrar's web site (www.artsci.utoronto.ca/ current/undergraduate). In addition, if you have questions about any aspect of your undergraduate experience, you can e-mail the Faculty Registrar at ask@artsci.utoronto.ca.

## Office of the Faculty Registrar/University of Toronto Transcript Centre

100 St. George Street, Toronto, ON M5S 3G3
4I6-978-3384 phone, 416-978-2487 fax
ask@artsci.utoronto.ca
www.artsci.utoronto.ca/current/undergraduate
Hours: Monday-Friday: 8:45 a.m.-5 p.m. (until 4:30 p.m. in JulyAugust)

## Arts \& Science Student Computer Program

Shopping around for a new computer? Want to take advantage of $U$ of T's growing wireless environment?

Check out the Arts \& Science Student Computer Program.
Find out more:
Visit: www.studentcomputers.artsci.utoronto.ca
Email: student.computers@artsci.utoronto.ca
Call: 416-978-4357 (HELP)

## Other Student Services Offices

## Accessibility Services:

Programs and Services for Students with a Disability

Accessibility Services:
Programs and Services for Students with a Disability
Accessibility Services
St. George Campus
Robarts Library, Ist Floor
130 St. George Street
Toronto, OntarioM5S 3HI
Voice: (416) 978-8060
TDD: (416) 978-I902
Fax: (416) 978-8246
e-mail: disability.services@utoronto.ca
Web site: http://disability.sa.utoronto.ca

## University Commitment

The University, in its statement of institutional purpose, states: "The University of Toronto is dedicated to fostering an academic community in which the learning and scholarship of every member may flourish with vigilant protection for individual human rights, and a resolute commitment to the principles of equal opportunity." The University will make every attempt to provide reasonable and appropriate accommodations to persons who have disabilities. Faculty and staff carry a responsibility for creating and maintaining an inclusive environment in their teaching and work settings and responding appropriately to requests for accommodation of a disability. Accessibility Services provides support and advice for faculty and staff regarding appropriate accommodations, information about disabilities, and community resources.

## Responsibilities of Students who have Disabilities

Students who request accommodations for their academic programs and related activities at the University are obligated to disclose their disabilities to the respective campus Service for Students with Disabilities, and request accommodations in a timely manner to facilitate the implementation of support and services. It is vitally important that students discuss their needs as early as possible with the Service in order to put accommodations in place. Students must present relevant and up-to-date documentation, as outlined on the website, from an appropriate health care professional.

## Support Services for Students

There are offices on all three $U$ of $T$ campuses that work to facilitate the inclusion of students with disabilities into all aspects of university life. The focus is on skills development, especially in areas of self-advocacy and academic skills. Services are provided to students who have a physical, sensory, or learning disability; mental-health disability; acquired brain injury; or chronic-health condition, as well as students who have temporary disabilities such as a broken dominant arm.

The Service provides a wide range of support, including:

- Learning disability assessments
- Adaptive technology assessments
- Adaptive technology and assistive devices
- Alternative test and examination arrangements
- Volunteer note-taking services
- Sign-language interpreters
- Information on disability-related issues
- Liaison with academic and administrative offices within the University and with off-campus agencies
- On-campus transportation (St. George campus only)

To access the Service, students meet with an advisor to discuss individual needs, accommodations, and strategies for success. Where appropriate, eligible students are referred to one of the professionals on staff such as the Adaptive Technology Equipment Consultant, Learning Disability Specialist, or Occupational Therapist, for assessments to identify strategies and determine accommodations. Any information about a student's disability is confidential and is not shared outside the Service unless the student gives permission. Students are encouraged to meet and discuss their needs with their instructors.

There is a Bursary for Students with a Disability (BSWD) for students who have applied and established eligibility for OSAP. The BSWD helps students with disability-related educational costs while attending post-secondary institutions. To access the bursary, students meet with a Service advisor on their campus. University-funded alternate bursaries are also available for eligible support and services.

If you have any comments or suggestions, please feel free to contact Janice Martin, Manager at 416-978-8062 or by e-mail at janice.martin@utoronto.ca

# Student Services \& Resources 

## Career Centre Services

## Career Centre

Koffler Student Services Centre, 214 College Street
(416) 978-8000
www.careers.utoronto.ca
The Career Centre offers a wide variety of programs and services to meet the career planning and employment needs of students and recent graduates. To access these programs and services, students are encouraged to register with the Career Centre web site at www.careers.utoronto.ca. Career Centre Online provides information on all upcoming events, allows student sign up for in-house workshops and seminars, practice interviews, resume clinics, career talk appointments and special events.

Summer/Part-time/Temporary Employment, and Volunteer Opportunities:Thousands of employment and volunteer opportunities are advertised on our web site that can help students gain valuable skills and experience.

Internships: Students looking for a career-related experience that offers an opportunity to work, receive training and mentoring, and opportunities to network are encouraged to view the internship database. Internship opportunities are listed in research, international development, social and community work, history, public service to name a few.

Graduating Students Employment Service: A number of Fortune 500 companies, government agencies and organizations who anticipate their hiring needs six-to- eight months in advance, come on campus to recruit the graduating class.
Recent Graduates Employment Service:This service assists recent University of Toronto alumni (up to two years) seeking immediate full-time employment by helping them develop an effective self-marketing plan. Employment opportunities listed with this service represent a cross-section of what is available in the current employment market.

Career and Employment Resources: The Career Resource Library has a unique and specialized collection of occupational, educational and employment related resources.

Career Counselling/Career Talks: Counsellors provide career development advice and coaching to students by helping them identify skills, clarify options, and teaching them how to research occupations.

Career Development and Employment Search Workshops: A variety of workshops are offered to assist students with career planning, conducting a strategic employment search, writing effective resumes and preparing for employment interviews.

Extern Career Exploration Program: A job shadowing opportunity allowing students to observe a professional in the workplace. Scheduled during Reading Week and in May.

Resume Clinic: Students preparing resumes and covering letters can have them reviewed before sending them out to potential employers.

Practice Interviews: Students interested in fine-tuning their interview skills can schedule a 30-minute one-on-one session with a counsellor and receive valuable feedback and tips on how to improve their performance.

Employer panels, Industry talks, Great Careers Series, and Career fairs:The Career Centre invites employers and recent alumni to come on campus and participate in events that will offer students and recent graduates insights, advice and networking opportunities. They are scheduled throughout the academic year.

Student Outreach Service: Special presentations can be arranged for specific departments and delivered on campus rather than at the Career Centre. A minimum of group size of 30 is required.

## Counselling \& Learning Skills Service

If you are dealing with personal matters such as, difficulties adjusting to university life, anxiety, depression, shyness, relationship problems, sex and gender concerns, disturbances resulting from abuse and assault, prolonged stress, and other personal difficulties and would like to speak, in confidence, with a professional counsellor then please come for a initial consultation at CALSS. No appointment is necessary if you come during the daily hours posted on our website or call our reception for information.

If your concerns involve academic difficulties then the learning skills program which includes lectures, workshops and individual consultation on time management, exams, textbook reading, note taking, concentration, memory and other aspects of study. Individual appointments for assistance with study problems can be arranged with our learning skills counsellors by calling our reception. Students may also use the Learning Skills Success Centre without an appointment (check our website for hour of operation). We also offer workshops for students whose performance on exams and in other areas is severely affected by anxiety. Pre-register for these at CALSS or telephone.

CALSS web site: http://www.calss. utoronto.ca
CALSS Reception: 416-978-7970

## Family Care Office

The Family Care Office at the University of Toronto provides free confidential information, guidance, referrals and advocacy for students, staff, faculty and their families. You can take advantage of free workshops, support groups and seminars. Our Resource Centre contains practical information on a broad range of family care issues, from pregnancy and infant care to lesbian and gay parenting, from special needs children to caring for elderly family members. The Family Care Office promotes an inclusive definition of family that embraces the diverse family structures that make up the University community.

The Family Care Office: Koffler Student Services Centre, 214
College Street.
Phone: 416-978-095I
E-mail: family.care@utoronto.ca
Web site: www.familycare.utoronto.ca

## First Nations House:

Office of Aboriginal Student Services and Programs
"Leadership, Spiritual Growth \& Academic Excellence"
First Nations House, is a dynamic place where Aboriginal students studying at $U$ of $T$ can seek culturally appropriate

## Student Services \& Resources

services. Founded in 1992, First Nations House has welcomed the university community to participate and learn about Aboriginal people and their culture.

The services provided include academic and financial counselling, traditional teachings, and tutoring. Students can also use the computer lab, the library and the kitchen. The Native Students Association is also located at First Nations House.

For more information, please contact:
First Nations House
Borden Building North
563 Spadina Ave., 3rd floor
Toronto, ON M5S 2J7
416-978-8227 (Main)
Web: www.fnh.utoronto.ca
Email: fnh.info@utoronto.ca

## First-Year Initiative Program (FYI)

(416) 946-0147

214 College Street, Koffler Student Services Building
http://www.studentservices.utoronto.ca/fyi
The First-Year Initiative Program is your front door to Student Services. FYI helps first-year students make a smooth transition into university through teaching effective study and learning skills, and providing workshops designed for first-year students on a variety of career, personal and psychological, housing, parenting, health, international and Aboriginal issues. A personalized web site is available to first-year students and provides a number of resources as well as discussion forums.

## Health Service

Health Service offers $U$ of $T$ students the same services as a family doctor's office, and more. We provide confidential, student-centred health care including comprehensive medical care, travel education, immunization, counselling and referrals. The multi-disciplinary team includes family physicians, registered nurses, a health promotion nurse, peer health educators, a community health coordinator and a lab technician.

Comprehensive sexual health care and counselling is available, and prescriptions and contraceptive products can be purchased at a reduced cost. Emergency contraception, pregnancy testing, pregnancy support as well as sexually transmitted infection testing, treatment and education is also available. When you visit Health Service, bring your OHIP or UHIP card, or health card from another province, and your student card.

Health Service is located in the Koffler Student Services Centre at 214 College Street, Second Floor. To book an appointment, call 416-978-8030. If you feel you need to be seen more urgently, there is also a drop-in option.

For hours and other information, please visit the Health Service web site at www.utoronto.ca/health.

## International Student Centre

At the International Student Centre (ISC) all students are welcome to take part in social and cultural programs with an international focus, or just take a break from the pressures of studies. ISC's Work and Study Abroad resource centre, provides information on overseas programs. ISC also offers special
with the admission offer), reception service and orientation events, English language program, Newsletter, personal counselling and advice on non-academic concerns.

Contact:
ISC, 33 St. George Street, Toronto, Ontario, M5S 2E3
Telephone: 416-978-2564
Web site: www.isc.utoronto.ca

## LGBTO Resources \& Programs Office

The Office of LGBTQ Resources \& Programs office works with students, staff and faculty to provide programs, services, training, resources and outreach on issues related to the LGBTQ population at the University of Toronto.

The office develops initiatives and programming which support the lives of individuals at the University of Toronto who are lesbian, gay, bisexual, transgender or queer, or questioning their sexual orientation or gender identity. Our initiatives also focus on providing a positive learning and work environment for all that is free of discrimination and harassment. Any member of the University community is welcome to contact the office with concerns, complaints, issues or ideas. Services are provided confidentially to anyone experiencing a problem related to heterosexism or homophobia, or who has questions, educational needs or other related concerns.

Contact: Jude Tate, MSW
Coordinator, LGBTQ Resources \& Programs
Email: lgbtq.resources@utoronto.ca
Phone: 4I6-946-5624
Room 302, 3rd Floor
Koffler Student Services Centre
214 College Street
Toronto, Ontario M5T 2Z9

## Office of the University Ombudsperson

As part of the University's commitment to ensuring that the rights of its individual members are protected, the University Ombudsperson investigates complaints from any member of the University not handled through regular University channels. The Ombudsperson offers advice and assistance and can recommend changes in academic or administrative procedures where this seems justified. In handling a complaint, the Ombudsperson has access to all relevant files and information and to all appropriate University officials. The Ombudsperson handles all matters in strict confidence, unless the individual involved approves otherwise. The Ombudsperson is independent of all administrative structures of the University and is accountable only to Governing Council.

The Ombudsperson is available by appointment at all three UofT campuses (for an appointment, please telephone or e-mail us). For additional information, please visit our website at: www. utoronto.calombudsperson.

222 College Street, Suite I6I,Toronto M5T 3JI
Telephone: 4I6-978-4874
E-mail: ombuds.person@utoronto.ca

## Psychiatric Service

The Psychiatric Service offers assessment and/or treatment for students with emotional and psychological concerns such

## Student Services \& Resources

relationship difficulties, eating and body image issues, attention and/or concentration problems, problems with sleep and substance abuse.

Clinical staff possess expertise in a wide variety of therapeutic methods including individual, couple and group psychotherapy. This is a confidential service available to all full and part-time students who have paid their incidental fees and is fully covered by OHIP, other provincial insurance plans or the University health Insurance Plan (UHIP),

Psychiatric Service is located in the Koffler Student Services Centre at 214 College Street, Main Floor. No referral is necessary. To make an appointment, drop in or call 416-9788070. For further information visit our Web site at www. utoronto.calpsychservices.

## Sexual Harassment Office

Sexual harassment is unwanted sexual attention \& includes any unwelcome pressure for sexual favours, or any offensive emphasis on the sex or sexual orientation of another person which creates an intimidating, hostile or offensive working or learning environment. The Sexual Harassment Office deals with complaints under the University's Policy \& Procedures: Sexual Harassment. The policy covers complaints of harassment based on sex or sexual orientation, sets out a formal resolution procedure \& provides for mediation, counselling \& public education. Members of the University may also contact the office on an informal basis for information or assistance in resolving an issue.

Calls to the office, \& the complaints procedure itself, are confidential.

You can contact the office just for advice or information: you are not committing yourself to any formal process.

Responsibilities of the Sexual Harassment Office include:

- providing information \& advice to all parties regarding sexual harassment complaints;
- acting as a non-partisan mediator in complaints;
- providing referrals to other offices \& resources when appropriate;
- initiating \& conducting public education activities such as talks,workshops, \& the distribution of resource materials.

3rd Floor, 40 Sussex Avenue
Telephone: (4I6) 978-3908, Fax Number: (4I6) 97I-2289
Call to make an appointment
Web Address: http://www.utoronto.ca/sho/

## Student Housing Service

The Student Housing Service on the St. George Campus and its web site serves as a year-round source of up-to-date housing information for off-campus, single student residence and student family housing.

## Residence

First year Arts \& Science students apply for residence by indicating their interest in residence on their application for admission. It is advisable to apply for residence when you apply to the University - do not wait until you have been admitted. For more information on University of Toronto residences visit our housing website at www.housing.utoronto.ca.

## U of T's Guarantee

For the 2007/2008 school year, a residence offer will be guaranteed for all full-time students entering their first year of university in an undergraduate program, whether they live outside or inside Toronto, who are offered admission by July Ist, and who have indicated their interest in residence on their application for admission.

If you wish to be considered for residence, but did not indicate your interest on the application form, contact the Admissions and Awards office as soon as possible - do not wait until you have been admitted. If you have received your Admission to the University but did not indicate that you were interested in residence on your application form, contact the Student Housing Service.

The University does not guarantee an offer of residence to students who did not indicate an interest in residence until after they were admitted to $U$ of $T$, or to those who are new to U of T but with previous university experience, such as transfer students. However, if they indicate an interest in residence, residence information and application procedures will be sent to them. The University will offer residence to this group of new students only once all students with the guarantee of residence have been accommodated.

## Student Family Housing

Family housing is available in 713 apartments on the St. George campus. Priority of these unfurnished apartments is given to students with a family. The term "family" refers to students residing with their dependent children and to childless couples in a permanent relationship. Students interested in living in U of T's Student Family Housing apartments should apply as soon as they are seriously considering attending the University - if possible before being given an offer of admission to the University, as the typical waiting period is 9 - 18 months. If you can move with less than two months' notice, the waiting period can be significantly shorter. Applications for Family Housing are available online at the Student Housing Service web site.

## Off-Campus Housing

The Student Housing Service has a registry of private and shared off-campus housing advertisements posted daily by private landlords and students. Students will search the ads in the registry like they would a classified section of a newspaper. Advertisements are usually posted 4-6 weeks in advance of the date when the unit becomes available. It generally takes students I - 3 weeks to locate suitable accommodation, depending on the type of housing desired and the student's budget. Most accommodations are located within 30-45 minutes travel time to campus, either by walking, cycling, or using public transit. Rooms in shared houses or apartments generally cost $\$ 350-\$ 600$ per month. Students requiring private apartments should expect to pay \$550-\$750 (Bachelor), \$700-\$900 (One bedroom), \$900-\$1300 (Two bedroom), or \$1300-\$1800 (Three bedroom house/apartment). The office has telephones available for students to use free of charge to contact landlords and arrange an inspection of the accommodation. As well, there are also temporary accommodation lists, maps, legal resources, movers and more available to students at the housing office. Undergraduate and graduate students may also view the ads on the Student Housing website using their $U$ of $T$ student number and birth date to login.

## Student Services \& Resources

For more information on any housing-related issue, contact:
University of Toronto Student Housing Service
Koffler Student Services Centre, 214 College Street
Toronto, Ontario M5T 2 Z9
Telephone: (416) 978-8045
Fax: (416) 978-1616
E-mail: housing.services@utoronto.ca
Web site: www.housing.utoronto.ca

## Student Exchange

## The International Student Exchange Office (ISXO)

## The World Could Be Yours!

Arts \& Science students in all departments are encouraged to participate in the international and Canadian exchanges offered through the International Student Exchange Office. These exchanges allow you to experience new cultures and languages in an academic setting while earning credits towards your $U$ of T degree. Exchanges may be for one term or a full year, and most are open to both undergraduate and graduate students.

## Cost

The cost of an exchange includes your $U$ of $T$ tuition plus incidental fees, along with the cost of living and studying abroad While on exchange, you are still eligible to receive government assistance such as OSAP. There are also many specific scholarships and bursaries run by various $U$ of $T$ offices, and the ISXO itself administers a needs-based bursary program; for exchange students who qualify, this bursary will usually cover at least the cost of airfare.

## Eligibility

In general, undergraduate or graduate $U$ of $T$ students who have completed at least one year of full-time studies, with a minimum CGPA of 2.25 , are eligible to apply. You must also achieve a minimum annual GPA of 2.5 for the year during which you apply. A few exchange programs do have higher GPA cutoffs, and others have special language requirements.

## Destinations

Arts \& Science students may choose from over 130 universities in the following locations:Argentina, Australia, Austria, Belgium, Canada, Chile, China including Hong Kong, the Czech Republic, Denmark, England, Estonia, Finland, France, Germany, Ireland, Israel, Italy, Japan, Kenya, Korea, Mexico, the Netherlands, New Zealand, Norway, Poland, Scotland, Singapore, Spain, Sweden, Switzerland, Taiwan, the USA, Wales, and the West Indies. Please check our website for an up-to-date list of listing of our exchange partners.

## Application

Applications for most programs are due mid-January, but you should always check the ISXO website regarding the specific exchanges that interest you.

For more information, please contact the ISXO:
Koffler Student Services Centre
214 College Street, Room 202
www.utoronto.ca/student.exchange/
student.exchange@utoronto.ca
Telephone: 4I6-946-3I38

## Summer Abroad Program

## Where will you be next summer?

Prepare yourself for a future in the global village by participating in one of the highly rated Faculty of Arts \& Science Summer Abroad programs. These programs are designed to enrich students' academic lives by providing an exciting and educational international experience.

## Locations

Administered through Woodsworth College, the 2007 programs are offered in:

```
Australia (Sydney)
-Central Europe (based in the Czech Republic)
- China (Hong Kong)
- England (Oxford)
- Ecuador (Amazon & Galapagos)
France (Tours)
-Germany (Berlin)
|taly (Siena)
 Japan (Tokyo)
- Jordan (Madaba)
Mexico (Guadalajara)
Russia (Moscow)
```

Check the Summer Abroad web site in the fall to see the 2008 program list!

## Courses

Students take specially designed University of Toronto undergraduate degree credit courses, relevant to the location, for a period of 4 to 6 weeks. The courses have field trips that complement and highlight the academic materials. Courses are taught predominantly by University of Toronto professors and, with the exception of language courses, are offered in English. Typically, full-year second and third year courses are offered in disciplines such as history, political science, management, literature, architecture, fine art, religion, and languages. Most courses do not have pre-requisites.

All Summer Abroad courses and grades show on students' transcripts as regular $U$ of $T$ credits and are calculated into their CGPA.

## Application

All University of Toronto students in good standing are eligible to apply. There is no minimum GPA requirement.

Applications are available in early January. The application deadline for most programs is March I, but spaces in some programs fill up well in advance. Late applications will be accepted if space and time permit.

Financial aid is available for most programs. The application deadline for awards offered through Woodsworth College is February $I$.

For further information please contact:
Professional \& International Programs
Woodsworth College
II 9 St. George Street, Room 23I/233
Phone: 4I6-978-87I3
E-mail: summer.abroad@utoronto.ca
Web: www.summeraboad.utoronto.ca

## Professional Experience Year

The Professional Experience Year (PEY) provides students an opportunity to gain work experience in fields related to their programs of study. Full-time students with a CGPA of at least 2.0 , with a minimum of 10.0 , and a maximum of 15.0 full course equivalents, may apply to spend a twelve-to- sixteen-month period working in a related industry. This internship period normally occurs after second year for students completing a B.A./B.Sc., or after second or third year for students enrolled in an Hon. B.A./Hon. B.Sc. The 12 to 16 -month period of employment, normally beginning in May, gives students the opportunity to become fully acquainted with the work environment. PEY students are often involved in challenging work projects from inception to completion, and are paid at competitive workforce salaries. They gain new insights into their academic and professional goals and return to their studies with a greater understanding of their discipline from a practical, hands-on perspective.

Students pay a one-time-only registration fee at the time of application. If a position is accepted, a placement fee will be required from the student at the time of fall registration, no later than the first Friday after classes begin in September. Incidental fees granting part-time student status and allowing continued access to University facilities and services are also required at fall registration. The PEY Program strives to provide opportunities for all students registered in it, but cannot guarantee employment. For further information, contact the PEY Office at 416-978-6649 or visit www.peyonline.com.

## Co-op Japan Program

The Co-op Japan Program is a Canadian university/college based, international co-op/internship program linking some of the best engineering, science, business and arts discipline undergraduate students from across the country with highly committed Japanese businesses. The Co-op Japan Program formally integrates an undergraduate student's Canadian academic studies with valuable work experience in a Japanese company. The program is open to universities and colleges nationally and is currently administered from The University of British Columbia.

The Co-op Japan Program's mandate is to provide Canadian undergraduate students with career-related work experience within a Japanese company during their undergraduate curriculum and at the same time to provide Japanese companies with the opportunity to employ highly capable and motivated Canadian undergraduate students.

The Program is open to undergraduate co-op students who meet certain eligibility requirements detailed on the program website. Applications can be made throughout the year for January, May or September start dates; students are encouraged to apply at least eight months prior to their requested start date.

For more information check the website at www. thecoopjapanprogram.com.

## Student Unions and Associations

The Arts and Science Students' Union (ASSU)

The Arts and Science Students' Union (ASSU) represents over 20,000 full-time undergraduates in the Faculty of Arts and Science on the St. George Campus. ASSU is an umbrella organization with 40 student Course Unions. Getting involved with a Course Union is the best way to be directly involved in your education and it's an excellent way to meet other students in your discipline. Annually, ASSU publishes student evaluations of courses and instructors in the ANTI-CALENDAR, which is free to all students. Other services include past final exams, lockers, photocopying, faxing and pop. Also, if you have any problems with your courses or instructors go to the ASSU office and discuss your options in complete confidence. ASSU is in Room 1068 Sidney Smith Hall; telephone 4I6-978-4903.

E-mail: students.assu@utoronto.ca
Web site: assu.ca

## The Association of Part-Time Undergraduate Students (APUS)

All part-time undergraduate students at the University of Toronto are members of APUS. The role of the Association is to ensure its members have access to a broad range of services, programs and resources within the University. This is achieved by representing part-time students throughout the decisionmaking process of the University, and of governments, as well as by acting as a voice for the concerns of its members. APUS also offers a number of scholarships and bursaries to part-time students throughout the year, and services such as final exams and photocopying. The APUS office, in Room 1089 of Sidney Smith Hall, is open days and evenings during the summer and winter sessions. For further information telephone 416-9783993.

## Writer-In-Residence

Each year the University appoints a well-known Canadian writer to work with students, faculty and staff interested in creative writing. For further information, contact the Department of English, 416-978-3I 90.

## Awards

For students with particularly noteworthy academic results, there are three specific forms of recognition:

## Recognition of Exceptional Academic Achievement:"Dean's List"

This designation is given to degree students in the Faculty having a Cumulative Grade Point Average of 3.50 or higher, at the end of the Fall-winter or Summer Session in which the fifth, tenth, fifteenth and twentieth course, offered by the Faculty and taken for credit, has been passed.

The Dean of the Faculty sends a signed certificate to each student. There is no monetary value. Students who satisfy these criteria but do not receive the certificate at the end of the appropriate session should write to the Faculty Registrar, Faculty of Arts and Science, Sidney Smith Hall, 100 St. George St., Toronto ON, M5S 3G3. Dean's List certificates are not issued at the end of the Fall Session.

## Student Services \& Resources

## Recognition of Exceptional Academic Achievement:"High Distinction" and "Distinction"

Students who graduate with a Cumulative GPA* of 3.50 or above are described as graduates "With High Distinction". This achievement is noted on the diploma and transcript.

Students who graduate with a Cumulative GPA* of 3.20 to 3.49 are described as graduates "With Distinction". This achievement is noted on the diploma and transcript.

* Note: the Cumulative GPA must be based on at least 5.0 credits taken in the Faculty and used for degree credit.


## Eaculty Scholarships

The Faculty offers many academically-based scholarships and other awards to exceptional degree students. Full details of these scholarships are available on the Faculty web site at www. artsci.utoronto.ca/current/undergraduate.

## Faculty of Arts \& Science Language Citation Program

The University of Toronto is an ideal place for students to pursue the advanced study of languages. Our students live in a country that promotes multiculturalism, and our university is located in one of the world's most diverse cities. We offer significant language opportunities in both ancient and modern languages. We also offer a variety of international academic programs and the number of such programs will expand. As our students seek further international study, work opportunities, and post-graduate study, they may be assisted by a notation on their academic record of language proficiency.

The Language Citation in the Faculty of Arts \& Science is official recognition on a student's transcript that the student has progressed to an advanced level in the study of a language, and has been assessed as achieving "good" results in that study. In particular, to achieve the Language Citation, a student must complete two full courses or their equivalent beyond the firstyear level of language instruction, and must achieve at least a B- in each of the courses beyond the introductory level. The two full-course equivalents may be language instruction or may be those taught in the language to be assessed.
The Language Citation will consist of a notation on the transcript that reads: "Completed Requirements of Language Citation in [name of language]." This will appear in the Arts \& Science sessional segment of the student's academic record on the transcript describing the courses and marks for the session in which the Citation is assessed as complete.
Note that Language Citation is not a "program of study" or Subject Post, and will not satisfy the degree requirement that specifies the minimum programs of study to qualify for the degree. The Citation may be of interest to those who are completing programs involving language study, but it may also be of interest to those whose program interests lie elsewhere, but wish to have achievement in a language noted on their academic record.

The Language Citation will be available to students beginning with the graduating class of 2007. Students who have already graduated may be eligible if they return for further language study that contributes to the assessment of the Citation. The Citation will not be assessed for students who have completed their studies and have not re-enrolled.

To be assessed for the Language Citation, students should contact the department or program that will be assessing the language for the Citation. They should present a copy of their academic record, and indicate which courses they would like considered for the assessment. If students already have proficiency in a language and wish to move directly to courses beyond the introductory level, they should consult the relevant department about appropriate placement. Also, students wishing to include courses taken in the country where the language is spoken should consult the relevant department about appropriate study abroad options.

The Citation can be earned in any language, modern or ancient, which provides sufficient advanced training at the University of Toronto, provided the unit offering the instruction participates in the Citation. Courses taken at the University of Toronto Mississauga or University of Toronto Scarborough may also be

## Student Services \& Resources

eligible for assessment for Arts \& Science students.
The entries below identify the languages in which a student may currently request an assessment for a Language Citation and the department at which to inquire.

## Aboriginal Studies Program

Aboriginal Studies participates in the Faculty of Arts and Science's Language Citation Initiative for Ojibwa. The study of Ojibwa is a demanding and intellectually rewarding educational experience. Successful study of this language demonstrates intelligence, discipline, analytical sophistication, and an excellent memory. The study of any language provides invaluable insights into the varieties of human culture and expression.

In each language the Language Citation recognizes a significant level of achievement in language study with a high level of academic success. The Citation in Ojibwa is available to students who complete ABS $210 Y \mid$ and earn a grade of at least $B$ - in ABS 310 YI and ABS 30IYI.

Students should note that, as explained on page 20 of this Calendar, the Language Citation is not equivalent to an academic program and that enrolment in a program is not necessary in order to earn the recognition bestowed by the Citation.

## Department of Classics

The Department of Classics participates in the Faculty of Arts and Science's Language Citation initiative for Ancient Greek and Latin. The study of Ancient Greek and Latin is a demanding and intellectually rewarding educational experience which makes available to the modern student the rich resources of classical texts in the original languages. Successful study of these languages demonstrates intelligence, discipline, analytical sophistication, and an excellent memory. The study of any foreign language provides invaluable insights into the varieties of human culture and expression.

In each language the Language Citation recognizes a significant level of achievement in language study with a high level of academic success. The Citation in Latin is available to students who complete LAT IOOYI (or the equivalent prerequisite training) and earn a grade of at least B- in LAT $201 \mathrm{HI}, 202 \mathrm{HI}$ and any two LAT courses at the 300 level.

The Citation in Ancient Greek is available to students who complete GRKIOOYI (or the equivalent prerequisite training) and earn a grade of at least B- in GRK $20 \mathrm{IHI}, 202 \mathrm{HI}$ and any two GRK courses at the 300 level.

Students should note that, as explained on page 20 of this Calendar, the Language Citation is not equivalent to an academic program and that enrolment in a program is not necessary in order to earn the recognition bestowed by the Citation. For the department's academic programs in Greek, Latin, Classics and Classical Civilization, see page 94.

## Department of East Asian Studies

The Department of East Asian Studies participates in the Faculty of Arts and Science's Language Citation initiative for Chinese, Japanese, and Korean. The study of any of these languages is a challenging and time consuming endeavour, which offers rich rewards for students interested in the cultures, societies, and economies of East Asia.

In each language the Language Citation recognizes a significant
level of achievement in language study with a high level of academic success. The Citation in Chinese is available to students who complete EAS IOOYI or EAS IOIYI (or the equivalent prerequisite training) and earn a grade of at least B - in EAS 200 Y I or EAS20IYI and EAS300YI. The Citation in Japanese is available to students who complete EASI2OYI (or the equivalent prerequisite training) and earn a grade of at least B- in EAS220YI and EAS 320 Y I. The citation is Korean is available to students who complete EASIIOYI (or the equivalent prerequisite training) and earn a B- in EAS2IOYI and EAS3IOYI.

Students should note that, as explained on page 20 of this Calendar, the Language Citation is not equivalent to an academic program and that enrolment in a program is not necessary in order to earn the recognition bestowed by the Citation. For the department's academic programs see page 122.

## Department of French

The Department of French participates in the Faculty of Arts and Science's Language Citation initiative for French.

In order to receive a language citation in our Department students should have completed any two course among the following with a minimum mark of B-: FSL 300+, FRE200+.

Students should note that, as explained on page 20 of this Calendar, the Language Citation is not equivalent to an academic program and that enrolment in a program is not necessary in order to earn the recognition bestowed by the Citation. For the department's academic program in French see page 173.

## Department of Germanic Languages and Literatures

The Department of German participates in the Faculty of Arts and Science's Language Citation initiative for German. The study of German is a demanding and intellectually rewarding educational experience, providing students with excellent resources for understanding the culture of the German speaking world. German is now the second foreign language after English in the countries of central and Eastern Europe, and its use is spreading within the European Community. Learning German opens the door to many intellectual, technical, political, and economic fields. Successful study of German demonstrates intelligence, discipline, analytical sophistication, and an excellent memory. The study of any foreign language provides invaluable insights into the varieties of human culture and expression.

The Language Citation recognizes a significant level of achievement in language study with a high level of academic success. The Citation in German is available to students who complete GERIOOYI (or the equivalent prerequisite training) and earn a grade of at least B- in GER200YI and GER300YI.

Students should note that, as explained on page 20 of this Calendar, the Language Citation is not equivalent to an academic program and that enrolment in a program is not necessary in order to earn the recognition bestowed by the Citation. For the department's academic program in German see page 200.

## Department of Italian Studies

The Department of Italian Studies participates in the Faculty of Arts and Science's Language Citation initiative for Italian. Proficiency in Italian is an invaluable asset for those wishing to pursue a career in social work, business, applied science, government, law, medicine or education. A knowledge of Italian

## Student Services \& Resources

complements undergraduate studies in other areas, such as music, fine art, literary studies, European history or political science, to name a few.

The Language Citation recognizes a significant level of achievement in language study with a high level of academic success. The Citation in Italian is available to students who, having completed a first year language course in Italian (ITAI00YI/IOIYI/I52YI) (or the equivalent prerequisite training), earn a grade of at least $B$ - in a second-year language course (ITA $250 \mathrm{Y} / / 25 \mathrm{IYI} / 252 \mathrm{YI}$ ) and in one FCE in Italian language at the 300 or 400 level.

Students should note that, as explained on page 20 of this Calendar, the Language Citation is not equivalent to an academic program and that enrolment in a program is not necessary in order to earn the recognition bestowed by the Citation. For the department's academic programs in Italian, see page 233.

## Department of Near \& Middle Eastern Civilizations

The Department of Near \& Middle Eastern Civilizations participates in the Faculty of Arts and Science's Language Citation initiative for Arabic, Persian, Ancient Egyptian, Ancient/Biblical Hebrew, and Modern Hebrew. The study of Ancient languages is a demanding and intellectually rewarding educational experience that makes available to the modern student the rich resources of classical texts in the original languages. The "living" languages offered by NMC provide invaluable insights into the varieties of human culture and expression and offer myriad directions in which to take the study of a foreign language.

Successful study of these languages demonstrates intelligence, discipline, analytical sophistication, and an excellent memory. In each language the Language Citation recognizes a significant level of achievement in language study with a high level of academic success.

The Citation in Ancient/Biblical Hebrew is available to students who complete NMLI50YI (or the equivalent prerequisite training) and earn a grade of at least B- in NML250YI and any 2 FCEs of the following additional Biblical Hebrew courses: NML25IYI, NML350YI, NML35IHI, NML352HI, NML353HI, NML354HI, NML359HI, NML450YI.

The Citation in Ancient Egyptian is available to students who complete NML240YI (or the equivalent prerequisite training) and earn a grade of at least B- in NML340YI and any 2 FCEs of the following additional Ancient Egyptian courses: NML24IYI, NML440YI, NML44IYI.

The Citation in Arabic is available to students who complete NML2IOYI (or the equivalent prerequisite training) and earn a grade of at least B- in NML3IOYI and any 2 FCEs of the following additional Arabic courses: NML4IOYI, NML4IIHI, NML4I2YI, NML4I3HI, NML4I4HI.

The Citation in Persian is available to students who complete NML260YI (or the equivalent prerequisite training) and earn a grade of at least B- in NML360YI and any 2 FCEs of the following additional Persian courses: NML460YI, NML46IH,I NML462HI. With the appointment of a Persian language and literature Lecturer commencing in July 2007, the departmental offerings will increase, adding a variety of electives.

The Citation in Modern Hebrew is available to students who complete NMLI55HI and NMLI56HI (or the equivalent prerequisite training) and earn a grade of at least B- in NML255YI
and any 2 FCEs of the following additional Hebrew courses: NML355YI, NML356YI, NML357HI, NML358HI, NML45IHI, NML452HI, NML455HI, NML465HI.

Students should note that, as explained on page 20 of this Calendar, the Language Citation is not equivalent to an academic program and that enrolment in a program is not necessary in order to earn the recognition bestowed by the Citation. For the department's academic programs, see page 330.

## Department of Slavic Languages and Literatures (Slavic Languages, Finnish and Hungarian)

The Department of Slavic Languages and Literatures participates in the Faculty of Arts and Science's Language Citation initiative. Students may achieve this Citation in Croatian, Czech, Polish, Russian, Serbian, and Ukrainian. It may be possible to complete the citation in other languages, e.g., Finnish and Hungarian. Students interested in completing the Language Citation in languages taught in the Slavic Department but not listed here should consult the Undergraduate Coordinator of the Department of Slavic Languages and Literatures.

Language study is a demanding and intellectually rewarding educational experience. Our students learn to communicate both orally and in writing in other languages and are thus able to experience other parts of the world in more intimate ways. Their access to other cultures opens doors for further study and employment. Students in our department also have the opportunity to read a vast array of world-renowned authors in the original languages, as well as works - normally not available in English - in other areas of study, for example, cinema studies, drama, folklore, history, intellectual history, philosophy, mathematics, and political science.

The Language Citation recognizes a significant level of achievement in language study. For course selection students should consult the Undergraduate Coordinator as early as possible since not every language course is offered each year. Students who begin language study at the Intermediate level should consult the Undergraduate Coordinator for approval of advanced literature and culture courses that may satisfy the requirements for the Language Citation.

## Slavic

The Language Citation in Croatian or Serbian is available to students who complete either SLA307YI or SLA3I6YI plus an additional FCE, approved by the department, in South Slavic literature or culture with readings and discussion in the target language with a grade of at least B-

The Language Citation in Czech is available to students who complete SLA204YI and 305YI with a grade of at least B-.

The Language Citation in Polish is available to students who complete SLA206YI, SLA306HI and SLA336HI with a grade of at least B-.

The Language Citation in Russian is available to students who complete, with a grade of at least B- , two FCEs: SLA220YI, SLA320YI, or SLA420YI.

The Language Citation in Ukrainian is available to students who complete SLA208YI Finno-Ugric

The Language Citation in Finnish is available to students who

## Student Services \& Resources

complete FIN200YI, FIN300HI, and FIN305HI with a grade of at least B-.

The Language Citation in Hungarian is available to students who complete HUN200YI and HUN3IOYI with a grade of at least B-.
Students should note that, as explained on the page 20 of this
Calendar, the Language Citation is not equivalent to an academic program and that enrolment in a program is not necessary in order to earn the recognition bestowed by the Citation. For the department's academic programs see pages 164 (Finno-Ugric Studies) and 409 (Slavic Languages and Literatures).

Department of Spanish and Portuguese
The Department of Spanish and Portuguese participates in the Faculty of Arts and Science's Language Citation initiative for Portuguese and Spanish.

## Portuguese

To complete the language citation students will normally complete the two language-sequence courses that follow the introductory level:

PRT220YI
PRT320YI

## Spanish

To complete the language citation students will normally complete the two language-sequence courses that follow the introductory level:

SPA220YI
SPA320YI
Native and bilingual speakers should complete SPA3I9YI and two additional half-courses in Spanish in the 300- or 400 -series.

Students should note that, as explained on the page 20 of this Calendar, the Language Citation is not equivalent to an academic program and that enrolment in a program is not necessary in order to earn the recognition bestowed by the Citation. For the department's academic programs see pages 386 (Portuguese) and 428 (Spanish).

## Degree Requirements

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Students completing a second Faculty of Arts \& Science degree: please see "Second Degree Requirements" below.

In the requirements below the word "course" means one full course equivalent-a "full course" or two "half-courses"; in the Programs and Courses section, "full courses" are listed as YI courses, and "half-courses" are listed as HI courses.

## Honours Bachelor of Arts/Honours Bachelor of Science

## General Degree Requirements

Please note: in the requirements below the word "course" means one full-course equivalent.

To qualify for an Honours Bachelor of Arts (Hon.B.A.) or Honours Bachelor of Science (Hon. B.Sc.), you must:
(a) Obtain standing (i.e., receive $50 \%$ or more) in at least 20 courses that meet the following criteria:
I. No more than six courses may be 100 -series.
2. At least six courses must be $300+$ series courses (no more than one $300+$ series transfer credit may be counted towards these six).
3. No more than fifteen courses may have the same threeletter designator ("AST","ENG", etc.).
(b) Complete one of the following program requirements One specialist program (which includes at least one course at the 400-level)
or
Two major programs, which must include 12 different courses or
One major and two minor programs, which must include 12 different courses

> or

Students registered in the Faculty before the 2000-2001 session may also complete three minor programs, which must include 12 different courses; this option is discontinued for students registering for the first time in 2000-2001 and thereafter.
Note: whether you receive an Hon. B.A. or an Hon. B.Sc. depends on the program(s) you complete; see Program Requirements, below.
(c) Complete the Distribution Requirement (see page 27).
(d) Obtain a Cumulative GPA of 1.85 or more by the time of graduation. Students who meet all the requirements for the Hon.B.A./Hon.B.Sc. except for the GPA requirement may elect to graduate with a B.A./B.Sc. degree provided they are In Good Standing (i.e., CGPA is 1.50 or more).

## Bachelor of Arts/Bachelor of Science

Effective for all students registered for the first time in a degree program in the Faculty of Arts and Science for the summer 2001 session and thereafter, the St. George Campus of the Faculty has discontinued the 15 course (three-year) B.A. and B.Sc. degrees. Students registered in a degree program in the Faculty before Summer 2001 may still choose a I5-course (three-year) degree; these students should consult their college registrar's office.

Students with a B.A. or B.Sc. who return to upgrade that degree to an Hon. B.A. or Hon. B.Sc. must exchange the B.A. or B.Sc. for an Honours degree. A B.A. leads only to an Hon. B.A.; a B.A. CANNOT be upgraded to an Hon. B.Sc., and a B.Sc. CANNOT be upgraded to an Hon. B.A. Students who upgrade to an Honours degree are not eligible to attend the convocation ceremony for the upgrade.

Different degree regulations apply to students who first registered
in the Faculty before Winter Session 1992; these students should consult their College Registrar.

## Graduation

Students who expect to graduate at the end of a given session must use the Student Web Service or notify their College Registrars in writing to make their degree requests by the dates specified in the Calendar. Prospective graduands should receive the following documents from the University:
I. a Program of Study Assessment form (late April/early October) from the program sponsor;
2. a letter from the Office of Convocation providing details of the convocation ceremony (late March/mid-October);
3. a Statement of Results (or letter for non-registered students) from the Office of the Faculty Registrar confirming degree eligibility (early June/late October).

## "Second Degree" Requirements

Students must petition through their college by June 30 to begin a second degree. Before applying, students are urged to determine whether a second degree is actually required for their purposes; for example, a "make-up" year as a non-degree student may satisfy admission requirements for graduate school. Students are governed by the rules of the Faculty in place at the time they commence their second degree. Students who already hold a degree from the Faculty of Arts and Science, the University of Toronto Scarborough or the University of Toronto Mississauga may complete a second degree only of an alternate type (i.e. if a student has a B.A. degree then he/she may not complete a second B.A. degree). The Faculty normally exempts students from the first year of the degree requirements (five (5.0) credits: four 100-level and one 200 -level), regardless of the number of previous degrees held. Second degree candidates may not repeat courses taken in a previous degree; they may however, count such courses towards satisfying pre-requisite and program requirements, on approval of the department/programs office concerned. A new Grade Point average will commence with the second degree courses.

## Program Requirements

Completion of a program of study (also known as a subject POSt) is only one part of the general degree requirements. Variations made in program details for individual students do not in any way affect degree requirements.

## Meaning of "Program"

Programs are groupings of courses in one or more disciplines; these groupings are listed with each college or department entry in the "Programs and Courses" section of this Calendar.

Types of programs are:
Specialist Program: a sequence of between 9 and 17.5 courses* in one or more disciplines. Specialist programs must include at least four 300+series courses, one of which must be a 400 -series course.

Major Program: a sequence of between 6 and 8 courses* in one or more disciplines. Major programs must include at least two $300+$ series courses.

Minor Program: a sequence of 4 courses* in one or more disciplines. Minor programs must include at least one 300+series course.

## PLEASE NOTE

Courses may have prerequisites not listed in the program but which must be taken. Programs which list optional courses do not necessarily list prerequisites. Students are responsible for fulfilling prerequisites; students enroled in courses for which they do not have the published prerequisites may have their registration in those courses cancelled at any time without warning.

## Program Requirements

I. You must enrol in at least one and no more than three subject POSts (of which only two can be majors or specialists), in the session in which you pass your fourth course (see the Registration Handbook and Timetable for details). Students admitted with transfer credit for four courses or more must do this immediately upon admission.)
2. You must meet any enrolment requirements for a program as stated in the Calendar. If you do not meet these requirements, you may be removed from the subject POSts.
3. The subject POSts(s) you complete determine whether you receive a science or an arts degree upon graduation. In the "Programs and Courses" section, each program indicates the type of degree to which it leads. For example, in the English section, the English Specialist listing is followed by "Arts program"; the Geology Major is followed by "Science program", etc.
To receive an Hon. B.Sc., for example:
One Specialist in a science area leads to an Hon. B.Sc.;
One Major in a science area plus one Major in an arts. area leads to either an Hon. B.Sc. or an Hon.B.A. - your choice (two Majors must include 12 different courses);

In combinations of one Major and two Minors, at least one Major, or both the Minors, must be in the Science area for an Honours Bachelor of Science (combinations must include 12 different courses).

## Note:

In biological and science programs there may be occasions when scientific observations are made by students on themselves or on fellow students. These include common diagnostic or immunization procedures. Unless a valid reason exists, students are expected to participate in such exercises. If any investigative work involving student participation does not form part of the program, participation is voluntary.

## Self-Designed Programs

Students may design their own Programs, which must be substantially different from any Program in this Calendar. Such a Program, if formally adopted by the student's College on the basis of its academic rigour and coherence, and if approved by the Committee on Academic Standards, will be accepted as fulfilling the degree requirement for certification in a Program (transcripts indicate only "Completed Self-designed Programs approved by ' $X$ ' College"). Since the approval process is necessarily a long one, students following this alternative must discuss this process with their College Registrar immediately after completion of the fourth course in the Faculty.

## Bachelor of Commerce (B.Com.) Degree Requirements

For the complete Commerce degree, program and course listing, see page 40.

## Bachelor of Commerce (B.Com.) Degree Requirements

This is a four-year Honours program.
To qualify for a Bachelor of Commerce degree, a student must:
(a) Complete twenty full-course equivalents, including no more than six 100-series courses;
(b) Complete the Commerce and Finance Program (see below);
(c) Complete the Faculty Distribution Requirement for B.Com. students (see below);
(d) Complete five full course equivalents from disciplines outside of Management (MGT), Economics (ECO), and Commerce (COM); (courses taken to fulfill (b) and (c) may be also counted towards meeting this requirement; see also III in Commerce and Finance Program below).
(e) Obtain standing (i.e., complete with a grade of $50 \%$ or more) in at least six 300 - or 400 -series courses, including at least one 400 -series course (no more than one $300+$ series transfer credit may be counted towards these six).
(f) Achieve a cumulative GPA of 1.85 or more by the time of graduation.

## Graduation

Students who expect to graduate at the end of a given session must use the Student Web Service or notify their College Registrars in writing to make their degree requests by the dates specified in the Calendar. Prospective graduands should receive the following documents from the University:
I. a Program of Study Assessment form (late April/late August) from the program sponsor;
2. a letter from the Office of Convocation providing details of the convocation ceremony (late March/mid-October);
3. a Statement of Results (or letter for non-registered students) from the Office of the Faculty Registrar confirming degree eligibility (early June/early September).

## Faculty Distribution Requirement for B.Com. Students

As part of the degree requirements for the B.Com., STUDENTS MUST COMPLETE ONE FULL COURSE EQUIVALENT IN EACH OF THE HUMANITIES, THE SOCIAL SCIENCES AND THE SCIENCES AREAS as defined below:
I. ONE full course equivalent must be from the Humanities (see Page 27).
2. ONE full course equivalent must be from the Social Sciences (MGT courses may be used to meet this requirement with the exception of MGT $120 \mathrm{HI}, 12 \mathrm{IHI}$ and COM IIOHI, which have NO Distribution Requirement status; see Page 27).
3. ONE full course equivalent must be from the Sciences (see Page 27), with the following exceptions:
All IO0-series courses in CSC, MAT, STA; STA $250 \mathrm{HI}, 255 \mathrm{HI}$, 257HI, 352YI.
4. NOTE: transfer students from University of Toronto Mississauga or Scarborough must meet the St. George Distribution Requirement.

## The Distribution Requirement

On the St. George Campus Arts and Science courses fall into three areas:

Humanities<br>Social Science<br>Sciences

To qualify for any degree you must complete at least one full course equivalent in each of these three areas, for a total of 3.0 full course equivalents.

Courses that you take as part of your Specialist, Major or Minor programs may also be used to count towards the Distribution Requirement.

To help you understand the Distribution Requirement, there is a sample student course enrolment on next page.

The courses in these three areas are as follows:

## Humanities

Courses with the three-letter designators below are Humanities courses. (In addition, other designators have courses in more than one area; these designators are listed on the next page.)

Architecture (ARC course designators)
Art History (FAH course designators)
Classics (CLA course designators)
Drama (DRM course designators)
East Asian Studies (EAS course designators)
English (ENG course designators)
Estonian (EST course designators)
Finnish (FIN course designators)
French (FCS, FRE, FSL course designators)
German (GER course designators)
Greek (GRK course designators)
History (HIS course designators); except HIS 103YI
Humanities First-Year Seminars (HUMI99 course designators)
Hungarian (HUN course designators)
Italian (ITA course designators)
Latin (LAT course designators)
Music (MUS, HMU,TMU course designators)
Near \& Middle Eastern Civilizations (NMC and NML course designators)
Philosophy (PHL course designators)
Portuguese (PRT course designators)
St. Michael's College Courses (SMC course designators)
Slavic Languages \& Literatures (SLA course designators)
Spanish (SPA course designators)
Visual Studies (VIS course designators; listed with Art)
World Literature (WLD course designators)

## Social Science

Courses with the three-letter designators below are Social Science courses. (In addition, other designators have courses in more than one area; these designators are listed on the next page.)

Archaeology (ARH course designators)
Economics (ECO course designators)
Mathematics: MAT $123 \mathrm{H}, 124 \mathrm{H}$ and 133 Y are Social Science courses; ALL other MAT are Science courses
Management (MGT course designators), except MGT $120 \mathrm{H}, 12 \mathrm{IH}, 123 \mathrm{H}$, which have NO Distribution Requirement status)
Political Science (POL course designators)
Sociology (SOC course designators)
Social Science First Year Seminars (SSC I99YI course designators)
Woodsworth College (WDW course designators)

## Science

Courses with the three-letter designators below are SCIENCE courses. (In addition, other designators have courses in more than one area; these designators are listed on the next page.) Some restrictions in the applicability of 100 -series Science courses apply to B.Com. students; see the Commerce Programs listing starting on page 40 of this Calendar for more information.

Actuarial Science (ACT course designators)
Anatomy (ANA course designators)
Applied Mathematics (APM course designators; listed with Mathematics)
Astronomy (AST course designators)
Biochemistry ( $\mathrm{BCB}, \mathrm{BCH}$ course designators)
Biology (BIO course designators); except JBS 229H
Cell \& Systems Biology (CSB course designators)
Chemistry (CHM course designators)
Computer Science (CSC course designators)
Ecology \& Evolutionary Biology (EEB course designators)
Geology (GLG course designators)
Human Biology (HMB course designators); all HMB courses except HMB438HI and 498 YI , which are both Humanities and Social Science courses
Immunology (IMM course designators)
Laboratory Medicine \& Pathobiology (LMP course designators)
Mathematics (MAT course designators); all Mathematics courses except $123 \mathrm{H}, \mathrm{I} 24 \mathrm{H}, \mathrm{I} 33 \mathrm{Y}$ I, which are Social Science courses)
Materials Science (MSE course designators)
Molecular Genetics \& Microbiology (MGY course designators)
Nutritional Sciences (NFS course designators)
Pharmacology (PCL course designators)
Pharmaceutical Chemistry (PHC course designators); all PHC courses except PHC470HI, which is a Social Science course)
Physical Education \& Health (PHE course designators)
Physics (PHY course designators)
Planetary Science (PLN course designators)
Physiology (PSL course designators)
Psychology (PSY course designators)
Science First-Year Seminars (SCII99 course designators)
Statistics (STA course designators); all STA courses except $220 \mathrm{H}, 22 \mathrm{IH}, 250 \mathrm{H}, 255 \mathrm{H}, 257 \mathrm{H}, \mathrm{JBS} 229 \mathrm{H}$ which have NO Distribution Requirement status)

## Courses Which Can Fall in More than One of the ThreeAreas

To find which area each course is in, check the individual course descriptions:
Aboriginal Studies (ABS course designators)
Anthropology (ANT course designators)
Asia-Pacific Studies (ASI course designators)
Diaspora \& Transnational Studies (DTS course designators)
Environment (ENV course designators)
European Studies (EUR course designators)
Geography (GGR course designators)
History \& Philosophy of Science and Technology
$\quad$ (HPS course designators)
Innis College (INI course designators)
Interdisciplinary First Year Seminars) (INXI99HI/YI course
$\quad$ designators)
Joint courses (JXX course designators)
Latin American Studies (LAS course designators)
Linguistics (LIN course designators)
New College (NEW course designators)
Religion (RLG course designators)
Trinity College (TRN course designators)
University College (UNI course designators)
Victoria College (VIC course designators)
Women and Gender Studies (WGS course designators)

## Sample Student Course Enrolment Allowing for Distribution Requirements

Sokit wants to do a major in political science and a major in anthropology. She needs ANT IOOYI for the first year of an anthropology major and POL 103 YI or 105 YI or 108 YI for the first year of the political science major. She is also interested in sociology, so chooses SOC IOIYI.

The ANT, POL, and SOC courses are in Social Sciences, so they fulfill that part of the Distribution Requirement. She needs the following to fulfill the rest of her Distribution Requirement:

> One course from Humanities
> One course from Sciences

Sokit thinks that a History course would be a useful complement to her Political Science interest; at the same time it will fulfill the Humanities Distribution Requirement, so she enrols in HIS I04YI: Ten Days that Shook the World.

To fulfill the Science Distribution Requirement she chooses ENV 200YI: Science and the Environment.

Sokit's first year courses (and their respective Distribution Requirement areas) are thus as follows:

| ANT I00YI | Introduction to Anthropology <br> (Social Science) |
| :---: | :--- |
| ENV 200YI | Assessing Global Change <br> (Sciences) |
| HIS I04YI | Ten Days that Shook the World <br> (Humanities) |
| POL I05YI | Ethics \& the Public Sphere <br> (Social Science) |
| SOC IOIYI | Introduction to Sociology <br> (Social Science) |

Sokit's course choices fulfill the first year course requirements for the programs she wants to pursue; they also fulfill all three Distribution Requirements, giving her lots of flexibility in future years.

## Humanities Courses for Science and Social Science Students

These courses are especially designed for science and social science students to fulfill the Humanities Distribution Requirement; none of them has OAC/Grade 12 prerequisites.

CLA20IHI Latin and Greek in Scientific 39L Terminology
The study of technical and scientific terms derived from Latin and Greek: word elements, formation, analysis. The course is designed to give students in any field of specialization a better grasp of the derivation and basic meaning of English words derived from Latin and Greek elements.

CLA203HI Science in Antiquity 39L
The first scientific traditions in the classical Mediterranean and the Near East, with emphasis on Greek science. Discussions of early physical science, biology, mathematics, and astronomy, and their place in ancient life and thought, based on primary sources in translation. Designed for students in both the sciences and humanities.

CLA204HI Introduction to Classical 39L Mythology
A survey of the myths and legends of ancient Greece (and their extension to Rome) with some consideration of their role in ancient and modern literature and art.
Exclusion: CLA205YI
CLA206HI Ancient Astronomy
39L
The rise, development, and practical applications of the study of the heavens in Mesopotamia, Egypt, and the Greco-Roman world.

## FCSI95HI French Culture from

26S
Napoleon to Asterix
A multi-media course, analyzing the contributions the French have made to world culture in such domains as architecture, art, literature, and music, as well as some of the implications of the appropriation of French cultural icons by big business and the media.

## FCS298HI French Culture and Asia

From the arrival, in 17th century, of magnificent porcelain from the East to the borrowings of contemporary fashion designers, French culture has been exposed to Asian influences which have become part of the national fabric. This course explores some of these manifestations in literature, film and the arts.

## HPSI00HI Introduction to History and 26L, I3T Philosophy of Science

An investigation of some pivotal periods in the history of science with an emphasis on the influences of philosophy on the scientists of the period, and the philosophical and social implications of the scientific knowledge, theory and methodology that emerged.

HPS20IHI Origins of Western Technology 26L, I3T
Technology and its place in our culture from Antiquity to the beginnings of the Industrial Revolution. Relations between technology and science, religion, the arts, social institutions, and political beliefs.
This is a Humanities course

| HPS202HI | Technology in the <br> Modern World |
| :--- | :--- |

A survey of technical change and its social implications from the Industrial Revolution to the present.
Recommended preparation: HPS20IHI

## HPS2IOHI Scientific Revolutions I <br> 26L, I3T <br> (formerly HPS200YI)

Case studies in the history of science from antiquity to 1800 , including the revolutionary work of Copernicus, Kepler, Galileo, Descartes, Newton, Linnaeus, Lavoisier, and Herschel. The course is designed to be accessible to science students and non-scientists alike.
Exclusion: HPS200YI
HPS2IIHI 26L, I3T

Case studies in the history of science from 1800 to 2000, including
Volta, Lyell, Darwin, Mendel, Einstein, Schrödinger, Watson, and
Crick. The course is designed to be accessible to science students and non-scientists alike.
Exclusion: HPS200YI

## HPS250HI Introductory Philosophy 26L, I3T of Science

This course introduces and explores central issues in the philosophy of science, including scientific inference, method, and explanation. Topics may include underdetermination, realism and empiricism, and laws of nature.
This is a Humanities course

## HUMI99HI/ First Year Seminar

 YIThe Faculty offers several different sections of HUM $199 \mathrm{HI} / \mathrm{YI}$, open only to students newly-admitted to the St. George campus of the Faculty. Check the First-Year Handbook for detailed course descriptions.

## JEF IOOYI The Western Tradition

An introduction to literature through major works of the Western literary tradition. What constitutes a literary "classic"? How have the great concerns of the Western tradition - human nature, its place in society, its mythmaking, its destiny - been represented in literature? These and other questions are examined by reference to $11-12$ works, from ancient times to the twentieth century, by such authors as: Homer, Sophocles, Ovid,Virgil, Dante, Shakespeare, Cervantes, Molière, Austen, Dostoevski, Kafka, Camus, Beckett and Márquez. (A joint course offered by the Departments of English and French.)

## Science Courses for Humanities \& Social Science Students

These courses are especially designed for humanities and social science students to fulfill the Science Distribution Requirement; none of them has OAC/Grade 12 prerequisites.

## ASTIOIHI The Sun and Its Neighbours 26L

Our place in the Universe. Phenomena we see in the sky. What we know about the Sun, the planets and comets, and the formation of the solar system - and how we know it. What makes planets suitable for life. Finding out about the nearest stars and their planets.
This course is intended for students with no science or engineering background.
Exclusion:ASTI2IHI, $210 \mathrm{HI}, 22 \mathrm{IHI}$. Also excluded are CIVIOIHI, any 100- or higher-series CHM/PHY courses taken previously or concurrently (with the exception of PHYIOOHI, 101 HI , $201 \mathrm{HI}, 205 \mathrm{HI}, \mathrm{CHM} 200 \mathrm{YI})$

## AST20IHI Stars and Galaxies 26L

What we know about the properties and life cycles of stars, of galaxies, and of the Universe itself - and how we know it. How astronomers develop methods for understanding phenomena that span such vast ranges in distance and time.
This course is intended for students with no science or engineering background.

Exclusion: ASTI $21 \mathrm{HI}, 210 \mathrm{HI}$. Also excluded are CIVIOIHI and any 100- or higher-series CHM or PHY courses taken previously or concurrently (with the exception of PHYIOOHI, $101 \mathrm{HI}, 20 \mathrm{IHI}, 205 \mathrm{HI}, \mathrm{CHM} 200 \mathrm{YI})$
AST2IOHI Great Moments in Astronomy 26L
The history of Western astronomy: Copernican Revolution to twentieth century astrophysics. Emphasis is placed on the process of discovery which has led to major advances in knowledge about the Universe. The course ends with an outline of one of the most significant puzzles of our day and an examination of the potential for a new revolution in knowledge in our lifetime.
Exclusion:ASTIOIHI, $121 \mathrm{HI}, 201 \mathrm{HI}$

## CSB200YI Current Topics in Molecular 52L, 26P

 BiologyThis course is intended to provide non-science students with an understanding of basic concepts in molecular biology to allow them to explore, and analyze current scientific issues and controversies covered in the media and relevant to society at large.
This course counts as a Science Distribution Requirement for students in all years and disciplines; particularly suitable for Humanities and Social Science students.
Exclusion: BIO250YI/255YI

| CSCIO4HI | The Why and How of 26L, I3T <br> Computing |
| :--- | :--- |

An introduction to computing for non-computer scientists.
History of computing machinery; representation of data and their interaction with operations; hardware, software, operating systems; problem solving and algorithms; social issues in computing; a gentle introduction to programming. This course is an introduction to becoming actively engaged with computing, not a tutorial on using particular computer applications.
Exclusion: SMCI04HI;VICI04HI; any CSC course.
$\begin{array}{ll}\text { EEB202HI } & \begin{array}{l}\text { Plants and Society } \\ \text { (formerly BOT202Y }\end{array}\end{array}$
26L

The continuing impact of new scientific technologies on society through changes in agriculture. Plant biology and domestication, genetic resource conservation, biological invasions, environmental pollution, genetic engineering, and biotechnology. Evaluation of the ecological implications of advances in modern plant science.
Exclusion: BIOI50Y/BOT202YI
This course counts as a Science Distribution Requirement for students in all years and disciplines.

## EEB2I4HI Evolution and Adaptation 26L, I2T <br> (formerly ZOO214YI)

Evolution and adaptation through natural selection. Concepts and application based on faunal life goals of habitat survival, food acquisition, predator avoidance, and reproduction. Topics include: speciation, mutation, co-evolution, symbiosis, pollination, cannibalism, parasitism, eusociality, and sexual and parental conflict. Essays, debates, and reading required.
Exclusion: BIOI $50 \mathrm{YI} / 323 \mathrm{HI} / E E B 323 \mathrm{HI} / \mathrm{ZOO} 2 \mathrm{I} 4 \mathrm{YI} / 324 \mathrm{YI}$
This course counts as a Science Distribution Requirement for students in all years and disciplines.
EEB2I5HI Conservation Biology
26L, 13T (formerly ZOO2I5HI)
Introduction to the scientific discipline that deals with threats, losses and recovery of endangered wildlife. Topics include: biodiversity, extinction, demography, genetic diversity, nature reserves, captive breeding; also endangered species laws, moral philosophies, and political, economic and social justice issues surrounding biodiversity. Essays and reading required.
Exclusion: EEB/BIO $365 \mathrm{HI} / Z O O 215 \mathrm{HI}$
This course counts as a Science Distribution Requirement for students in all years and disciplines.

## EEB216HI

## Marine Mammal Biology and Conservation <br> (formerly ZOO216HI)

Introduction to ecological, evolutionary, physiological, and anatomical adaptations of marine mammals to their aquatic environment. Issues of conservation and environmental biology will also be covered. In tutorials the use of anatomical specimens (skulls, teeth, etc.) will be supplemented with video and other teaching tools.
Prerequisite: Biology 12 or equivalent
Exclusion: BIO/ZOO 216HI/252YI; SCII99YI: Marine Mammals in Their Environment
This course counts as a Science Distribution Requirement for students in all years and disciplines.
ENV200YI Assessing Global Change: 52L, I2T Science and the Environment
The perspective scientists bring to the understanding and resolution of environmental concerns having global implications: atmospheric systems and climate change, the biosphere and conservation of biodiversity.
Exclusion: BIOI50YI (applies only to students in Arts \& Science)
This Science course is intended to fulfill the environmental literacy requirement for students in the BA programs of the Centre for Environment or the science distribution course requirement for Commerce, Humanities and Social Science students.

## GLGI03HI Geology in Public Issues 26L

Geologic hazards: earthquakes, volcanoes, landslides, tsunamis. The distribution and politics of natural resources, including petroleum and ore deposits. Nuclear power and nuclear waste disposal. Global change: the geologic record of hot and cold climates, and how the earth survives.
GLGI03HI is primarily intended as a science Distribution Requirement course for Humanities and Social Science.

## GLGI05HI Evolution of the Earth: 26L Controversy over the Last $\mathbf{2 3 0 0}$ Years

The evolution of ideas about the origin and development of the earth from the Athenians to the 20th Century. With attention on whether the earth has an infinite or a finite life; on the evolution and disappearance of species; on the origin of oceans, continents and mountains; on the forces that have shaped the earth's surface; and on the courage of scientists in confronting the religious and political views of their time.
GLGI05HI is primarily intended as a science Distribution Requirement course for Humanities and Social Science students.

GLGIIOHI Introductory Geology 26L
The nature and evolution of the Earth; plate tectonics; rocks and minerals; volcanism; geological time; fossils; geology of Ontario; environmental issues.
Exclusion: GLG I02HI
GLGIIOHI is primarily intended as a science Distribution Requirement course for Humanities and Social Science students
GLG205HI Confronting Global Change 26L, 8T
The emergence of society as a major geological force is considered in terms of the evolving debate about the consequences of human activity for the habitability of our planet. Major issues such as climate change, environmental pollution, and depletion of natural resources are examined.
GLG205HI is primarily intended as a science Distribution Requirement course for Humanities and Social Science students

## HPSI00HI Introduction to History and 26L, I3T Philosophy of Science <br> An investigation of some pivotal periods in the history of science

 with an emphasis on the influences of philosophy on the scientists of the period, and the philosophical and social implications of the scientific knowledge, theory and methodology that emerged.
## HPS2IOHI Scientific Revolutions I 26L, I3T

 (formerly HPS200YI)Case studies in the history of science from antiquity to 1800 , including the revolutionary work of Copernicus, Kepler, Galileo, Descartes, Newton, Linnaeus, Lavoisier, and Herschel. The course is designed to be accessible to science students and non-scientists alike.
Exclusion: HPS200YI
HPS2IIHI Scientific Revolutions II 26L, I3T (formerly HPS200YI)
Case studies in the history of science from 1800 to 2000 , including Volta, Lyell, Darwin, Mendel, Einstein, Schrödinger, Watson, and Crick. The course is designed to be accessible to science students and non-scientists alike.
Exclusion: HPS200YI

| JUM202HI | Mathematics as an <br> Interdisciplinary Pursuit <br> (formerly JUMI02HI) |  |
| :--- | :--- | :--- |

A study of the interaction of mathematics with other fields of inquiry: how mathematics influences, and is influenced by, the evolution of science and culture. Art, music, and literature, as well as the more traditionally related areas of the natural and social sciences may be considered. (Offered every three years) Exclusion: JUMIO2HI
JUM202HI is particularly suited as a Science Distribution Requirement course for Humanities and Social Science students.

JUM203HI | Mathematics as Recreation 26L, I3T |
| :--- |
| (formerly JUMI03HI) |

A study of games, puzzles and problems focusing on the deeper principles they illustrate. Concentration is on problems arising out of number theory and geometry, with emphasis on the process of mathematical reasoning. Technical requirements are kept to a minimum. A foundation is provided for a continuing lay interest in mathematics. (Offered every three years)
Exclusion: JUMIO3HI
JUM203HI is particularly suited as a Science Distribution
Requirement course for Humanities and Social Science students.

## JUM204HI Mathematics and Poetry 39L

An interdisciplinary exploration of creativity and imagination as they arise in the study of mathematics and poetry. (Offered every three years)
Exclusion: JEM204HI
JUM204HI is particularly suited as a Science Distribution Requirement course for Humanities and Social Science students.

JUM205HI Mathematical Personalities 26L, I3T (formerly JUMI 05HI)
An in-depth study of the life, times and work of several mathematicians who have been particularly influential. Examples may include Newton, Euler, Gauss, Kowalewski, Hilbert, Hardy, Ramanujan, Gödel, Erdös, Coxeter, Grothendieck. (Offered every three years)
Exclusion: JUMI05HI
JUM205HI is particularly suited as a Science Distribution Requirement course for Humanities and Social Science students.

## PHYIOOHI The Magic of Physics 26L, 13T

In 1915 Einstein presented a quartet of papers that revolutionized our understanding of gravity. He commented:"Hardly anyone who has truly understood this theory will be able to resist being captivated by its magic." The General Theory of Relativity is not the only theory of physics that is magical, and Einstein was not physics' only magician. We uncover the wonders of the classical and the quantum world courtesy of Galileo, Newton, Maxwell, Einstein, Heisenberg and others. Topics include planetary motion, chaos, the nature of light, time travel, black holes, matter waves, Schrödinger's cat, and quarks. No mathematics is required, and any necessary elementary classical physics is reviewed.
Exclusion: PHYIIOYI/I38Y/I40Y taken previously or concurrently PHYIOOHI is primarily intended as a Science Distribution

Requirement course for students in the Humanities and Social
Sciences.

## PHYIOIHI Emergence in Nature 26L, I3T

The universe is not a rigid clockwork, but neither is it formless and random. Instead, it is filled with highly organized, evolved structures that have somehow emerged from simple rules of physics.
Examples range from the structure of galaxies to the pattern of ripples on windblown sand, to biological and even social processes. These phenomena exist in spite of the universal tendency towards disorder. How is this possibleP Self-organization challenges the usual reductionistic scientific method, and begs the question of whether we can ever really understand or predict truly complex systems.
Exclusion: PHYIIOYI/I38Y/I40Y taken previously or concurrently PHYIOIHI is primarily intended as a Science Distribution

Requirement course for students in the Humanities and Social Sciences.

## PHY20IHI Concepts of Physics 26L, I3T

A conceptual overview of some the most interesting advances in physics and the intellectual background in which they occurred. The interrelationship of the actual practice of physics and its cultural and intellectual context is emphasized.
PHY20IHI is primarily intended as a Science Distribution Requirement course for students in the Humanities and Social Sciences.

## PHY205HI The Physics of Everyday Life 26L, 13T

An introduction to the physics of everyday life. This conceptual course looks at everyday objects to learn about the basis for our modern technological world. Topics may include anything from automobiles to weather.
Exclusion: PHYIIOYI/I38Y/I40Y taken previously or concurrently PHY205HI is primarily intended as a Science Distribution

Requirement course for students in the Humanities and Social Sciences.

## SCII99HI First Year Seminar Courses

YI
The Faculty offers many sections of $\mathrm{SCl} 199 \mathrm{HI} / \mathrm{Y} \mathrm{I}$, open only to students newly-admitted to the St. George Campus of the Faculty. Check the First-Year Handbook for detailed course descriptions.

## Guide to Programs and Courses

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## Guide to Programs and Courses

## Definition of "Course" in this Calendar

In these two pages the word "course" is used in two senses:
I. In reference to a single course (such as "standing in a course" etc.) "course" refers equally to a full course or a half course.
2. In reference to a given number of courses (such as the requirement of obtaining standing in at least 20 courses for an HBA or HBSc) "courses" refer to FULL courses OR the equivalent number in FULL AND HALF courses combined. To "pass a course" or "obtain standing in a course" normally means to obtain a mark of 50 or more in that course.

## Codes used in the Program of Study Listings

"Specialist Program ( $X$ full courses or their equivalent)";" $X$ " is the number of courses required for that program out of the total of 20 courses needed for an Hon. B.A. or Hon. B.Sc.
"Major Program ( $X$ full courses or their equivalent)";" $X$ " is the number required for that program out of the total of 20 courses needed for an Hon. B.A. or Hon. B.Sc.
"First Year", "Second Year", etc.: Sequences of courses are given as guides, but need not be followed in the exact order listed, provided all pre- and co-requisites are observed.

Higher Years $=$ Second, Third and Fourth Years
An oblique stroke ("l") means "or". A comma and a semicolon both mean "and".

200-series $=$ courses numbered in the 200's ONLY;
$200+$ series $=$ courses in the 200's or 300's or 400's
$300+$ series $=$ courses numbered in the 300's or 400's
Approved = approved by the college or department sponsoring the program

Group = a group of related courses; Groups are at the end of the relevant program listings

Courses $=$ full courses or the equivalent in full and/or half courses.

The code Yl or HI in a course code in this Calendar indicates the credit value:

YI = a full course, for which one credit is given, e.g., ANT IOOYI;
$\mathrm{HI}=\mathrm{a}$ half course, for which one-half credit is given, e.g., HIS 32 IHI .

## Choosing Courses

NOTE:While Departmental counsellors and College Registrars are always available to give advice, THE ULTIMATE RESPONSIBILITY RESTS WITH THE STUDENT for completeness and correctness of course selection, for compliance with exclusions, prerequisite and co-requisite requirements, for completion of Program details, for
proper completion of the Distribution Requirement, and for observance of regulations, deadlines, etc. Students are responsible for seeking guidance from a responsible officer if they are in any doubt; misunderstanding, misapprehension or advice received from another student will not be accepted as cause for dispensation from any regulation, deadline, Program or Degree requirement.

## Please Note:

I. The Council of the Faculty of Arts and Science reserves the right to change the content of, or to withdraw, any course. In such cases every effort is made to provide equivalent alternative instruction, but this cannot be guaranteed.
2. The Faculty reserves the right to limit the number of students in any course or any section of a course if the number wishing to take the course should exceed the resources available. Notwithstanding this, every effort is made to accommodate students in 100 -series courses.

## Key to Course Descriptions

Course descriptions, in alphabetical order by Department/ College, are listed in the "Programs and Courses" section starting on page 37 . For an explanation of terms and abbreviations used in these descriptions, including prerequisites, co-requisites, exclusions, etc., see below. Students may choose from among these courses, subject to the following rules:
I. Students must satisfy the degree and program requirements and other regulations set out in the Calendar and its supplements.
2. Students must meet all prerequisite, co-requisite and exclusion requirements.
3. Students may take no more than six 100 -series courses for degree credit.

## Number of Courses Taken ("Course Load")

Students may proceed towards the degree at a rate of their own choosing, except as provided below:
I. The recommended course load for full-time students in each of the Fall and Winter Sessions is no more than five courses.
2. The recommended course load during the Summer Session is a maximum of two courses.
3. Students "On Academic Probation" may take no more than five courses in each of the Fall and Winter Sessions except as provided under "students restricted to a reduced course load" (see 4. below).
4. Students restricted to a reduced course load on admission may take no more than 2.5 courses over the Fall-Winter Sessions. They may take no more than 3 course activities in a Fall or Winter Session unless approved by their College Registrar. They may take a maximum of 1.0 courses in the Summer Session. Students restricted to part- time studies who wish to transfer to full-time studies should consult with their College Registrar.)
5. Students should attempt to balance their course load between the Fall-Winter Sessions.

## Guide to Programs and Courses

6. To calculate course loads, students should consult this Calendar together with the Registration Handbook \& Timetable.
The code "YI" or "HI" in a course code in the Calendar indicate the credit value:
YI = a full course, for which one credit is given, e.g., ANT I00YI
$\mathrm{HI}=\mathrm{a}$ half-course, for which one-half credit is given, e.g., HIS 332HI
7. In the Timetable a section code is associated with a course code to indicate when the course is offered:
F = first half of the Fall-Winter Sessions (Sept-Dec), or first half of the Summer Session (May-June), e.g., HIS 322HI F
S = second half of the Fall-Winter Sessions (Jan-Apr), or second half of the Summer Session (July-Aug), e.g., HIS 322 HI S
Y = Fall and Winter sessions, or First and Second subsessions of the Summer Session, e.g., ANT IOOYI Y
8. Students should note that courses designated as "...YI F" or "...YI S" in the Timetable are particularly demanding.
9. Full-time students (except those in 3. and II.) may select a sixth course during the second round of course enrolment (se the Registration Handbook and Timetable for details).
10. Students are advised to use discretion in adding any more courses to their program than the number recommended in I. and 2 . Students will not receive special consideration of any kind on account of a course overload. Examination schedules may be affected by a course overload.
II. In each of the Fall and Winter Sessions, students who are in good standing may add additional courses, beyond six, through their College Registrar. In the Summer Session, students may add additional courses, beyond two, through their College Registrar. The College Registrar, following Faculty guidelines, has the discretion to approve such requests. Note: students enrolled in Commerce and Computer Science subject POSts cannot add additional courses.
11. Students are not allowed a sessional course activity overload in any session until they have completed four full courses in the Faculty. This applies to first year students and transfer students from other institutions.

## "Extra" and "Supplemental"

## Courses

Each course counts for credit towards a degree unless:

- the course is a 100 -series course and the maximum of SIX I00-series courses allowable for degree credit has already been completed; it will then be designated as an "Extra"."Extra" courses have no effect on status or Grade-Point Average; or
- advance permission has been given by petition for a course to be taken as an "Extra" course. Students may not petition to have completed courses designated as "Extra", nor will they be removed from the record. "Extra" courses have no effect on status or Grade-Point Average; or
- more than the maximum number of courses allowed with the same designator have been passed. These "supplemental" courses will count in the grade point average, program and distribution requirements.


## Year of Study

The University of Toronto uses the following to define the year equivalency and therefore the academic status of a student:

4th year St. George degree student: has completed 14.0 full course equivalents or more;

3rd year St. George degree student: has completed 9.0 to I3.5 full course equivalents;

2nd year St. George degree student: has completed 4 to 8.5 full course equivalents;

Ist year St. George degree student: has completed less than 4 full course equivalents.

## Full/Part-Time Status

## Part-time status

A student enroled in 2.5 full course equivalents or fewer for the Fall-Winter sessions is considered to be part-time.

A student enroled in I.O full-course equivalents or fewer for the Summer session is considered to be part-time.

## Full-time status

A student enroled in 3.0 full course equivalents or more for the Fall-Winter sessions is considered to be full-time.

A student enroled in 1.5 full-course equivalents or more for the Summer session is considered to be full-time.

## Cancelling Courses, Repeating Courses, Courses Outside the Faculty and University

For further information on these matters see pp. 473-474..

## Codes Used in the Course Descriptions

## Course Designators

Course designators are the three-letter codes which appear at the beginning of each course code (e.g., CHM is the designator for chemistry courses; PHL for philosophy courses).

All courses are listed in the following pages by sponsoring department in alphabetical order. See the Table of Contents for a complete listing of sponsoring departments, and page 38 for a full alphabetical list of programs available to students in the Faculty.

## Course Number

The course number generally indicates the level of difficulty, e.g., a 100 -series course normally indicates an introductory course, a 400 -series course is an intensive course at the senior level. In some departments several courses may have the same general title; in these cases, the numbers are listed together, separated by "l" which means "OR"; for instance, "ECO 350YI/35IHI/ $352 \mathrm{HI} "=$ ECO 350 YI OR ECO 35 IHI OR ECO 352 HI , each one being a seminar on a selected subject.

## Guide to Programs and Courses

## "YI" and "Hل" Course Suffixes

The codes "YI" or "HI" in a course code in the Calendar indicate the credit value:

YI = a full course, for which one credit is given, e.g., ANT I00YI
$\mathrm{HI}=\mathrm{a}$ half-course, for which one-half credit is given, e.g., HIS 322 HI .

## Types and Duration of Instruction

$\mathrm{L}=$ Lectures
$\mathrm{S}=$ Seminars
$\mathrm{P}=$ Practical work in laboratories or studios
$\mathrm{T}=$ Tutorials

In the Fall-Winter Sessions the normal period of instruction is 26 weeks; the Fall Session lasts 13 weeks, and the Winter Session lasts 13 weeks. The number preceding the instruction codes opposite the course number and title indicates the total number of hours of instruction given in the course. The number of hours listed is approximate only; the actual contact hours of a course, or of different sections of a course, may vary from the number indicated in the Calendar, due to the size of the class or section, and the use being made of the tutorial or practical components of the class. This variation is at the discretion of the "course sponsor" (the college or department sponsoring the course); any questions concerning the allotment of hours in a course should be addressed to the course sponsor.

## Prerequisites, Co-requisites, etc.

Students are responsible for fulfilling prerequisites and corequisites; students enroled in courses for which they do not have the published prerequisites may have their registration in those courses cancelled at any time without warning. Students must also observe exclusions. Failure to meet these requirements may result in academic difficulties. If students withdraw from a course they must also withdraw from any course for which it is a co-requisite unless the Department giving the latter course agrees to waive the co-requisite.

## Explanation of Symbols

The comma (,) the semi-colon(;) the ampersand (\&) and the plus sign (+) all mean "AND". The slash (/) means "OR".

## Exclusions

Students may not enrol in a course if that course lists as an exclusion a course they are currently taking or a a course they have already passed. If allowed by special permission to enrol in an excluded course, the second course taken will be listed as an "Extra" course. Students will be required to withdraw from the course if discovered during the session of enrolment and will be refused degree credit in the excluded course if discovered at any time in a subsequent session.

## Prerequisite

A course (or other qualification) required as preparation for entry to another course. If students consider that they have equivalent preparation, they may ask the Department concerned to waive the stated prerequisite.

## Co-requisite

A requirement to be undertaken concurrently with another course. The co-requisite will be waived if a student has previously obtained standing in it, or if the Department consents.

## Recommended Preparation

Background material or courses that may enhance a student's understanding of a course.

The next page shows a course description in diagram form, with explanations of all the various symbols.

## Section Code

Section codes do not appear in the Calendar. In the Registration Handbook \& Timetable, however, a section code is listed with a course code to indicate when the course is offered:

F = first half of the Fall-Winter Sessions (Sept-Dec), or first half of the Summer Session (May-June), e.g., HIS 322HI F
S = second half of the Fall-Winter Sessions (Jan-Apr), or second half of the Summer Session (July-Aug), e.g., HIS 322HI S
$\mathrm{Y}=$ Fall and Winter sessions, or First and Second subsessions of the Summer Session, e.g., ANT IOOYI Y

## Guide to Programs and Courses

## How to Read a Course Description



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## FACULTY of ARTS \& SCIENCE <br> U N I V ERSITY of T O R O N T O

## Programs and Courses

The next section contains detailed information about the programs of study and courses offered by the Faculty of Arts and Science, St. George campus. This, for reference, is an alphabetical listing of all programs of study, which includes the level and title of the program. For example,

| Level | Title | Page |
| :--- | :--- | :---: |
| SPE/MAJ/MIN | African Studies | 343 |

means that you can take a Specialist, Major or Minor program in African Studies. The program is sponsored by New College; details about program requirements and course descriptions are available beginning on page 343.

| Leve」 | Title | Page | Level | Title | Page |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SPE/MAJ/MIN | Aboriginal Studies | 48 | SPE | Computer Science: Foundations | 101 |
| SPE/MAJ | Actuarial Science | 52 |  | Option |  |
| SPE/MAJ/MIN | African Studies | 343 | SPE | Computer Science: Information | 101 |
| MAJ/MIN | American Studies | 54 |  | Systems Option |  |
| SPE/MAJ/MIN | Anthropology | 55 | SPE | Computer Science: Software | 101 |
| SPE/MAJ | Anthropology (Biological) | 55 |  | Engineering Option |  |
| MAJ | Anthropology (Linguistic \& Semiotic) | 55 | SPE | Computer Science: Comprehensive | 101 |
| SPE | Anthropology (Social \& Cultural) | 55 |  | Option |  |
| SPE | Applied Mathematics | 316 | SPE/MAJ | Criminology | 465 |
| SPE | Applied Physics | 361 | MAJ/MIN | Croatian \& Serbian Studies | 409 |
| SPE/MAJ | Archaeological Science | 64 | MAJ/MIN | Czech \& Slovak Studies | 409 |
| SPE | Archaeology | 64 | SPE | Developmental Biology | 259 |
| MAJ | Architectural Studies (Design) | 66 | MAJ | Dr. David Chu Program In Asia-Pacific | 83 |
| MAJ | Architectural Studies (History, Theory,Criticism) | 66 | MAJ/MIN | Studies <br> Diaspora \& Transnational Studies | 103 |
| SPE | Astronomy \& Physics | 84 | SPE/MAJ/MIN | Drama | 118 |
| MAJ/MIN | Astronomy and Astrophysics | 84 | SPE | Earth Systems: Physics \& the Environment | 150 |
| SPE | Behaviour | 265 | SPE/MAJ/MIN | East Asian Studies | 122 |
| SPE/MAJ | Biochemistry | 250 | SPE | Ecology | 265 |
| SPE/MAJ/MIN | Bioethics | 350 | MAJ | Ecology \& Evolutionary Biology | 265 |
| SPE | Biogeography | 183 | MAJ/MIN | Economic History | 131 |
| SPE | Bioinformatics \& Computational Biology | 250 | SPE | Economic History \& Economics | 131 |
| SPE | Biological Chemistry | 87 | SPE/MAJ/MIN | Economics | 131 |
| SPE/MAJ/MIN | Biology | 255 | SPE | Economics \& Geography | 131 |
| SPE | Biophysics | 361 | SPE | Economics \& Mathematics | 131 |
| MAJMIN | Book \& Media Studies | 400 | SPE | Economics \& Philosophy | 131 |
| SPE/MAJ/MIN | Botany | 255 | SPE | Economics \& Political Science | 131 |
| MIN | Buddhism, Psychology \& Mental Health | 343 | SPE | Economics \& Sociology | 131 |
| SPE/MAJ | Buddhist Studies | 389 | SPE | Economics \& Statistics | 131 |
| MIN | Business German | 200 | SPE | Economics (Commerce \& Finance) | 40 |
| SPE/MAJ/MIN | Canadian Studies | 441 | SPE | Economics (Quantitative Methods) | 131 |
| SPE/MAJ/MIN | Caribbean Studies | 343 | MIN | Education \& Society | 452 |
| SPE | Cell Biology | 259 | SPE/MAJ | Employment Relations | 465 |
| SPE/MAJ/MIN | Celtic Studies | 400 | SPE/MAJ/MIN | English | 141 |
| SPE | Chemical Physics | 87 | SPE | English \& Drama | 141 |
| SPE/MAJ/MIN | Chemistry | 87 | SPE | English \& Linguistics | 141 |
| SPE | Chemistry \& Geology | 87 | SPE | English \& Philosophy | 141 |
| SPE/MAJ/MIN | Christianity \& Culture | 400 | SPE | Environment \& Health | 150 |
| MIN | Christianity \& Culture: Christianity and Education | 400 | SPE/MAJ SPE/MAJ/MIN | Environment \& Resource Management Environment \& Science | 183 150 |
| MAJ | Christianity \& Culture: Religious Education | 400 | SPE/MAJ/MIN | Environment \& Society | 150 |
| SPE/MAJ/MIN | Cinema Studies | 225 | SPE | Environment \& Toxicology | 150 |
| MAJ/MIN | Classical Civilization | 94 | MIN | Environmental Anthropology | 150 |
| SPE/MAJ | Classics | 94 | MIN | Environmental Biology | 150 |
| SPE/MAJ | Cognitive Science | 441 | SPE/MIN | Environmental Chemistry | 150 |
| SPE | Cognitive Science \& Artificial Intelligence | 441 | MIN | Environmental Economics | 150 |
| SPE | Commerce \& Finance (B.Com.) | 40 | MAJ/MIN | Environmental Ethics | 150 |
| MAJ | Commerce (B.A.) | 40 | SPE/MAJ/MIN | Environmental Geosciences | 150 |
| SPE | Comparative Animal Physiology | 259 | SPE/MAJ/MIN | Environmental Policy \& Practice | 150 |
| SPE/MAJ | Computer Science | 101 | MAJ | Equity Studies | 343 |
| SPE | Computer Science \& Economics | 101 | MIN | Estonian Studies | 164 |
| SPE | Computer Science \& Mathematics | 101 | MAJ | Ethics, Society \& Law | 437 |
| SPE | Computer Science \& Physics | 101 | MAJ | European Studies | 163 |
| SPE | Computer Science \& Statistics | 101 | MIN | European Union Studies | 163 |
| SPE | Computer Science: Artificial | 101 | SPE | Evolutionary Biology | 265 |
|  | Intelligence Option |  | SPE | Financial Economics | 131 |
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Programs and Courses

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| MAJ/MIN | Finnish Studies | 164 | SPE | Mathematics \& Physics | 316 |
| SPE/MAJ/MIN | Forest Conservation | 169 | SPE/MAJ/MIN | Mediaeval Studies | 400 |
| SPE/MAJ/MIN | Forest Conservation Science | 169 | SPE | Molecular Genetics \& Microbiology | 284 |
| SPE | French \& German | 173 | SPE | Molecular Plant Biology | 259 |
| SPE | French \& Italian | 173 | SPE/MAJ | Music | 327 |
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| SPE | French \& Russian | 173 | SPE/MAJ | Music with Ensemble Option | 327 |
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| MIN | French Studies | 173 | SPE/MAJ | Peace \& Conflict Studies | 441 |
| MIN | French Translation | 173 | SPE | Pharmaceutical Chemistry | 290 |
| MIN | Geographic Information Systems | 183 | SPE/MAJ | Pharmacology | 292 |
| SPE/MAJ/MIN | Geography | 183 | SPE | Pharmacology \& Toxicology | 292 |
| SPE/MAJ/MIN | Geology | 195 | SPE/MAJ/MIN | Philosophy | 350 |
| SPE | Geology \& Physics | 195 | SPE | Philosophy \& Political Science | 350 |
| SPE | German \& Italian | 200 | SPE | Philosophy \& Religion | 350 |
| SPE | German \& Russian | 200 | SPE | Philosophy \& Sociology | 350 |
| SPE | German \& Spanish | 200 | SPE | Philosophy of Science | 350 |
| SPE/MAJ/MIN | German Studies | 200 | SPE/MAJ/MIN | Physical \& Environmental Geography | 183 |
| MAJ/MIN | Greek | 94 | SPE/MAJ/MIN | Physics | 361 |
| SPE/MAJ | Health Studies (B.A.) | 441 | SPE | Physics \& Philosophy | 361 |
| SPE/MAJ | Historical \& Cultural Geography | 183 | MAJ | Physics (General) | 361 |
| SPE/MAJ/MIN | History | 204 | SPE/MAJ/MIN | Physiology | 296 |
| MAJ | History \& Philosophy of Science and Technology | 221 | $\begin{aligned} & \text { SPE } \\ & \text { SPE } \end{aligned}$ | Planetary Science Polish \& French | $\begin{aligned} & 370 \\ & 409 \end{aligned}$ |
| SPE | History \& Political Science | 204 | SPE | Polish \& German | 409 |
| SPE | Human Biology: Genes, Genetics \& | 273 | SPE | Polish \& Russian | 409 |
|  | Biotechnology |  | MAJ/MIN | Polish Language \& Literature | 409 |
| SPE | Human Biology: Global Health | 273 | MAJ/MIN | Polish Studies | 409 |
| SPE | Human Biology: Health \& Disease | 273 | SPE/MAJ/MIN | Political Science | 371 |
| MAJ | Human Biology | 273 | SPE | Political Science \& Sociology | 371 |
| SPE | Human-Computer Interaction | 101 | SPE/MAJ/MIN | Portuguese | 386 |
| MAJ/MIN | Hungarian Studies | 164 | SPE | Portuguese \& Spanish | 386 |
| SPE | Immunology | 279 | MAJ | Prehistoric Archaeology | 64 |
| MAJ | International Development Studies | 150 | SPE/MAJ/MIN | Psychology | 300 |
| SPE/MAJ | International Relations | 437 | SPE | Psychology (Research Specialist) | 300 |
| SPE | International Relations Program/Peace | 437 | SPE/MAJ/MIN | Religion | 389 |
|  | \& Conflict Studies Program |  | SPE | Religion: Christian Origins | 389 |
| SPE/MAJ/MIN | Italian | 233 | SPE/MAJ/MIN | Renaissance Studies | 452 |
| SPE | Italian \& Portuguese | 233 | MIN | Russian Language | 409 |
| SPE | Italian \& Russian | 233 | SPE/MAJ/MIN | Russian Language \& Literature | 409 |
| SPE | Italian \& Spanish | 233 | MIN | Russian Literature in Translation | 409 |
| MIN | Italian Culture \& Communication | 233 | MAJ/MIN | Semiotics \& Communication Theory | 452 |
|  | Studies |  | MAJ/MIN | Sexual Diversity Studies | 441 |
| MAJ | Italian Second Language Learning | 233 | SPE | Slavic Languages | 409 |
| SPE/MAJ/MIN | Jewish Studies | 241 | SPE | Slavic Languages \& Literatures | 409 |
| MAJ/MIN | Latin | 94 | SPE/MAJ/MIN | Sociology | 419 |
| MAJ | Latin American Studies | 245 | SPE | Sociology \& Urban Studies | 419 |
| MIN | Life \& Environmental Physics | 361 | SPE/MAJ/MIN | South Asian Studies | 343 |
| SPE/MAJ/MIN | Linguistics | 309 | SPE/MAJ/MIN | Spanish | 428 |
| SPE | Linguistics \& Computing | 309 | SPE/MAJ/MIN | Statistics | 433 |
| SPE | Linguistics \& French | 309 | SPE/MAJ | Toxicology | 292 |
| SPE | Linguistics \& Italian | 309 | SPE | Ukrainian \& French | 409 |
| SPE | Linguistics \& Philosophy | 309 | SPE | Ukrainian \& German | 409 |
| SPE | Linguistics \& Spanish | 309 | SPE/MAJ/MIN | Ukrainian Language \& Literature | 409 |
| SPE | Linguistics and German | 200 | SPE/MAJ/MIN | Urban Studies | 225 |
| MAJ/MIN | Literary Studies | 452 | SPE/MAJ | Urban, Economic \& Social Geography | 183 |
| SPE | Literary Studies \& Philosophy | 452 | SPE/MAJ/MIN | Visual Studies | 70 |
| SPE | Materials Science | 314 | SPE/MAJ/MIN | Women and Gender Studies | 461 |
| SPE/MAJ/MIN | Mathematics | 316 | MIN | Writing \& Rhetoric | 225 |
| SPE | Mathematics \& Its Applications | 316 | MIN | Al \& Malke Green Program in Yiddish | 200 |
| SPE | Mathematics \& Philosophy | 316 | SPE/MAJ/MIN | Zoology | 255 |

## Commerce

## Collaborative Program of the Faculty of Arts and Science and the Rotman School of Management

Faculty from the Rotman School of Management who teach in the Commerce Programs are listed below. For the list of faculty from the other major participant in the Commerce Program, the Department of Economics, see page I3I.

## Faculty

## Professor Emeritus

J.H.G. Crispo, B Com, Ph D

Professor and Director of the Programs
W. Rotenberg, MBA, Ph D

Professors
T.L. Amburgey, BS, MA, Ph D
J.H.Amernic, B Sc, MBA, FCA
O. Berman, BA, Ph D
L. Booth, MA, MBA, DBA
D.J.S. Brean, MBA, M Sc, Ph D
J. Callen, BA, MBA, Ph D

J-C Duan, BS, MBA, Ph D
I. Horstmann, BA, Ph D
D. Krass, BA, MSE, Ph D
A.A. Mitchell, BA, Ph D
D.A. Ondrack, MBA, Ph D
G. Richardson, BA, MBA, Ph D
B. Silverman, AB, SM, MA, Ph D
W. Smieliauskas, MS, Ph D
A. Verma, B Tech, MBA, Ph D

Glen Whyte, LLB, MPhil, MA, MBA, Ph D

## Associate Professors

K. Corts, BA, Ph D
D.W. Greeno, MBA, Ph D (W)
S. Hawkins, BA, MS, Ph D
R. Kan, MBA, Ph D
M. Rindisbacher, BA, M Sc, Ph D
M. Rotundo, BA, MIR, Ph D
M. Shi, BS, MSIA, MBA, Ph D
K. Wang, MA, Ph D
P. Zhang, B Sc, MA, M Acc, Ph D

## Assistant Professors

O. Baron, B Sc, MBA, PhD
J. Berdahl, MA, Ph D
A. Ching, B. Econ, MA, Ph D
S. Côté, B Sc, MA, PH D
K.B. Dahlin, M Sc, Ph D
S. Davydenko, M.SC, MA, Ph D
F. Derrien, Ph D
C. Doidge, B Com MSC, Ph D
A. Goldfarb, MA, Ph D
L. Han, BA, MA, Ph D
M. Lederman, BA, Ph D
G. Leonardelli, BA, MA, Ph D
H. Lu, BE, MS, MBA, Ph D
S.A. McCracken, B Com, Ph D, CA
J. Oesch, B Sc, M Ed, MBA, M Sc, Ph D
L. Pomorski, BA, MA, Ph D
D. Segal, BA, Ph D
T. Simcoe, AB, MA
A. Wojnicki, B Com, MBA, DBA
C. Zhong, BA, MA, Ph D

## Senior Lecturers

J. Kitunen, BBM, CA
D.L. Losell, MBA, CA
C. Reed, MA, CMA (University of Toronto Mississauga)
M.S. Schneider, LLB, MBA, CA (University of Toronto

Mississauga)

## Lecturers

E. Zuliani, B Com, CA

## Adjunct Professor

D. Dunne, B Com, Ph D
H. Honickman, B Com, CA

The $U$ of $T$ commerce program selects from among the best and brightest students and provides them with an education that is unparalleled in the country. The commerce program partners the internationally renowned business school, the Rotman School of Management, with Canada's top economics department. All of this in the context of Canada's foremost research university, located in the heart of the business community just minutes away from Bay Street and steps from Queen's Park.

The commerce programs combine economics and the various sub-disciplines of business and government management enabling students to develop analytical skills and gain a knowledge of institutions. This background is useful for solving problems and making decisions in business and government environments.

Commerce graduates frequently become economists, accountants, actuaries, financial analysts, marketing analysts, managers of firms and government, or proprietors of small businesses. Some commerce students elect to undertake postgraduate studies in the form of further university education: law schools and MBA programs have been particularly favoured destinations of recent graduates.

Associate Director: L. MacTavish, I05 St. George Street, Room III (416-978-3339)

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E-mail: commerce.info@utoronto.ca

## Commerce

## Bachelor of Commerce (B.Com.)

 Degree RequirementsTo qualify for a Bachelor of Commerce degree, a student must:
(a) Complete twenty full-course equivalents, including no more than six 100 -series courses;
(b) Complete the Commerce and Finance Program (see below);
(c) Complete the Faculty Distribution Requirement for B.Com. students (see below);
(d) Complete five full course equivalents from disciplines outside of Management (MGT), Economics (ECO), and Commerce (COM); (courses taken to fulfill (b) and (c) may be also counted towards meeting this requirement; see also III in Commerce and Finance Program below).
(e) Obtain standing (i.e., complete with a grade of $50 \%$ or more) in at least six 300 - or 400 -series courses, including at least one 400 -series course (no more than one $300+$ series transfer credit may be counted towards these six).
(f) Achieve a cumulative GPA of 1.85 or more by the time of graduation.

## Graduation

Students who expect to graduate at the end of a given session must use the Student Web Service or notify their College Registrars in writing to make their degree requests by the dates specified in the Calendar. Prospective graduands should receive the following documents from the University:
I. a Program of Study Assessment form (late April/late August) from the program sponsor;
2. a letter from the Office of Convocation providing details of the convocation ceremony (late March/mid-October);
3. a Statement of Results (or letter for non-registered students) from the Office of the Faculty Registrar confirming degree eligibility (early June/early September).

## Faculty Distribution Requirement for B.Com. Students

As part of the degree requirements for the B.Com., STUDENTS MUST COMPLETE ONE FULL COURSE EQUIVALENT IN EACH OF THE HUMANITIES, THE SOCIAL SCIENCES AND THE SCIENCES AREAS as defined below:
I. ONE full course equivalent must be from the Humanities (see Page 27).
2. ONE full course equivalent must be from the Social Sciences (MGT courses may be used to meet this requirement with the exception of MGT 120 HI , 121 HI and COM IIOHI, which have NO Distribution Requirement status; see Page 27).
3. ONE full course equivalent must be from the Sciences (see Page 27), with the following exceptions:
All I00-series courses in CSC, MAT, STA; STA 250 HI , $255 \mathrm{HI}, 257 \mathrm{HI}, 352 \mathrm{YI}$.
4. NOTE: transfer students from University of Toronto Mississauga or Scarborough must meet the St. George Distribution Requirement.

## Commerce Programs

## Notes

- Tuition fees for students enroling in the Commerce programs from 2001 onwards will be higher than for other Arts and Science programs.
- MAT $133 \mathrm{YI} /(123 \mathrm{HI}, 124 \mathrm{HI})$ are courses which satisfy the minimum Program requirements. Students who are likely to enrol in 200+ series MAT courses are advised to take MAT I37YI instead, noting that MAT I37YI is a theoretically oriented course for Specialists in Mathematics and mathematically based disciplines such as Actuarial Science.
- Enrolment in the Commerce and Finance Program is limited. The majority of spaces each year will be reserved for students admitted to first-year studies in Commerce. A limited number of places will be available for other Arts and Science students not admitted to first year Commerce; these students normally apply for admission in April of their first year.
o First Year Commerce:
These students will be guaranteed a space in the Program after first year provided they complete - upon first attempt - a minimum of four credits with a cumulative grade point average of at least 2.00 (about a C). In order to maintain the guarantee into the commerce program, students must attain a minimum grade in the three required courses:
ECO 100 YI with at least $67 \%$, MGT I20HI with at least $63 \%$, and MAT I 33 Y I with at least $50 \%$. Students must also complete COM IIOHI.
o All other students must meet the following admission requirements:
- Complete MGT I20HI with a mark of at least $63 \%$ and ECO 100 Y , with a mark of at least $67 \%$
- Complete one of MAT I $33 \mathrm{Y} I / I 35 \mathrm{Y} I / I 36 \mathrm{Y} / I 37 \mathrm{Y} I /(I 23 \mathrm{H}$, $124 \mathrm{H}) /(125 \mathrm{H}, \mathrm{I} 26 \mathrm{H})$, with a mark of at least $50 \%$
- Complete a minimum of 4.0 credits
- Obtain an average on first attempt in MGT I20HI, ECO IOOYI and MAT I33YI (or equivalent) of at least B-, whether the courses were taken at $U$ of $T$ or awarded as transfer credits
- Obtain a CGPA to be determined each year based on all courses taken for credit in the Faculty of Arts and Science
- Complete on-line applicant profile and pay application fee
- Commerce students are limited to a maximum of 6.0 credits in the Fall/Winter session


## Commerce and Finance (B.Com)

## Specialist program:

(14 to 15 full courses or their equivalent out of 20 courses, for a B.Com.)
First Year:
I. COM IIOHI; MGT I20HI;ECO IOOYI
2. MAT I $33 \mathrm{YI} /(I 23 \mathrm{HI}, I 24 \mathrm{HI}) / I 35 \mathrm{YI} / / 37 \mathrm{Y} I / I 57 \mathrm{Y} \mathrm{I}$
3. Students are encouraged to take one course towards the Distribution Requirement (above) in First Year
Higher Years:
I: Additional MGT Component (5.0 full courses or their equivalent)
I. MGT $220 \mathrm{HI}, 223 \mathrm{HI}, 337 \mathrm{YI}$
2. I. 0 course from: MGT $252 \mathrm{HI}, 262 \mathrm{HI}, 353 \mathrm{HI}, 363 \mathrm{HI}$, $37 \mathrm{IHI}, 374 \mathrm{HI}, 393 \mathrm{HI}$
3. I. 0400 -series MGT course
4. I. 0 additional $200+$ series MGT course

## Commerce

5. No more than 15 COM, MGT and ECO courses may be taken for degree credit. STA $250 \mathrm{HI}, 255 \mathrm{HI}, 257 \mathrm{HI}, 26 \mathrm{HI}$ count as ECO courses.
II: Additional Economics Component (5 full courses or their equivalent)
l. ECO $204 \mathrm{YI} / 206 \mathrm{Y} I$
6. ECO 209YI
7. ECO $220 \mathrm{YI} / 227 \mathrm{YI} / \mathrm{STA}(250 \mathrm{HI}, 255 \mathrm{HI}) /(257 \mathrm{HI}$, $261 \mathrm{HI})$
8. $2.0300+$ series ECO full course equivalents, no more than one of which may be a course in Economic History (see III.below).
III: Writing Component (2 full courses* or their equivalent) Two full course equivalents in English from the courses below:

## Writing Courses:

ANT 204YI; CLA (except 20IHI); ENG; ECO* 30IYI/ $302 \mathrm{HI} / 303 \mathrm{YI} / 307 \mathrm{HI} / 308 \mathrm{HI} / 309 \mathrm{HI} / 32 \mathrm{IY} / 342 \mathrm{YI} / 353 \mathrm{YI} / 354 \mathrm{HI} /$ $355 \mathrm{HI} / 423 \mathrm{HI} / 429 \mathrm{YI} / 435 \mathrm{HI}$; FAH; FCS; HIS; HPS; HUM I99Y; INI all "Cinema Studies" and Writing and Rhetoric" courses; LIN; NEW all "Equity Studies" and "Humanism" courses; PHL (except $245 \mathrm{HI}, 246 \mathrm{HI}, 247 \mathrm{HI}, 344 \mathrm{HI}, 345 \mathrm{HI}, 346 \mathrm{HI}$ ); POL (except 242YI); RLG; SMC (except language courses); SOC (except IOIY);TRN I90Y, 200YI; UNI all "Canadian Studies", "Peace and Conflict Studies" and "Sexual Diversity Studies" courses;VIC;WDW all "Criminology" courses;WGS;WRT 307HI.

* Note: Only I. 0300 or 400 -level ECO history course can count towards the Major in Economics.


## Economics (Commerce and Finance) (B.Com.)

This Program may only be taken conjointly with the Specialist Program in Commerce and Finance (above). Students must be accepted to and remain in the Commerce and Finance (B.Com.) Program in order to complete the Economics (B.Com.) Program.

## Note

Enrolment in this Program is limited to students with $70 \%$ in ECO 100 Y I and $(63 \%$ in MAT I33YI or $55 \%$ in MAT I37YI) and $63 \%$ in MGT 120 HI and a minimum cumulative GPA of 2.3.

## Specialist program:

(15.5 courses in a program of 20 full courses or their equivalent)
First Year:
COM IIOHI;ECO I00YI; MAT I33YI/I35YI/I37YI/I57YI; MGT I20HI
Higher Years:
I: Additional MGT Requirements ( 5.0 full courses or their equivalent):
I. MGT $220 \mathrm{HI}, 223 \mathrm{HI}, 337 \mathrm{YI}$
2. I. 0 course from MGT $252 \mathrm{HI}, 262 \mathrm{HI}, 353 \mathrm{HI}, 363 \mathrm{HI}$, $37 \mathrm{IHI}, 374 \mathrm{HI}, 393 \mathrm{HI}$
3. I. 0400 -series MGT course
4. I. 0 additional $200+$ series MGT course
5. No more than I5 COM, MGT and ECO courses may be taken for degree credit. STA $250 \mathrm{HI}, 255 \mathrm{HI}, 257 \mathrm{HI}, 26 \mathrm{HI}$ count as ECO courses.

II: Additional ECO Requirements ( 5.5 full courses or their equivalent):
I. ECO $206 \mathrm{YI}, 208 \mathrm{YI}, 227 \mathrm{YI} / \mathrm{STA}(257 \mathrm{HI}, 26 \mathrm{HI})$
2. ECO 327 Y
3. ECO $325 \mathrm{HI}, 326 \mathrm{HI}$ plus one-half additional ECO course at the $300+$ level
III: Writing Component (2 full courses or equivalent): I. I. 0 course in English from below; ANT 204Y I; CLA (except 20IHI); ENG; FAH; FCS; HIS; HPS; HUM I99Y; INI all "Cinema Studies" and "Writing and Rhetoric" courses; LIN; NEW all "Equity Studies" and "Humanism" courses; PHL (except $245 \mathrm{HI}, 246 \mathrm{HI}, 247 \mathrm{HI}, 344 \mathrm{HI}, 345 \mathrm{HI}, 346 \mathrm{HI}$ ); POL (except 242YI); RLG; SMC (except language courses); SOC (except IOIY);TRN 190Y, 200YI; UNI all "Canadian Studies" ,"Peace and Conflict Studies" and "Sexual Diversity Studies" courses;VIC;WDW all "Criminology" courses;WGS;WRT 307HI.
2. I. 0 Economic History course from: ECO $301 \mathrm{YI}, 302 \mathrm{HI}$, $303 \mathrm{YI}, 307 \mathrm{HI}, 308 \mathrm{HI}, 309 \mathrm{HI}, 32 \mathrm{YI}, 342 \mathrm{YI}, 353 \mathrm{YI}, 354 \mathrm{HI}$, $355 \mathrm{HI}, 423 \mathrm{HI}, 429 \mathrm{YI}, 435 \mathrm{HI}$

## Commerce (Arts program)

Students taking this program follow the degree requirements for the Honours Bachelor of Arts (see page 25).

## Major program:

(7.5 full courses or their equivalent)

First Year:
I. COM IIOHI,MGT I20HI
2. ECO I00YI
3. MAT I33YI/(I23HI, I24HI)/I35YI/I37YI/I39YI/I57YI

Higher Years:
I. ECO $220 \mathrm{YI} / 227 \mathrm{YI} / \mathrm{STA}(250 \mathrm{HI}, 255 \mathrm{HI}) /(257 \mathrm{HI}, 26 \mathrm{IHI})$
2. MGT $220 \mathrm{HI}, 223 \mathrm{HI}, 337 \mathrm{YI}, 252 \mathrm{HI}$
3. I. 0 courses from MGT330HI, $363 \mathrm{HI}, 37 \mathrm{IHI}, 374 \mathrm{HI}$, 393 HI , or any 400 -level MGT course

## Commerce Courses

For Distribution Requirement purposes (see page 27), all MGT courses (except COM IIOHI and MGT I2OHI, which have NO degree requirement status) are classified as SOCIAL SCIENCE courses.
(Economics course descriptions begin on Page I35).
Enrolment in all Management (MGT) courses above the 100 series level is exclusively restricted to students enrolled in a St. George Commerce Program. Enrolment in I00-series MGT courses is subject to space availability; students admitted to the Faculty who indicated an intention to enrol in the Commerce program are given preference. Contact Commerce Programs Office for enrolment information.

Y = Full Course; $\mathrm{H}=$ Half-Course. For information on calculating "Course Load" and on "Dropping Courses," see the "Guide to Choosing Courses \& Programs".

COMIIOHI Introduction to Commerce
Introduction to study of Economics and Management, and their sub-disciplines, that comprises Commerce. Enrolment in COM IIOHI is restricted to first year students admitted to the Commerce admission category. (A joint course offered by the Rotman School of Management and the Department of Economics.)

## Commerce

## MGTI20HI Financial Accounting I <br> 26L

Introduction to the theory and concepts of financial accounting. Students learn how to construct and interpret financial statements. Topics include an introductory understanding of accounting and the context within which accounting occurs. MGT 120 HI is a course aimed at students who wish to enrol in the Program in Commerce and Finance. Enrolment in MGT $\mathbf{I} 20 \mathrm{HI}$ is restricted. Priority is given to students entering the University with an expressed interest in studying Commerce. MGT I20HI does not count as a distribution requirement course

## MGT220HI Financial Accounting II 26L, 26T

Expands the analysis of financial accounting beyond MGTI20HI.
Topics include accounting's conceptual framework, analysis of a business and financial statements, accounting for assets, and valuation of bonds.

## Exclusion: MGT290H

## Prerequisite: At least a C in MGTI20HI

## MGT223HI Management Accounting I 26L, 26T

Covers conceptual and analytical foundations of cost accounting and uses of accounting by management. Cost concepts for product costing and decision making provide an understanding of the uses of accounting information by management. Costing and control concepts are analyzed to equip students with tools for establishing costing systems and to make decisions.
MGT223HI does not count as a distribution requirement course.
Exclusion: MGT291HI
Prerequisite: At least C in MGTI20HI

## MGT224HI Financial Accounting Theory and Policy I

Expands the analysis of financial accounting beyond MGT220HI. Technical topics include accounting for leases, financial instruments, revenue recognition, intangibles and contingencies. Emphasis on implication for valuation and analysis.

## Prerequisite: MGT 220HI

## MGT252HI Principles of Marketing

An introduction to the basic concepts of market definition, consumer behaviour, and the principal marketing functions: product line development, pricing, distribution, promotion, salesforce management, advertising, research, and planning. Exclusion: MGT352HI

## MGT262HI Individual and Group Behaviour 26L in Organizations

Theoretical ideas and practical applications concerning the behaviour of individuals and groups in organizations. We explore relevant problems confronting management: motivation, influence, communication, supervision, decision-making, work force diversity.

## Exclusion: MGT362HI, PSY 332HI,WDW260HI

MGT290HI Financial Accounting II 26L
Expands the analysis of financial accounting beyond MGTI20HI. Cases are used to develop critical thinking and communication skills. Topics include accounting's conceptual framework, analysis of a business and financial statements, accounting for assets, and valuation of bonds. (Offered only during the summer in Hong Kong.)
Prerequisite: At least a C in MGT 120 HI
Exclusion: MGT 220HI

MGT29IHI Management Accounting I 26L
Covers conceptual and analytical foundations of cost accounting and uses of accounting by management. Cost concepts for product costing and decision making provide an understanding of the uses of accounting information by management. Costing and control concepts are analyzed to equip students with tools for establishing costing systems and to make decisions.
(Offered only during the summer in Hong Kong.)
Prerequisite: At least a C in MGT I20HI
Exclusion: MGT 223 HI

## MGT295Y0/ Special Topics 26L

 296 YOThe areas of concentration depend on the instructor teaching the course. (Offered only during the summer through the Woodsworth Summer Abroad Program)

## Note

Commerce students admitted to the Faculty of Arts and Science in 2002 Summer or later MUST complete COM IIOHI prior to enrolling in any 300 or 400 -level MGT course.

## MGT32IHI Auditing

A study of the concepts and theory underlying audit practice. Students are introduced to the CICA Handbook recommendations and guidelines for assurance. Practical examples are used to help students develop skills in exercising professional judgement.
Prerequisite: MGT224HI
MGT322HI Financial Accounting Theory 26L and Policy II
Examines several current measurement and disclosure issues in financial reporting, within a "quality of earnings" framework. Topics include: financial instruments, measuring and reporting pensions, financial reporting of corporate income taxes, corporate reporting via the Internet, etc. The emphasis is on developing judgement.
Prerequisite: MGT224HI
MGT323HI Management Accounting II 26L Introduction to the different contexts in which costs need to be determined for goods sold internally, externally, domestically, and internationally. Other topics include appropriate cost structures for centralized, decentralized, and matrix forms of organizations and costs for long term capital projects. Cases are used to promote understanding of the theories.
Prerequisite: MGT223HI, ECO220YI/227YI/STA $(250 \mathrm{HI}$,
$255 \mathrm{HI}) /(257 \mathrm{HI}, 26 \mathrm{HI})$
MGT330HI Investments
Security analysis and portfolio management. Emphasis is placed
on an analysis of bonds and common stocks.
Co-requisite: MGT337Y।
Recommended Preparation: MGTI20HI
Exclusion: ACT 349HI
MGT337YI Business Finance 52L
Valuation models, cost of capital, capital budgeting, investment under uncertainty, the use of leverage, dividend policy, and the financial environment within which Canadian companies operate. The characteristics of various debt and equity instruments available in the Canadian capital market.
Exclusion:ACT349HI, ECO 358 HI , ECO $359 \mathrm{HI}, \mathrm{MGT} 33 \mathrm{IYI}$
Prerequisite: ECO200YI/204YI/206YI, ECO220YI/227YI/
STA $(250 \mathrm{HI}, 255 \mathrm{HI}) /(257 \mathrm{HI}, 26 \mathrm{HI}), \mathrm{MGTI} 20 \mathrm{HI}$

## Commerce

## MGT353HI Introduction to Marketing Management

An applications-oriented course intended to develop the analytic skills required of marketing managers. The course is designed to improve skills in analyzing marketing situations, identifying market opportunities, developing marketing strategies, making concise recommendations, and defending these recommendations.
Prerequisite: MGT252HI
Recommended Preparation: ECO220YI/227YI/STA(250HI, $255 \mathrm{HI}) /(257 \mathrm{HI}, 26 \mathrm{IHI})$

## MGT363HI Organization Theory and Design 26L

The course looks at how organizations function as collective social systems, trying to succeed in their environment. An extensive body of research and theory about organizations has developed. Discussion of the theories with a focus on practical applications about managing organizations. Topics include strategy, structure, environment, technology, culture, change and global management.

## MGT37IHI Introduction to Business 26L, I3T Information Systems

This course helps students use, develop, and manage computerbased systems. The first half covers the basic features of hardware, software, communications, and databases. The second half examines how users, businesses, the economy, and society are affected by the development of this technology. No previous background in computing is assumed.
Exclusion: CSC340HI
MGT374HI Operations Management 26L
Operations management is concerned with the facilities and their operation to deliver the goods and services of the organization. The course develops this theme and gives a theoretical framework for managing operations. Some of the major themes include aggregate planning, materials management, and inventory control. This course introduces students to modern quantitative and computing tools necessary for indepth operational analysis and planning.
Prerequisite: ECO220YI/227YI/STA(250HI, 255 HI$) /(257 \mathrm{HI}$, 26IHI)

## MGT393HI Legal Environment of Business I

An introduction for commerce students to the Canadian legal system focusing on business entities, the structure of the Canadian court system, the various elements of contract law and the law of negligence.
MGT394HI Legal Environment of Business II 26L This course builds on the legal principles developed in Legal I and canvasses other areas of law that impact on a business entity. Topics dealt with are the Sales of Goods Act and relevant consumer protection legislation, employment law, environmental law, the Personal Property Security Act and the rights of the secured creditor.
Prerequisite: MGT393HI

## MGT395YO Special Topics

The areas of concentration depend on the instructor teaching the course. (Offered only during the summer through the Woodsworth Summer Abroad Program)
MGT40IHI/ Independent Study Course TBA
402HI

Open when a faculty member is willing and able to supervise. Students must obtain the approval of the Director of

Commerce and the supervising faculty member before enrolling. Enrolment is restricted to St. George Commerce students. Prerequisite: Cumulative GPA of at least 2.70
MGT403YI/ Independent Study Course TBA 404YI
Open when a faculty member is willing and able to supervise.
Students must obtain the approval of the Director of
Commerce and the supervising faculty member before enrolling.
Enrolment is restricted to St. George Commerce students.
Consult the Commerce Programs Office.
Prerequisite: Cumulative GPA of at least 2.70
MGT4IOHI/ Special Topics in Management TBA
4IIHI/
412HI/
413HI/
414HI/
415HI/
416HI/
417HI/
418HI/
419HI
Topics and issues in Management. Content in any given year will depend on the instructor. Consult the Commerce website for course description and prerequisites. Enrolment is restricted to 4th year St. George Commerce students.

## MGT420HI Critical Thinking, Analysis and 39L Decision Making

This is a capstone case course stressing the pervasive competencies and critical thinking skills required from Commerce graduates, professional accountants and advisors. The course integrates the technical and practical knowledge obtained in previous courses by applying this knowledge to case type situations. Aimed at students seeking an accounting designation.
Prerequisite: Fourth-year St. George Commerce student
Recommended Preparation:MGT 32IH, MGT 322H, MGT 323H, MGT 337Y

MGT42IHI Advanced Auditing Topics 26L
The course focuses on the reasoning and evidence theory underlying audit decision making. Coverage includes professional judgement, statistical auditing, assurance engagements, and public sector auditing.
Prerequisite: MGT32IHI
MGT422HI Computer Auditing 26L
This course investigates strategies and procedures used to audit computerized accounting systems based upon their special control characteristics. Special attention is devoted to computerized statistical procedures.
Prerequisite: MGT32IHI, 37IHI
MGT423HI Canadian Income Taxation I 26L, I3T
This is the first of two courses in federal income tax law. It is designed to give the student a basic understanding of the Income Tax Act and its administration. This is achieved by applying the law to practical problems and case settings. Topics covered include: residence, employment income, property income, business income, capital gains, computation of taxable income and tax for individuals.
Prerequisite: MGT322HI/323HI/337YI
MGT426HI Advanced Accounting
The emphasis in this course is on accounting issues and practices relating to long-term investments, consolidations,

## Commerce

foreign transactions and foreign investments. International accounting issues are also introduced. Assigned material includes cases to ensure that the user impact of accounting choices is appreciated.
Prerequisite: MGT322HI

## MGT427HI Analysis of Banking Financial Institutions and Instruments <br> Covers financial analysis of firms in the financial services industries: accounting and disclosure rules for financial instruments. Gives an in-depth understanding of how financial reports provide fairly accurate information about the risks and performance of banks and other financial services firms. Prerequisite: MGT 337YI

## MGT428HI Management Control <br> 26L

Management control includes all the processes and systems, many accounting-based, by which key managers allegedly ensure that resources are acquired and used effectively and efficiently in the accomplishment of an organization's goals. The case method is used to provide an understanding of the issues and environment of management control.
Prerequisite: MGT323HI
MGT429HI Canadian Income Taxation II 26L, I3T This is the second of two courses in federal income tax law. It is designed to give the student an understanding of the more complex issues of Canadian Income Tax Law and tax planning. This is achieved through a combination of lectures and the application of the law to practical problems and case settings. Topics include computation of corporate taxes, integration, corporate reorganizations, surplus distributions, partnerships and trusts.
Prerequisite: MGT423HI

## MGT430HI Fixed Income Securities

The objective of this course is to describe important fixed income securities and markets. The course emphasizes traditional bond and term structure concepts crucial to understand the securities traded in these markets. Students are required to work in the Rotman Financial Research \& Trading Lab to solve the assigned problems using real time data.

## Prerequisite: MGT337Y/ACT349HI

MGT43IHI Advanced Corporate Finance 26L
Application and development of the ideas in MGT 337YI to corporate finance problems such as initial public offerings and project evaluation.
Prerequisite: MGT337YI/ACT349HI, ECO200YI/204YI/206YI

## MGT 432HI Risk Management for Financial Managers

Focus is identifying and managing the risks of a portfolio of financial assets. These risks include credit, liquidity, interest rate, currency, market and country risks. The course addresses the measurement problems attached to infrequent as well as continuous risks, current risk management techniques, and the management problems in implementing them.
Prerequisite: MGT337YI
MGT438HI Futures and Options Markets 26L
Analysis of derivative instruments such as futures contracts, put and call options and swaps. Emphasis is placed on the valuation of these instruments as a foundation for valuing complex securities.
Exclusion: ACT370HI
Prerequisite: MGT337YI, ECO200YI/204YI/206YI

MGT439HI International Finance 26L
International Financial markets, exchange rates, forward markets, interest rate parity. International dimensions of investment, including both portfolio and foreign direct investment. International dimensions of corporate finance, including valuation and the cost of capital of foreign investments. Prerequisite: MGT337YI/ACT349HI, ECO200YI/204YI/206YI

MGT452HI Advanced Marketing Management 26L
The emphasis in this course is on marketing decision making in a dynamic environment. Building on the concepts and skills developed in MGT353HI, the course focuses on the major decisions facing marketing managers in the attempt to harmonize the resources of the organization with the opportunities in the market.
Prerequisite: MGT353HI

## MGT453HI Marketing Research

26L
Marketing research is studied from the perspective of the marketing manager. The course focuses on the initiation, design, and interpretation of research as an aid to marketing decision making. Case studies and projects are used to provide students with some practical research experiences.
Prerequisite: MGT353HI, ECO220YI/227YI/STA(250HI,
$255 \mathrm{HI}) /(257 \mathrm{HI}, 26 \mathrm{IHI})$
MGT 455HI Consumer Behaviour 26L
Marketing begins and ends with the customer. Formulating a successful marketing strategy requires an accurate understanding of customers' needs, values, judgments, feelings and choices. Students will learn how to generate knowledge about customers, interpret consumer reactions to marketing stimuli, and develop skills in marketing alalysis and decision making.
Prerequisite: MGT 353HI
MGT460HI Human Resource Management 26L
Human resource management is studied from the perspective of the manager/practitioner. The course focuses on current theory and practices in the major functions of human resource management. Class exercises and projects are used to provide students with some practical HR experience.
Prerequisite: MGT $262 \mathrm{HI} / 363 \mathrm{HI} / \mathrm{WDW} 260 \mathrm{HI}$
MGT46IHI Managerial Negotiations 26L
Students learn to recognize, understand, analyze, and practice essential concepts in negotiations required for understanding more complex relations within and between organizations. The main objective is to learn how to analyze the critical factors of a negotiation situation and then to be able to prescribe a course of action.
Prerequisite: MGT 262H
MGT475HI Management Science 26L
Introduction to Management Science methods dealing with decision making situations. The goal of these methods, which are quantitative in nature, is to obtain an objective evaluation of available alternatives and select the 'best' one with respect to pre-defined criteria. Topics include: Decision Analysis, Linear Programming, Integer Programming, Network Methods and Waiting Line Models.
Prerequisite: One full MGT course at the 300- or 400-level
MGT 480HI Business in a Global Economy
6L
Application of the analytic framework of international
trade, foreign investment and exchange rate economics to management of business. Special topics include the industrial effects of trade liberalization, the role of the World Trade

## Commerce

Organization, foreign exchange risk management, competition policy and international taxation.
Prerequisite: I. 0 300+ MGT full course equivalent

## MGT48IHI Organization Strategies

Explores the issue of outsourcing, broadly defined: which activities should a firm do "in house" and which should it take outside? Using a combination of cases and economic analysis, it develops a framework for determining the "best" firm organization.
Prerequisite: ECO200YI/204YI/206YI, ECO220YI/227YI/ STA $(250 \mathrm{HI}, 255 \mathrm{HI}) /(257 \mathrm{HI}, 26 \mathrm{HI})$
MGT482HI Market Strategies
Applies game-theoretic reasoning to analyze business strategy problems, focusing specifically on pricing, advertising, product positioning, product introduction, and relationships with upstream and downstream firms.
Prerequisite: ECO200YI/204YI/206YI, ECO220YI/227YI/ STA $(250 \mathrm{HI}, 255 \mathrm{HI}),(257 \mathrm{HI}, 26 \mathrm{IHI})$

## MGT491HI Introduction to

26L International Business
Focuses on developing an understanding of the fundamentals of doing business in an international environment. Based on the application of management theory (trade theory, modes of entry, foreign direct investment, theory of the multinational) to the strategic management problems of organizing business in the international arena.
Prerequisite: one full MGT course at the 300 - or 400 -level

## MGT492HI Introduction to <br> 26L <br> Strategic Management

Focuses on industry analysis and different models of the firm. The key questions addressed are: "why do some firms succeed where others fail?" and "what strategy should a firm employ to reach its goals?"
Prerequisite: one full MGT course at the 300- or 400-level
MGT493HI Small Business Management 26L Skills needed to set up and run a small business. Development of a business plan. Securing financing. Finding and keeping customers. Operations management. Aspects of legal, financial and taxation concerns of smaller businesses.
Prerequisite: one full MGT course at the 300- or 400-level

## MGT494HI Technology Strategy

Teaches about technological evolution and how evolutionary stages impact firms' strategic choices. Important issues in technological evolution are technological discontinuities, standards wars, dominant designs and patenting. Important strategic decisions concern innovation management, product versus process focus and intellectual property strategies. Project oriented coursework based on patent and business data bases.
Prerequisite: One full MGT course at the 300- or 400 -level Recommended Preparation: MGT 252HI

## MGT499HI Integrated Management 26L, I3T

## Simulation

An experiential business simulation in which students form the executive committee of a fictitious company and compete in a virtual computer simulation. Students interact and work together as a team, guide a company to success and communicate with stakeholders by reporting to a board of directors composed of business executives.
Prerequisite: Fourth-year St. George commerce students with MGT337YI

## FirstYear Seminars: 199H $/$ YI Courses

First-Year Seminars: 199HI and I99YI Courses
Coordinator: Professor K.R. Bartlett, MA Ph D,Victoria College, (4I6-585-4590) and First-Year Seminar Office (4I6-978-0359)
Website: www.artsci.utoronto.ca/current/undergraduate
The 199 YI and 199 HI seminars are designed to provide entering undergraduates with the opportunity to work closely with an instructor in a class of no more than twenty-four students. Each Seminar focuses on specific disciplinary or interdisciplinary issues, questions or controversies of particular interest to the instructor, and introduces the students to the excitement of discovery inherent in academic work at the University of Toronto. In addition, students are encouraged to develop their ability to think analytically and to express ideas and logical arguments clearly and coherently, both orally and in writing.

These interactive seminars are not designed as introductory surveys to a discipline or program. Rather, they are intended to stimulate the students' curiosity and provide an opportunity to get to know a member of the professorial staff in a seminar environment during the first year of study. Thus, students are encouraged to experience material and methods that are outside the area in which they will eventually concentrate in order to benefit fully from the scope and diversity of the Faculty of Arts and Science. All I99YI and 199HI seminars are described within the First-Year Handbook that is distributed to every newly admitted first-year student.
NOTE: 198 HI may be used in circumstances where a student enrols in two 199 HI seminars.

All I99YI and 199 HI seminars have generic designators HUM (HUManities) or SCI (SClence) or SSC (Social SCience), or INX (Interdisciplinary), according to the disciplinary content of the seminar.
All I99YI and 199 HI courses count for degree credit in the same way as any other course. STUDENTS MAY ENROL IN ONLY ONE 199 Y I SEMINAR OR TWO 199 HI SEMINARS. These courses can under most circumstances fulfill breadth requirements. For details see the Calendar (under Distribution Requirements, page 27) and the First-Year Handbook.

## Research Opportunity Program: 299YI Courses

Coordinator: Professor K.R. Bartlett, MA Ph D,Victoria College (416-585-4590) and Research Opportunity Program Office (416-978-0359)

Web site: www.artsci.utoronto.ca/current/undergraduate
The Research Opportunity Program ("ROP") provides an opportunity for students in their second year (i.e., after completing at least four but not more than nine courses) to earn one 299 Y I course credit by participating in a faculty member's research project.

Descriptions of ROP projects are in the ROP 299YI Project Binders, which will be available in departmental and college
registrars' offices, the ROP Office (Room 1067, Sidney Smith Hall, IOO St. George Street), and at ASSU and APUS, after Reading Week.

Students wishing to apply for places in the ROP should submit ROP Application forms (available with the ROP Binders and on the Arts and Science Web Site listed above) to the ROP Office (Room 1067, Sidney Smith Hall, 100 St. George Street) by mid March at the latest. Students will be informed in early May whether or not they have been accepted. Successful applicants will be registered in their 299YI course by the Program office. The 299YI courses begin in September.

A student may accept only one 299 YI course. Each 299 Y course will bear the three-letter designator of the department or program sponsoring it, e.g., ANT 299YI, CSB 299Y1, etc. Not all departments or programs will necessarily participate in the ROP each year.

Students will be expected to keep a journal recording meetings, progress, and what was learned about the project in particular and the nature of research in general. Full details of 299 YI course requirements are in the ROP 299YI Project Binders. For further information contact the Coordinator.

## Summer Research Opportunities

A limited number of ROP 299 Y I courses are offered each summer. Applications for summer 299 YI s are due in mid March, the same time as fall/winter 299 Y Is.

## Independent Experiential Study Program: 398H0/399Y0 Courses

Coordinator: Professor K.R. Bartlett, MA Ph D,Victoria College (416-585-4590) and Program Office (416-978-0359)
A limited number of $398 \mathrm{H} 0 / 399 \mathrm{YO}$ courses are available each year. Faculty supervisors propose the projects and choose the students who apply for the projects as they now do for the 299 Y Is. They also sign a contract with the successful candidates as with the 299 Y projects.

Students must normally have completed a minimum of eight FCEs and a maximum of 14.0 FCEs of their studies by the time they begin a $398 \mathrm{H} 0 / 399 \mathrm{Y} 0$ project. The $398 \mathrm{H} 0 / 399 \mathrm{Y} 0$ would be eligible to count towards program completion if the program sponsor (Chair or Director) so chooses. The $398 \mathrm{H} 0 / 399 \mathrm{YO}$ would normally have a program-specific designator, such as ANT, CLA, CSB, VIC, etc.
The projects normally run within the May-August period, when both Faculty and students would be able to make the time commitments necessary. Regular tuition fees apply. The practical, experiential component can take the form of research/ learning under the supervision of a faculty member in archives, laboratories, libraries, or in a field camp, etc. - but not in a classroom at another university (that is covered by the Faculty's exchange programs).
Details of individual $398 \mathrm{H} 0 / 399 \mathrm{Y} 0$ projects will be available in the Program office after March Ist each year.

| Faculty |  | ABS23IHI | Elementary Inuktitut |
| :---: | :---: | :---: | :---: |
|  |  | ABS250HI | Indigenous Environmental Knowledge |
| Assistant Professor |  | ABS302HI | Aboriginal People in the Mass Media |
| D. McGregor |  | ABS3IOYI | Ojibwa Language II |
| Cynthia Wesley-Esquimaux |  | ABS323YI | Intermediate Iroquoian Language |
|  |  | ABS320YI/ | Aboriginal Visual Expression:Technical and |
| Senior Lecturer |  | 32 IH | Theoretical Aspects |
| A. Mck |  | ABS330YI/ | Aboriginal Music: Technical and Theoretical |
| The Aboriginal Studies Program focuses on the languages, cultures, histories, arts, creativity and well-being of Indigenous |  | 331 HI | Aspects |
|  |  | ABS34IHI | Indigenous Theatre Aboriginal Health Systems |
| Peoples and on their knowledges within Canada and worldwide. It is an inter-disciplinary program which is sponsored by |  | ABS35IYI | Aboriginal Legends and Teac |
|  |  | ABS352HI | The Indian Act |
| University College. Students are encouraged to seek counselling and information about this program from Ruby Eisen (ruby. eisen@utoronto.ca). |  | ABS353HI | Aboriginal Perspectives in Canadian Politics and Law I |
|  |  | ABS354HI | Aboriginal Perspectives in Canadian Politics and Law 2 |
| Aboriginal Studies Programs |  | ABS402HI | Traditional Indigenous Ecological Knowledge |
| Aboriginal Studies (Arts program) |  | ABS 403 HI | Aboriginal People in Urban Areas |
|  |  | ABS 404 HI | Politics of Aboriginal Nursing |
| Specialist program <br> (IO full courses or their equivalents, including at least one 400series course) |  | ABS405Y | Indigenous Thought and Expression: Creative Non-fiction |
|  |  | ABS460Y | Methodology in Aboriginal Studies |
|  |  | ABS495YI/ | Independent Research |
| I. ABS 201 YI |  | 496HI/ |  |
| 2. ABS $2 \mathrm{I} 0 \mathrm{Y} / 1 / 220 \mathrm{YI} / 230 \mathrm{HI}$ and 23 IHI |  | 497HI |  |
| 3. ABS 300YI and ABS 30IYI |  | 498 Y |  |
| 4. ABS 460YI |  | ANT3I5HI | Arctic Archaeology |
| 5. Four additional full-course equivalents from Group $A$ below (note: some of these courses have prerequisites) |  | ANT365YI | Native America and the State |
|  |  | ANT453HI | Sub-Arctic Issues |
| 6. One additional full-course equivalents from Group A or one full-course equivalent from Group B below (note: some of these courses have prerequisites) |  | ENG254YI | Indigenous Literatures of North America |
|  |  | ENG355HI | Indigenous Women's Literature |
|  |  | HIS369YI | The Aboriginal Peoples of the Great Lakes |
| Major program <br> (7 full courses or their equivalent, including at least two 300+level courses) |  | HIS472HI | Topics in Canadian Aboriginal/Non-Aboriginal Relations |
|  |  | HIS493HI | Cultural Encounters in Early Canada |
|  |  | JAG32IHI | Aboriginal People and Environmental Issues in |
| I. ABS 20IYI |  |  | Canada |
| 2. ABS 21 | $1 / 220 \mathrm{YI} / 230 \mathrm{HI}$ and 23 IHI | JFP450HI | First Nations Issues in Health and Healing |
| 3. ABS 30 | and ABS 30IYI |  | (offered by the Faculty of Pharmacy) |
| 4. Two additional full-course equivalents from ABS, JFP, or JAG designators (note: some of these courses have prerequisites) |  | LIN458HI | Revitalizing Languages |
|  |  | RLG20IYI | Aboriginal Religion |
|  |  | UNI3I7YI/ | Politics of Aboriginal Self-Government |
| One additional full-course equivalent from Group A or one full-course equivalent from Group B below (note: some of these courses have prerequisites) |  | 317 HI |  |
|  |  | Group B: <br> ANT200YI | Introduction to Prehistoric Archaeology |
| Minor program <br> (4 full courses or their equivalent, including at least one fullcourse equivalent at the $300+$-level) |  | ANT204YI | Social and Cultural Anthropology |
|  |  | ANT3I9YI | Archaeology of North America |
|  |  | ANT3IIYI | Archaeological Fieldwork |
| I. ABS 201 |  | ANT348YI | Anthropology of Health |
| 2. ABS $300 \mathrm{Y} / 1301 \mathrm{Y}$ I |  | ANT367Y | Indigenous Spirituality |
| 3. One additional full-course equivalent ABS, JFP, or JAG (note: some of these courses have prerequisites) |  | ANT4IOHI | Hunter-Gatherers Past and Present |
|  |  | ANT454HI | The Anthropology of Music |
| 4. One additional full-course equivalent from Group A below (note: some of these courses have prerequisites) |  | DRM268HI | Canadian Theatre History |
|  |  | ENV236YI | Human Interactions with the Environment |
|  |  | FOR200HI | Conservation of Canada's Forests |
|  |  | GGR240YI | Historical Geography of the Americas |
| Group A: |  | HISIO6YI | Natives, Settlers, and Conquistadors: |
| ABS205Y | Aboriginal Spirituality |  | Colonizing the Americas, 1492-1776 |
| ABS2IOYI | Introduction to the Ojibwa Language | HIS358HI | How the West was Colonized |
| ABS220YI | Introduction to an Iroquoian Language | HIS384HI | Colonial Canada:The East |
| ABS230HI | Introduction to Inuktitut |  |  |

HIS402Y I
HIS468HI
INI327YI
1 NI 333 HI
JAL253HI
JAL254HI
JIE222YI
NEW224YI
NEW240YI
NEW324YI
NEW369YI
POL304YI
POL340YI
SOC220YI

Indigenous Colonial Cultures in the Spanish and Portuguese Americas
Atlantic Canada
Race and Representation
Ecological Worldviews
Language and Society
Sociolinguistics
The Study of Environment
Caribbean Thought I
Introduction to Equity Studies
Caribbean Thought II
Studies in Post-Colonialism
Ethnicity and Politics in Canada
SOC220YI Social Inequality in Canada

## Aboriginal Studies Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), ABS
courses are classified in different categories; check individual course descriptions.

## ABS20IYI Introduction to Aboriginal 52L/26T Studies

An introduction to Canadian Aboriginal studies and Aboriginal world views, including language, culture, history, politics, economics, sociology, and science. A focus on critical thinking, the introduction of new perspectives, and community context. This is a Social Science or Humanities course
ABS205Y I Aboriginal Spirituality
52L
An exploration of spiritual practices and beliefs of Indigenous peoples with emphasis on Canada's First Nations. Spirituality through an historic lens, highlighting rituals such as Ghost Dances, Midewiwin Lodge, and Wabung, and contemporary spiritual practices, including evolving belief systems, ritual and spiritual practice in today's world, and the balance of spirituality and spiritual practice with modernity.
Recommended preparation:ABS20IYI
This is a Humanities course
ABS2IOYI Introduction to the Ojibwa
Language
An introduction to the Ojibwa language, including the syllabic
writing system.
This is a Humanities course

## ABS220YI Introduction to an Iroquoian Language

An introduction to one of the languages of the Iroquoian
language family.
This is a Humanities course
ABS230HI Introduction to Inukitut 26L
An introduction to one dialect of Inuktitut, the language of the Inuit, including aspects of other dialects and the syllabic writing system.
This is a Humanities course
ABS23IHI Elementary Inuktitut
This course builds on the introduction to Inuktitut from ABS230H. Emphasis will be placed on developing grammatical complexity and vocabulary in students' oral skills, as well as dialect and cultural awareness.
Prerequisite: ABS230HI
This is a Humanities course

## ABS250HI Indigenous Environmental <br> 26S

 EducationAn exploration of traditional environmental education and its relevance in contemporary Aboriginal society, with a focus on the process of environmental education as well as on theory and conceptual understanding.
Prerequisite: ABS20IYI
This is a Social Science course
ABS300YI Worldviews, Indigenous Knowledges, 52L and Oral Tradition
A study of the languages and culture of Aboriginal peoples through exploration of oral histories, from creation stories until present times, including the role of oral history and methods for studying oral history through accounts told by elders.
Prerequisite: ABS2OIYI
This is a Social Science or Humanities course
ABS30IYI Native Language and Culture 52L
Examination of the historical interplay of Aboriginal languages and cultures in Canada. Particular focus is on the language and culture of a First Nation in Ontario.
Exclusion:ABS200YI
Prerequisite: ABS20IYI
This is a Social Science or Humanities course

## ABS 302HI Aboriginal Representation in the 26L Mass Media and Society

A survey of historical and contemporary representations of Aboriginal people in the mass media. Introduction to basic techniques for evaluating, analyzing, and understanding the construction of 'Nativeness' as it is communicated through film, television, and other media. Examination of racial stereotypes and the role of mass communication in perpetuating and challenging stereotypes, cultural appropriation, Aboriginal media production, impact of media portrayal of Aboriginal peoples. Prerequisite:ABS20IYI
This is a Social Science or Humanities course

## ABS3IOYI Ojibwa Language II

78L
Further study of the Ojibwa language with emphasis on
speaking and writing.
Prerequisite: ABS2IOYI
This is a Humanities course

| ABS320YI/ | Aboriginal Visual <br> ABS32IHI |
| :--- | :--- |
| Expression: Technical <br> and Theoretical Aspects |  |

An introduction to expressive aboriginal visual art from a regional Anishnaabe perspective, including beading, leather work, quillwork, birchbark baskets, with a concentration on technical, theoretical, historical, esthetic and cultural aspects and contemporary practice.
Prerequisite: ABS2OIYI or permission of the instructor This is a Humanities course

## JAG32IHI Aboriginal People \& Environmental Issues in Canada

This course explores Aboriginal views of environment and resource management from pre-European contact times through to the present from an Aboriginal perspective. Emphasis will be placed on the emerging role of Aboriginal people in environmental and resource management in Canada. Topics to be covered include: history of Aboriginal/non-Aboriginal relations, Aboriginal world view and philosophy, Aboriginal environmental ethics and principles, and current environmental

## Aboriginal Studies

issues confronting Aboriginal people. (Offered by Aboriginal Studies and the Geography Department)
Prerequisite:Two credits in Geography or Aboriginal Studies This is a Social Science course
ABS323YI Intermediate Iroquoian Language 78L Further study of an Iroquoian language.
Prerequisite: ABS 220YI
This is a Humanities course

## ABS330YI/ Aboriginal Music:Technical 52L/26L 33 IHI and Theoretical Aspects

Contemporary and historical musical performance practices of Aboriginal people of North and South America.
Prerequisite: ABS20IYI
This is a Humanities course

## ABS34IHI North American Indigenous Theatre

An introduction to the evolution of Indigenous theatre in North America, examining traditional oratory, ceremony, community responsibility, and social construct and their impact on current Indigenous theatre.
Prerequisite: ABS300YI/30IYI/33IHI/DRMI00Y
This is a Humanities course

## ABS350YI Aboriginal Health Systems

An overview of Aboriginal health systems, internationally, nationally, provincially and locally, with a focus on Ontario. Discussion of health models and strategies, policy, legislation, jurisdictional issues, Aboriginal health initiatives
Prerequisite: ABS 20IYI or UNI 200YI
This is a Social Science course

## ABS35IYI Aboriginal Legends \& Teaching <br> (formerly ABS35IHI)

An introduction to laws of Aboriginal societies, focusing on the Nishnabe, as seen through legends and teachings.
Prerequisite: ABS20|YI
Exclusion: ABS35 IHI
This is a Social Science or Humanities course
ABS352HI The Indian Act
26L
The history of the Indian Act from its creation to the present. Prerequisite: ABS20IYI
This is a Social Science or Humanities course

## ABS353HI <br> Aboriginal Perspectives in Canadian Politics and Law I

A study of the development of Aboriginal/Western relations from a legal and political standpoint and the evolution of Aboriginal issues and Native rights since contact. Aboriginal perspectives, customary law, restorative justice initiatives and self-government, effects of Canadian law on Indigenous beliefs and life ways, political and economic development potential.
Prerequisite: ABS20IYI
Recommended preparation: a course in Canadian history or politics
This is a Social Science or Humanities course

## ABS354HI Aboriginal Perspectives in

Canadian Politics and Law 2
A continuation of ABS 353 HI .
Prerequisite: ABS353HI
This is a Social Science or Humanities course

## ABS398HI/ Independent Experiential Study Project

 399YIAn instructor-supervised group project in an off-campus setting. See page 47 for details.

ABS402HI Traditional Indigenous 39L Ecological Knowledge
An overview of the relationships between Indigenous peoples and their environments, including an exploration of cultural, historical, and contemporary aspects of Indigenous environmental philosophies; the nature, control and transmission of Traditional Ecological Knowledge (TEK), and historical uses of TEK in managing the environment.
Prerequisite:ABS20IYI plus one additional ABS designator course
This is a Social Science or Humanities course
ABS 403HI Aboriginal People in Urban Areas 26L
An examination of Aboriginal peoples' experiences in urban centres, including an examination of increasing Aboriginal migration to Canadian and American cities, government policy affecting off-reserve Indians, and urban Indians' concerns and goals.
Prerequisite: $\mathrm{ABS2O} \mathrm{Y}$ I plus two additional full-course equivalents in $A B S$
This is a Social Science or Humanities course
ABS404HI Politics of Aboriginal Nursing 26L An examination of the impacts of policies and practices on the health of Aboriginal people in Canada which honours Native world view and traditions and values cultural safety. Includes historical and social determinants of health, historical events, policies and social realities and their consequences.
Prerequisite: Two full ABS courses plus permission of the instructor.
This is a Social Science course

## ABS405YI Indigenous Thought \& 52S Expression: Creative Non-fiction

An investigation of (Anishnaabe, Iroquoian, Athapaskan, Salish), examined through the study of research and writing of creative-nonfiction.
Prerequisite: $\mathrm{ABS2O} \mathrm{Y}$ I plus one additional ABS designator course and permission of instructor
This is a Humanities course

## JFP450HI First Nations Issues in Health and Healing

An examination of issues about the health of Aboriginal people in Canada, providing an understanding of present day health issues from the perspective of their historical and political context and effects of health care policy. (Offered by the Faculty of Pharmacy)
This is a Social Science or Humanities course
ABS460Y Methodology in Aboriginal Studies 78L
Basic methods in research in Aboriginal Studies, including oral tradition and community-based research, as well as discussion of ethics, protocols, priorities, and comparative Indigenous methodologies.
Prerequisite: $A B S 20$ IYI plus two full course equivalent $A B S$ courses or permission of the instructor.
This is a Social Science or Humanities course
ABS495YI/ Independent Research TBA
496HI/
497 HI
498YI
Supervised independent research on a topic agreed on by the student and the supervisor before enrolment in the course.
Available only when someone is willing and able to supervise.
Prerequisite: ABS20IYI plus one additional ABS designator fullcourse equivalent
This is a Social Science or Humanities course

The Academic Bridging Program is for mature students who are at least 20 years of age and who have been away from formal education for some time (usually at least two years). The courses are designed to bridge the gap between a student's prior secondary education and the requirements of first year university courses. They feature study skills, essay writing skills, library research skills and the methodology of the specific academic discipline involved. Students are admitted by Woodsworth College to one of three Academic Bridging courses: ENG I85Y (Introduction to the Study of Literature), JWH IOOY (Canadian History), and JWU I00Y (Contemporary Canada).

Enquiries: Millie Rotman Shime Academic Bridging Program, Woodsworth College (416-978-7487)

## Academic Bridging Program Courses

See page 33 for Key to Course Descriptions.
I. For Distribution Requirement purposes, see classification listed after each course.
2. Only students admitted to the Academic Bridging Program may enrol in these courses.

ENGI85YI Introduction to the Study of 78L

## Literature

A writing intensive course that introduces essential rhetorical and critical skills, focusing on how to recognize major literary forms; how to read critically, comprehend more fully, analyze outstanding literary works of drama, poetry and fiction; how to write more clearly and effectively, and how to use the library to do research.
This is a Humanities course
JWHIOOYI Canadian History
78L
This course is a survey of Canada's political, social, and economic history from European settlement to the present, featuring Canada's native peoples, Anglophone-Francophone issues, Canada's relations with Britain and the United States, and the growth of national institutions. Other themes include regionalism, immigration and multiculturalism.
This is a Humanities course
JWUIOOYI Contemporary Canada 78L
This interdisciplinary course provides an introduction to contemporary Canadian society. The course includes the study of geography, politics, literature and culture through a historical framework of the twentieth century. It also emphasizes particular themes including aboriginal issues, regionalism,
French-English conflict, gender/women's issues and immigration/ multiculturalism.
This is a Humanities or a Social Science course.

## Given by Members of the Department of Statistics

## Faculty

Professor and Chair of the Department
K. Knight, M Sc, Ph D

## Professors

S. Broverman, M Sc, Ph D, ASA
X.S. Lin, M Sc, Ph D, ASA

## Assistant Professor

A. Badescu, BSc, MSc, Ph D
S. Jaimungal, BASc, MSc, PhD

Actuarial Science is based upon the application of mathematical techniques to reduce the impact of such hazards as loss of income through death, disability, or retirement, or loss of property through fire, accident, or theft. Actuaries are the chief architects of life, health, and property insurance plans, and pension plans, and bear the major responsibility for their financial soundness. By using concepts from the areas of probabilities and finance, actuaries model, forecast and value the costs of benefits that will be provided to the participants in such plans. Methods developed for modeling insurance risk can also be applied to modeling investment risk, and actuaries apply their expertise to the valuation of sophisticated investment vehicles such as options on equities, bonds and other investment derivatives.

ACT 240 HI , though somewhat technical, is a course of interest to a wide audience, since almost every student will from time to time be either a saver or a borrower, and will be covered by insurance and pension plans.. Other actuarial courses deal with more specialized topics, and are generally taken by students with a more serious interest in the field or who want to pursue a career as an actuary.

Professional accreditation as an actuary is obtained via the Canadian Institute of Actuaries by passing a series of examinations set by the Society of Actuaries or the Casualty Actuarial Society. Some professional requirements can be satisfied through courses in the actuarial program. For more information about actuarial studies and careers, contact Professor Broverman or Professor Lin.

Enquiries: IOO St. George Street, Sidney Smith Hall, Room 6018 (416-978-3452)

Associate Chair, Undergraduate Studies: Professor D. Brenner; e-mail: brenner@utstat.utoronto.ca

## Actuarial Science Programs

Enrolment in these programs requires completion of four courses including MAT I37YI(55\%)/I57YI and ECOIOOYI(70\%).

## Actuarial Science (Science program)

Consult Department of Statistics.
NOTE: it is the student's responsibility to meet any prerequisites for courses offered by other departments.

## Specialist program

( 13 courses or their equivalent, including at least four 300+series courses, one of which must be at the 400 -level)
This program is designed to prepare a student for professional work as an actuary, and more generally in the financial risk management industry.
First Year:
I. MGT 120 HI
2. ECO $100 Y \mathrm{Y}(70 \%)$
3. MAT I37Y|(55\%)/I57YI
4. MAT $223 \mathrm{HI} / 240 \mathrm{HI}$ (should be taken in first year)

Second Year:
I. ACT $240 \mathrm{HI}, 245 \mathrm{HI}, 247 \mathrm{HI}$
2. MAT $237 \mathrm{Y} / 257 \mathrm{Y} \mathrm{I}$
3. ECO 206YI
4. STA $(257 \mathrm{HI}, 26 \mathrm{IHI})$

Higher Years:
I. $\mathrm{ACT} 348 \mathrm{HI}, 349 \mathrm{HI}, 370 \mathrm{HI}, 45 \mathrm{IHI}, 455 \mathrm{HI}, 460 \mathrm{HI}, 466 \mathrm{HI}$
2. One of: ACT $470 \mathrm{HI}, 47 \mathrm{IHI}, 472 \mathrm{HI}$
3. STA $302 \mathrm{HI}, 347 \mathrm{HI}, 457 \mathrm{HI}$

NOTE:
In order to enroll in any 300- or 400 -level ACT course, the minimum grade of $C$ must be obtained in each of ACT240HI, ACT245HI and ACT247HI. These prerequisites will be strictly enforced.
4. ECO 208YI (strongly recommended); STA 352YI; MAT $244 \mathrm{HI}, 246 \mathrm{HI}$ are recommended
5. Students in the Actuarial Science Specialist program who have successfully completed ACT 348HI may be eligible to enrol in the following MGT courses (provided the appropriate prerequisites and co-requisites are met): MGT $430 \mathrm{HI}, 43 \mathrm{IHI}, 439 \mathrm{HI}$
6. CSC 108 HI recommended

## Major program:

(8-8.5 courses or their equivalent, including at least two fullcourse equivalents at the $300+$-level)
First Year:
I. MGT I20H
2. MAT I37Y। $(55 \%) / I 57 \mathrm{Y}$ I
3. ECO IOOYI (70\%)
4. MAT $223 \mathrm{HI} / 240 \mathrm{HI}$ (should be taken in first year)

Higher Years:
I. ACT $240 \mathrm{HI}, 245 \mathrm{HI}, 247 \mathrm{HI}, 348 \mathrm{HI}, 370 \mathrm{HI}$
2. MAT $237 \mathrm{Y} \mathrm{I} / 257 \mathrm{Y} \mathrm{I}$
3. STA $(257 \mathrm{HI}, 26 \mathrm{IHI})$
4. Two of: ACT $349 \mathrm{HI}, 45 \mathrm{IHI}, 455 \mathrm{HI}, 460 \mathrm{HI}$, STA 302 HI , $347 \mathrm{HI}, 457 \mathrm{HI}$

## Actuarial Science Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), ACT courses are classified as Science courses

ACT230HI Mathematics of Finance for 26L, I3T Non-Actuaries
Introduction to financial mathematics, interest measurement, present value calculation, annuity valuation, loan amortization, consumer financing arrangements, bond valuation. The course is aimed at a general audience who will not be continuing in the actuarial science program.
Prerequisite: First-year Calculus
Exclusion: ACT240HI
ACT240HI Mathematics of Investment 26L, I3T
\& Credit
Interest, discount and present values, as applied to determine
prices and values of annuities, mortgages, bonds, equities; loan
repayment schedules and consumer finance payments in general;
yield rates on investments given the costs on investments.
Prerequisite: MATI33YI/I35YI/I37YI/I57YI

ACT245HI Financial Principles for 26L, I3T

## Actuarial Science I

Term structure of interest rates, cashflow duration, convexity and immunization, forward and futures contracts, interest rate swaps, introduction to investment derivatives and hedging strategies.
Prerequisite: ACT240HI, MATI37YI/I57YI
Co-requisite: MAT237YI, STA257HI
ACT247HI Introductory Life Contingencies 39L Probability theory applied to survival and to costs and risks of life assurances, life annuities, and pensions; analysis of survival distributions; international actuarial notation.
Prerequisite: ACT240HI; MAT I37YI/I57YI; STA257HI Co-requisite: MAT237YI
ACT348HI Advanced Life Contingencies 39L
Determination of benefit premium and benefit reserves for life insurance and annuities; analysis of insurance loss random variables; theory of life contingencies for multiple lives.
Prerequisite: ACT240HI (minimum grade C); ACT245HI (minimum grade C); 247HI (minimum grade C); (STA257HI,26IHI); MAT237YI

ACT349HI Corporate Finance for 26L, I3T Actuarial Science Mathematics
Actuarial applications of financial mathematics and economics.
Prerequisite: ACT240HI (minimum grade C);ACT245HI (minimum grade C); 247HI (minimum grade C); (STA257HI, 26IHI); MAT237YI; ECO206YI
Exclusion: ECO $358 \mathrm{HI}, 359 \mathrm{HI}, \mathrm{MGT} 33 \mathrm{IYI}, 337 \mathrm{Y}$ I

## ACT370HI Financial Principles for Actuarial Science II

Mathematical theory of financial derivatives, discrete and continuous option pricing models, hedging strategies and exotic option valuation.
Prerequisite: ACT240HI (minimum grade C); ACT245HI (minimum grade C); 247 HI (minimum grade C ); (STA257HI,26IHI); MAT237YI
Exclusion: MGT438HI

## ACT398H0/ Independent Experiential Study Project

 399Y0An instructor-supervised group project in an off-campus setting. See page 47 for details.
This is a Science course.

## ACT45IHI Loss Models

39L
Loss models and their estimation, mixture distributions, compound distributions, partial insurance, stop-loss insurance, censoring and truncation of data, product-limit estimation, Cox proportional hazard model.
Pre- or co-requisite: ACT348HI; STA347HI, STA26IHI

## ACT455HI Advanced Topics in

39L
Actuarial Science
Advanced life contingencies, multiple decrement theory, insurance policy expenses, multi-state transition models, Poisson processes.
Prerequisite: ACT348HI; STA347HI

## ACT460HI Stochastic Methods for 39L

Actuarial Science
Applications of the lognormal distribution, Brownian motion, geometric Brownian motion, martingales, Ito's limma, stochastic differential equations, interest rate models, the Black-Scholes model, volatility, value at risk, conditional tail expectation. Prerequisite:ACT370HI; STA347HI
ACT466HI Credibility and Simulation 39L Limited fluctuation credibility, Bayesian estimation, Buhlmann credibility, non-parametric credibility methods, inverse transformation simulation method, specialized simulation methods for the normal and lognormal distributions, Monte Carlo methods, the bootstrap method.
Prerequisite:ACT45IHI; STA347HI
ACT470HI Advanced Pension Mathematics 39L
Topics in pension mathematics; funding methods for pension plans. (Offered in alternate years)
Prerequisite: ACT348HI or permission of instructor Corequisite: ACT455HI
ACT47IHI Actuarial Applications of Finance 39L
Assets, liability and investment management for pension plans. (Offered in alternate years)
Prerequisite: ACT349HI/ /MGT337YI/(ECO 358HI, ECO 359 HI ) or permission of instructor

## ACT472HI Issues in Actuarial Practice 39L

Practical issues that arise for insurance, pension and casualty actuaries.
Prerequisite: ACT348HI
ACT496HI/ Readings in Actuarial Science TBA 497 HI
Independent study under the direction of a faculty member. Persons wishing to take this course must have the permission of the Undergraduate Secretary and of the prospective supervisor.
ACT498Y I/ Readings in Actuarial Science TBA
499YI
Independent study under the direction of a faculty member. Persons wishing to take this course must have the permission of the Undergraduate Secretary and of the prospective supervisor.

## American Studies (USA)

The American Studies Program is designed to provide students with a broad, yet deep, education about the United States. To ensure breadth, students are required to take an interdisciplinary core course that ranges widely both with respect to the themes covered and disciplinary perspectives applied. As well, the Program offers a wide selection of courses from participating departments and programs in the Faculty, giving students broad exposure to fundamental themes of American life. To ensure depth, the American Studies Program relies heavily on upper level courses, including its own capstone seminars at the 400-level.

## American Studies Program

Enrolment in the programs listed below is open to students who have completed four courses; no minimum GPA is required.

## American Studies (Arts program)

Consult Prof. Elspeth Brown, Room 327N, Munk Centre for International Studies (4I6-946-80II) for general program requirements.

## Major program:

(6 full courses or their equivalent, including at least two 300+ series courses and at least three disciplines)
Second year:
I. HIS 27IYI/ENG 250YI/POL 203YI

Third year:
2. USA 300YI

Second, third, or fourth year:
3. Four courses from the following: $\mathrm{ABS} 302 \mathrm{HI}, 34 \mathrm{IHI}, 403 \mathrm{HI}$, $405 \mathrm{YI} ;$ ANT $362 \mathrm{YI}, 365 \mathrm{HI}$; DRM3IOHI; ECO 307HI, 423 HI ; ENG $254 \mathrm{YI}, 268 \mathrm{HI}, 275 \mathrm{YI}, 358 \mathrm{YI}, 359 \mathrm{YI}, 36 \mathrm{HI}$; FAH 375 HI ; GGR $240 \mathrm{HI}, 254 \mathrm{HI}, 336 \mathrm{HI}, 339 \mathrm{HI}, 360 \mathrm{HI}$; HIS I06YI, 202HI, $3 \mathrm{I} 6 \mathrm{HI}, 32 \mathrm{IHI}, 327 \mathrm{HI}, 368 \mathrm{HI}, 369 \mathrm{YI}$, $370 \mathrm{HI}, 37 \mathrm{HI}, 374 \mathrm{HI}, 375 \mathrm{HI}, 376 \mathrm{HI}, 377 \mathrm{YI}, 378 \mathrm{HI}$, $379 \mathrm{HI}, 393 \mathrm{HI}, 40 \mathrm{Y} \mathrm{I}, 404 \mathrm{HI}, 408 \mathrm{YI}, 43 \mathrm{IHI}, 436 \mathrm{HI}$, $447 \mathrm{YI}, 47 \mathrm{IHI}, 473 \mathrm{YI}, 474 \mathrm{HI}, 475 \mathrm{HI}, 476 \mathrm{HI}, 478 \mathrm{HI}$, $479 \mathrm{YI}, 482 \mathrm{HI}, 484 \mathrm{HI}$; INI $225 \mathrm{YI}, 322 \mathrm{HI}, 324 \mathrm{YI}, 383 \mathrm{HI}$, $460 \mathrm{HI}, 463 \mathrm{HI}, 483 \mathrm{HI}$; MUS $230 \mathrm{HI}, 306 \mathrm{H}, 3 \mathrm{I} 5 \mathrm{HI}, \mathrm{POL}$ $3 I 9 \mathrm{YI}, 326 \mathrm{YI}, 349 \mathrm{YI}, 420 \mathrm{YI}, 433 \mathrm{YI}$; RLG 3I5HI, 442 HI ; USA $400 \mathrm{HI}, 40 \mathrm{IHI}, 494 \mathrm{HI}, 495 \mathrm{YI}$
NOTE: Other 300+ series courses with American content may be allowed; students should seek early approval of program credit for such courses.

## Minor program:

(4 full courses or their equivalent, including at least one 300+ series course and at least two disciplines)
Second year:
I. HIS 27IYI/ENG 250YI/POL 203YI

Third year:
2. USA 300 Y

Second, third, or fourth year:
3. Two courses from the following: $\mathrm{ABS} 302 \mathrm{HI}, 34 \mathrm{IHI}, 403 \mathrm{HI}$, 405 YI ;ANT362YI, 365HI; DRM3IOHI; ECO 307HI, 423 HI ; ENG $254 \mathrm{YI}, 268 \mathrm{HI}, 275 \mathrm{YI}, 358 \mathrm{YI}, 359 \mathrm{YI}, 36 \mathrm{HI}$; FAH 375 HI ; GGR $240 \mathrm{HI}, 254 \mathrm{HI}, 336 \mathrm{HI}, 339 \mathrm{HI}, 360 \mathrm{HI}$; HIS I06YI, $202 \mathrm{HI}, 316 \mathrm{HI}, 32 \mathrm{IHI}, 327 \mathrm{HI}, 368 \mathrm{HI}, 369 \mathrm{YI}$, $370 \mathrm{HI}, 37 \mathrm{IHI}, 374 \mathrm{HI}, 375 \mathrm{HI}, 376 \mathrm{HI}, 377 \mathrm{YI}, 378 \mathrm{HI}$, $379 \mathrm{HI}, 393 \mathrm{HI}, 40 \mathrm{IYI}, 404 \mathrm{HI}, 408 \mathrm{YI}, 43 \mathrm{IHI}, 436 \mathrm{HI}$, $447 \mathrm{YI}, 47 \mathrm{IHI}, 473 \mathrm{YI}, 474 \mathrm{HI}, 475 \mathrm{HI}, 476 \mathrm{HI}, 478 \mathrm{HI}$,

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479YI, 482HI, 484HI; INI 225YI, 322HI, 324YI, 383HI,
460HI, 463HI, 483HI; MUS 230HI, 306H,3I5HI, POL
3I9YI, 326YI, 349YI, 420YI, 433YI; RLG 3I5HI, 442HI;
USA 400HI, 40IHI, 494HI, 495YI
NOTE: Other 300+ series courses with American content may be allowed; students should seek early approval of program credit for such courses.
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## American Studies Courses

See page 33 for Key to Course Descriptions.
The Distribution Requirement status (see page 27) is listed below each course description.

USA300YI Thinking about the U.S.A. 52L, 26T An interdisciplinary introduction to the practice of American Studies organized around key periods in the history of the United States in which Americans reinvented themselves, thought in novel ways about who they were, and redrew the boundaries that defined citizenship and membership in the nation. This course illustrates the multi-disciplinary nature of American Studies, creating a conversation about the United States using materials and approaches from history, literature, cultural studies, economics and political science.
Prerequisite: HIS 27IYI/ENG 250YI/POL 203YI
Exclusion: USA 200YI
This is a Humanities or Social Science course

## USA400HI Topics in American Studies I 26S

In depth examination of specific themes relating to American Studies.
Prerequisite: At least two courses from the American Studies list
This is a Humanities or Social Science course
USA40IHI Topics in American Studies II 26S
In depth examination of specific themes relating to American Studies.
Prerequisite: At least two courses from the American Studies list
This is a Humanities or Social Science course
USA494HI Independent Studies
This is a Humanities or Social Science course
USA495YI Independent Studies
This is a Humanities or Social Science course

Anatomy: see Life Sciences:Anatomy


## Faculty

## University Professor Emeritus

R.B. Lee, MA, Ph D, FRSC

Professors Emeriti
D. Burton, MA, Ph D (S)

JJ. Chew, MA, Ph D
R.B. Drewitt, Ph D

Mississauga)
J. Mavalwala, M Sc, Ph D
S. Nagata, MA, Ph D (U)
S.B. Philpott, MA, Ph D
T.E. Reed, BA, Ph D
W.J. Samarin, BA, Ph D
B.A. Sigmon, MS, Ph D (University of Toronto Mississauga)
R.M.Vanderburgh, MA, Ph D (University of Toronto Mississauga)
Professor and Chair of the Department J.P. Boddy, MA, Ph D, FRSC

## Professors

B. Banning, MA, Ph D (U)
n, MA, Ph D
G.W. Crawford, MA, Ph D (University of Toronto Mississauga)
M. Danesi, MA, Ph D, FRSC
.Lambek, MA, Ph D, FRSC (S)
H.V. Luong, MA, Ph D
S.K. Pfeiffer, MA, Ph D


Associate Professors
S. Bamford, MA, Ph D (S)
M. Chazan, M Phil, Ph D (V)
H. Cunningham, MA, Ph D (U)
T.M. Friesen, MA, Ph D
G.S. Gillison, BA, Ph D (S, T)
M.A. Latta, MA, Ph D (S)
S. Lehman, MA, PhD
M.D. Levin, MA, Ph D (N)
B. McElhinny, MA, Ph D
L.A. Sawchuk, MA, Ph D (S)
J. Sidnell, MA, Ph D (University of Toronto Mississauga)
K. Sieciechowicz, MA, Ph D (U)
D.G. Smith, MA, Ph D (University of Toronto Mississauga)
J. Barker, MA, Ph D
D. Clark, MA, Ph D (University of Toronto Mississauga)
N. Dave, MA, Ph D
H. Miller, MA, PhD (University of Toronto Mississauga)
L. Mortensen, MA, Ph D (S)
V. Napolitano-Quayson, AM, Ph D
E. Parra, BS, Ph D (University of Toronto Mississauga)
T.L. Rogers, MA, PhD (University of Toronto Mississauga)
M. Roksandic, MA, DEA, Ph D
T. Sanders, MA PH D (University of Toronto Mississauga)
S. Satsuka, MA, Ph D
M. Schillaci, MA, PH D (S)
R.J. Song, MA, Ph D (S)
W.C. Sung, MA, Ph D
H.Wardlow, MA, Ph D, MPH
D. J. Young, MA, Ph D (S)

Anthropology is concerned with human biological, social, and cultural development. This broad mandate has led to the division of the discipline into four distinctive areas of research.

Archaeology studies surviving evidence of people's activities in the past. From the excavation of sites and the analysis of artifacts uncovered, archaeologists draw conclusions about the organization of social groups, their adaptations to environment, and their spatial and temporal relations. General research topics include the origins of culture and technology, adaptations to extreme climates, the peopling of the New World, development of food production and political inequality in the Old and New Worlds.

Linguistic and Semiotic Anthropology studies how language and other systems of human communication contribute to the reproduction, transmission, and transformation of culture. It is concerned with the role of language and other communicative systems in reproducing and transforming such aspects of society as power relations, ideology, subcultural expression, as well as class, gender and ethnic identity.

Biological Anthropology is the study of the biological diversity of humans, the history of this diversity, and the biological relationships between humans and non-human primates. Major foci in Biological (Physical) Anthropology include Human Biology, the study of modern humans; Osteology, the study of the human skeleton; Paleoanthropology, the study of human evolution; and Primatology, the study of non-human primates. Biological anthropologists integrate biological and social variables in their explanations of the effects of evolution on humans and other primates.

Social and Cultural Anthropology: traditionally, Social Anthropology dealt with non-literate and isolated societies, which could be observed in their totality. Today, many social anthropologists also study such aspects of complex societies as peasantry, ethnic minorities, and industrial work groupings. Institutions and models of social behaviour are compared crossculturally to establish more general concepts and theories.

Careers in Anthropology emphasize either theoretical, academic aspects or practical applications. Most institutions involved in teaching and research require anthropologists with a Ph.D. For practical applications, at least an M.A. is usually required. The Undergraduate Program provides excellent preparation for business or public service careers in which international and human diversity issues are important. Courses in anthropology provide a unique grounding and can be fruitfully combined with courses in a wide variety of other disciplines.

## Anthropology

Undergraduate Program Administrator/Student Counsellor: Sidney Smith Hall, Room IO30 (4I6-978-64I4).

## Anthropology Programs

Enrolment in the Specialist, Major and Minor Programs is limited to students with a cumulative GPA of 2.5 or above. Students may enroll at the end of First Year, or at any later time if they have a cumulative GPA of 2.5 or above.
PLEASE NOTE THAT NOT ALL COURSES ARE OFFERED EVERY YEAR. CONSULT THE CURRENT TIMETABLE FOR COURSE OFFERINGS.

* Note:ANT courses are those offered with the following prefixes:ANT, ABS, ARH, JAC, JAL, JAP and JPA.


## Anthropology (General) (Arts program)

## Specialist program:

(II full courses or their equivalent, including at least one 400series course)
. ANT I00YI
2. Three 200+ series ANT* courses from one of Groups A, B, C, D
3. Three 200+ series ANT* courses from a Group other than the group chosen in 2 . (above)
4. Four additional ANT* courses with at least one full course at the 400-level

Major program:
7 ANT* full courses including ANT IOOYI and at least three 300+ series courses

## Minor program:

4 ANT* full courses, of which at least one must be $300+$ series course; excluding ANT497/498/499

## Anthropology (Linguistic \& Semiotic)

## (Arts program)

## Major program:

(7 full courses or their equivalent, including at least two 300+ series courses)
I. ANT I00YI
2. ANT253HI, and either ANT204YI or VIC220YI
3. Three courses from Group B (VIC 220 YI may be substituted for one full course, if it is not used to satisfy requirement 2)
4. I.5 additional ANT* courses

## Anthropology (Biological) (Science program)

## Specialist program:

( 11.5 full courses or their equivalent, including at least one 400 series course)
First Year

1. ANT 203Y
2. BIO I5OY
3. One of: MATI35YI/I37YI/I57YI/(CHM I $38 \mathrm{HI}, \mathrm{I} 39 \mathrm{HI})$ ) PHYIIOYI/I38YI/I40YI/GGRI00YI/GLG (I05HI, IIOHI)
Higher Years
I. One full course equivalent from: $\mathrm{BIO} 250 \mathrm{Y} / / 25 \mathrm{I} \mathrm{YI} / 252 \mathrm{YI} /$ $260 \mathrm{HI} / \mathrm{CHM} 220 \mathrm{HI} / 247 \mathrm{HI} / \mathrm{EEB} 214 \mathrm{HI} / 215 \mathrm{HI} / 263 \mathrm{YI} /$ 265YI/ENV234YI/235YI/GGR20IHI/GLG 217HI/HMB $200 \mathrm{HI} / 20 \mathrm{IHI} / 202 \mathrm{HI} / 265 \mathrm{HI} / 320 \mathrm{HI} / \mathrm{NFS} 284 \mathrm{HI} / P S L 20 I Y I I$
4. One of: STA220HI/22IHI/JBS229HI/GGR27IHI/ PSY20IHI/202HI
5. Two of ANT326YI/333YI/334YI
6. Two additional $300+$ series full course equivalents from group C, with at least one full course at the 400 level.
7. One additional full course equivalent from another ANT group.
8. Two full courses or their equivalent from the following: ANA300YI/ANT3IIYI/330YI/406HI/4IOHI/4I5YI/4I9H/ EEB3I $9 \mathrm{HI} / 32 \mathrm{IHI} / 322 \mathrm{HI} / 323 \mathrm{HI} / 324 \mathrm{HI} / 328 \mathrm{HI} / 362 \mathrm{HI} /$ $365 \mathrm{HI} / 428 \mathrm{HI} / 462 \mathrm{HI} / G G R 272 \mathrm{HI} / 273 \mathrm{HI} / G L G 206 \mathrm{HI} /$ $216 \mathrm{HI} / 217 \mathrm{HI} / 360 \mathrm{HI} / 436 \mathrm{HI} / \mathrm{HMB} 300 \mathrm{HI} / 302 \mathrm{HI} / 3 \mathrm{I} 0 \mathrm{HI} /$ $420 \mathrm{HI} / \mathrm{MGY} 3 \mathrm{I} 2 \mathrm{HI} / \mathrm{NFS} 382 \mathrm{HI} / P S L 302 \mathrm{Y}$

## Major program:

(7 full courses or their equivalent, including at least two 300+series courses)

First Year:
I. BIO I50YI
2. One of: MAT I35Y/I37Y/I57Y/(CHM I38H, CHM I39H)/ PHY IIOY/I38Y/I40Y/GGR IOOY/GLG (I05HI, IIOHI)
Higher Years:
I. ANT 203YI
2. At least 2 courses from ANT326YI, 333YI, 334YI
3. Two other courses from Group $C$

## Anthropology (Social/Cultural) (Arts program)

## Specialist program:

(II full courses or their equivalent, including at least one 400series course)
. ANT I00YI
2. ANT 204YI
3. One from ANT $200 \mathrm{YI}, 203 \mathrm{YI}, \mathrm{ANT} 253 \mathrm{H}$ (if ANT253H is taken, one additional ANT half course must be taken)
4. Six courses from Group D (one of ANT 323YI or ANT 329 Y I may be substituted), with at least one full course at the 400-level
5. Two additional ANT* courses

## Anthropology Groups

Group A: (Archaeology)
ANT 200YI, 299YI, $3 \mathrm{II} \mathrm{YI}, 3 \mathrm{I} 5 \mathrm{HI}, 3 \mathrm{I} 6 \mathrm{H}, 3 \mathrm{I} 7 \mathrm{H}, 3 \mathrm{I} 9 \mathrm{YI}, 406 \mathrm{HI}$, $409 \mathrm{HI}, 4 \mathrm{I} 0 \mathrm{HI}, 4 \mathrm{IIHI}, 4 \mathrm{I} 2 \mathrm{HI}, 4 \mathrm{I} 5 \mathrm{YI}, 4 \mathrm{I} 7 \mathrm{HI}, 4 \mathrm{I} 9 \mathrm{HI}, 420 \mathrm{HI}$, $42 \mathrm{IH}, 43 \mathrm{IHI}, 497 \mathrm{YI} / 498 \mathrm{HI} / 499 \mathrm{HI} ; A R H 305 \mathrm{HI}, 3 \mathrm{I} 2 \mathrm{YI}, 360 \mathrm{YI}$, $36 \mathrm{IHI}, 482 \mathrm{HI} ; \mathrm{JPA} 305 \mathrm{HI}, 3 \mathrm{IOHI}, 400 \mathrm{Y}$ I

Group B: (Linguistic and Semiotic)
ANT $253 \mathrm{H}, 299 \mathrm{YI}, 323 \mathrm{YI}, 329 \mathrm{YI}, 425 \mathrm{HI}, 426 \mathrm{HI}, 427 \mathrm{HI}$, $444 \mathrm{YI}, 483 \mathrm{H}, 497 \mathrm{YI} / 498 \mathrm{HI} / 499 \mathrm{HI} ; \mathrm{JAL} 328 \mathrm{HI}, 355 \mathrm{HI}, 40 \mathrm{HI}$

Group C: (Biological)
ANT 203YI, 299YI, $326 \mathrm{YI}, 330 \mathrm{YI}, 333 \mathrm{YI}, 334 \mathrm{YI}, 429 \mathrm{HI}, 430 \mathrm{H}$, $43 \mathrm{IHI}, 434 \mathrm{HI}, 436 \mathrm{HI}, 47 \mathrm{IHI}, 48 \mathrm{IHI}, 497 \mathrm{Y} / 498 \mathrm{HI} / 499 \mathrm{HI}$

Group D: (Social-Cultural)
ANT $204 \mathrm{YI}, 299 \mathrm{YI}, 322 \mathrm{HI}, 340 \mathrm{H}, 34 \mathrm{IY}, 343 \mathrm{YI}, 344 \mathrm{YI}, 346 \mathrm{HI}$,
$347 \mathrm{YI}, 348 \mathrm{YI}, 349 \mathrm{HI}, 350 \mathrm{H}, 352 \mathrm{Y}, 354 \mathrm{Y}, 362 \mathrm{YI}, 363 \mathrm{YI}, 364 \mathrm{YI}$, $365 \mathrm{HI}, 366 \mathrm{HI}, 367 \mathrm{YI}, 368 \mathrm{HI}, 426 \mathrm{HI}, 440 \mathrm{HI}, 442 \mathrm{HI}, 443 \mathrm{H}$, $444 \mathrm{YI}, 445 \mathrm{HI}, 446 \mathrm{HI}, 447 \mathrm{HI}, 448 \mathrm{HI}, 450 \mathrm{HI}, 452 \mathrm{HI}, 453 \mathrm{HI}$, $454 \mathrm{HI}, 455 \mathrm{YI}, 456 \mathrm{H}, 458 \mathrm{H}, 459 \mathrm{H}, 460 \mathrm{H}, 46 \mathrm{IYI}, 462 \mathrm{H}, 47 \mathrm{IH}$, $480 \mathrm{HI}, 497 \mathrm{Y} / 498 \mathrm{HI} / 499 \mathrm{HI}$; EAS 272 H ; JAG 32 IHI ; JHA $453 \mathrm{HI} ; \mathrm{NEW} 252 \mathrm{HI}, 350 \mathrm{HI}$

## Aboriginal Studies - See Aboriginal Studies

Archaeological Science \& Archaeology - See Archaeology

## Environmental Anthropology Minor- See Centre for Environment

A program focused on understanding the diverse nature of interactions between humans and their environments, both in the past and in modern global society.

## Past Environments Specialist - See Centre for Environment

A multi-disciplinary program focused on the changing nature of the relationship between the environment and humans over the past 2 million years. Co-sponsored by the Centre for Environment, the Department of Anthropology, and the Program in Archaeology. Consult David Powell, Undergraduate Student Advisor, Centre for Environment, Room I049A, Earth Sciences Centre, 416-946-8I00 or david.powell@utoronto. ca, or Undergraduate Program Administrator, Department of Anthropology, Room 1030, Sidney Smith Hall, 416-978-64I4.

## Anthropology Courses

Anthropology offers Social Science and Science Courses; below are first, Social Science courses, then Science courses.

## Anthropology Social Science Courses

See page 33 for Key to Course Descriptions.
SSCI99HI/YI First Year Seminar $52 S$
Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first-year students. It may serve as a distribution requirement course; see page 47.
ANTI00YI Introduction to Anthropology 52L Society and culture from various anthropological perspectives: socio-cultural, biological, archaeological, and linguistic.

ANT200YI Introduction to Archaeology 52L, 26P
Cultures in the Old and New Worlds from an archaeological perspective. Principles of prehistoric research are applied to archaeological information, from the Early Pleistocene to the beginning of written history.
Recommended Preparation: ANTIOOYI
ANT204YI Social \& Cultural Anthropology 52L, 26T
Basic approaches to the understanding of social and cultural organization in societies of varying complexity. Comparative social institutions: economic, political, familial, and ritual. Belief systems and symbolic thought, the individual in society, sources of stability and change in socio-cultural systems. Anthropological perspectives on current social issues.

## Recommended preparation:ANTIOOYI

ANT253HI Language \& Society
This course introduces linguistic analysis with a view towards its application to the study of the relation between culture and social structure. The interplay of pronunciation, grammar, semantics, and discourse with rituals, ideologies, and constructions of social meaning and worldview are discussed in tandem with the traditional branches of linguistic analysisphonology, morphology, grammar, syntax, and semantics. The objective of the course is to provide a broad framework for understanding the role of language in society.
Recommended Preparation:ANT IOOYI Exclusion: JAL253HI

## ANT299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.

## ARH305HI Archaeological Interpretation See Archaeology

ANT3IIYI Archaeological Fieldwork TBA
Practical field training through six weeks of excavation on an archaeological site. Basic principles of artifact handling and classification. (Offered only in Summer Session) Prerequisite: ANT200YI

## ARH3I2YI Archaeological Laboratory See Archaeology

ANT3I5HI Arctic Archaeology 26L
Archaeology and ethnohistory of Arctic cultures. Emphasis is on variation in social organization, settlement pattern, economy, ideology, and interaction with the expanding European worldsystem.
Prerequisite: ANT200YI

## ANT3I6HI Ancient Cultures of Mesoamerica

This course provides an introduction to the cultures of Mesoamerica, from the first arrival of indigenous peoples to the appearance of the Spaniards in the sixteenth century. Students will become acquainted with cultures including Olmec, Zapotec, Teotihuacan, Maya, and Aztec, while also considering issues of method and evidence.
Prerequisite: ANT200YI
This is a Social Science course.

## ANT3I7HI Archaeology of Eastern North America

This course examines the precontact and early contact period culture history of eastern North America, including Ontario, through archaeological evidence. Topics covered include the earliest peopling of the region at the end of the Ice Age, diversity of hunter-gatherer societies, introduction of agriculture, and the development of the dynamic First Nations societies who eventually met and interacted with Europeans. Prerequisite:ANT 200Y
This is a Social Science course.

## ANT3I9YI Archaeology of North America 52L (formerly ANT 3IOYI)

This course examines human prehistory in North America,
North of Mexico, from the time of earliest occupation to
European contact. Special topics include Paleoindian and Archaic adaptations, the rise of complex hunter-gatherers, origins of farming and the evolution of complex chiefdoms.
Exclusion: ANT309HI, 3IOYI
Prerequisite:ANT200YI

## Anthropology

## ANT322HI Anthropology of Youth Culture 26L

This course will present various perspectives on the nature and dynamics of youth culture. It will discuss the research accumulated over the past quarter century on youth lifestyles, from fashion and music to the formation and spread of slang. It will also look at the various critical and controversial aspects of adolescence in contemporary culture.
Prerequisite: ANT 204YI

## ANT323YI Social Theory through Popular 52L, 26T Culture

Theories of culture and society, with examples from ordinary life and fantasy and their popular expressions.
Prerequisite: ANT204YI/ANT253HI/ one other 200+ course in
ANT/SOC
JAL328HI Writing Systems 26L
Introduction to writing systems; their historical development, their relationship to language, and their role in culture and society. (Given by the Departments of Anthropology and Linguistics)

## Prerequisite:ANTIOOYI/LINIOOYI

## ANT329YI Language \& Power Structure 52L

The role of language and symbolism in the representation and manipulation of ideology and power structure. Case materials drawn from the study of verbal arts, gender, law, ethnic relations, consumption patterns, advertising, and politics with a focus on North America.
Prerequisite: ANT204YI/ANT253HI/ one of 200+ series "YI" course in SOC/POL/Women's Studies

ANT340HI Anthropology of Latin America 26L
Provides a framework for understanding current anthropological issues in the different geo-political regions of Latin America. Special attention will be paid to historical/ conceptual development of the discipline in the region, and the course will introduce a debate about the dealth and
"resurgence" of area studies.
Prerequisite:ANT204YI

## ANT 34IYI China in Transition 52L

This course offers a general introduction to contemporary China in a global context from an anthropological perspective.
This year-long course covers four major aspects of Chinese culture and society: Political Economy, Social Relations, Modernities and Modernization, and Overseas Chinese. Recommended Preparation:ANT 204YI
ANT343YI Social Anthropology of Gender 52L Social anthropological perspectives on variations in gender roles and systems. Examines, through comparison of ethnography, the relationship of gender to social organization, economic and political processes, belief systems and social change. Prerequisite: ANT204YI
ANT344YI Anthropology of Southeast Asia 52L
Pre-industrial sociocultural types and their transformation in the national development of Southeast Asia. Prerequisite: ANT204YI

## ANT346HI Anthropology of Food 26L

Social anthropological perspective on the nature and meaning of food production, culinary cultures, industrial food, food as metaphor, and famine and hunger.
Prerequisite:ANTI00YI/204YI

## ANT347YI Metropolis: Global Cities 52L

The role of culture, cultural diversity, space and performance in urban institutions and settings. The cultural context and consequence of urbanization.
Recommended preparation:ANT204YI
ANT348YI Anthropology of Health 52L
Aspects of health and disease in cross-cultural perspective.
Critical views on the interface between conventional "western" medicine and alternative, indigenous, and traditional therapeutic systems.
Prerequisite: ANT204YI
ANT349HI Globalization \& Underdevelopment 26L
The contribution of ethnographic study to the understanding of regional disparities within Western and Third World nations. The inter-relationship between persistent economic underdevelopment, expressions of regional identity and class formation by reference to comparative ethnographic examples. Prerequisite:ANT204YI

## ANT350HI Globalization and the Changing 26L World of Work

The course uses ethnographic material to examine the ways in which global forces have changed the nature of work in different sites since World War Two - North America, Europe, and the countries of the South are selectively included.
Prerequisite:ANT204YI

## ANT352YI South Asia: Practices, Theories, 52L Representations

This course examines key themes in the constitution of South Asia as an area for ethnographic analysis. The first half analyzes classic texts in the anthropology of South Asia, examining the rise of gatekeeping concepts such as caste, the village, collectivity, and patriarchal social organization. The second half focuses on ethnographies of popular culture, sexuality and gender and political mobilizations.
Prerequisite: ANT204YI
This is a Social Science course.

## ANT354YI

Japan in Global Context:
52L

## Anthropological Perspectives

This course examines how what we know as Japan and its culture has been constructed through various types of global interactions. The course uses popular culture, travel encounters and transnational capitalism as lenses for analyzing the dynamics of Japanese society. Topics include gender and sexuality, race and ethnicity, social and family life, work and leisure, and Japanese identity amid changing global power relations. The focus will be on cultural politics: how competing ideas of Japanese society are expressed through particular cultural practices, and how people engage with these practices in order to negotiate their positions in the world.
Prerequisite:ANT204YI
This is a Social Science course.
JAL355HI Language and Gender 26L
Ways in which women and men differ in their use of language and in their behaviour in conversational interaction; ways in which language reflects cultural beliefs about women and men. (Given by the Departments of Anthropology and Linguistics)
Prerequisite:Two full course equivalents at the 200-level in
ANT/JAL/LIN/SOC
Recommended preparation:ANT204YI/ANT253HI/ NEW26IYI/ SOC200YI/2I4YI/2I5YI
ARH360YI Prehistory of the Near East
See Archaeology
ARH36IHI Field Archaeology
See Archaeology

ANT362YI Anthropological Studies of Poverty, Social Inequality and the U.S. State
This course examines the growing field of U.S. anthropology through ethnographic studies focusing on state institutions and patterns of social inequality. Particular emphasis is placed on research examining local models of governance, policing, immigration reform, unionization and social assistance programs in the context of shifting governmental policies. Prerequisite: ANT 204Y।

## ANT363YI Anthropology of State 52L, 26T Societies

Origins, history and internal dynamics of early and modern state societies, examined with a view to placing our own system in an historical and comparative perspective. Case studies include material from Africa, Asia, the Americas and Europe. Exclusion: ANT363HI

## Prerequisite: ANT204YI

ANT364YI Environment \& Globalization 52L
This course will examine the relationships between humans and the environment in the context of contemporary efforts to 'develop' within or in opposition to the political economy of neoliberal globalization. We will critically examine the discourses of progress and environment within a broader theoretical inquiry of structure/agency and power. Prerequisite: ANT 204YI
ANT365HI $\begin{aligned} & \text { Native America and the State 26L } \\ & \text { (formerly ANT365YI) }\end{aligned}$
Culture areas and types existing in precontact and early contact times in North America; problems arising out of contacts between North American Indians and Euroamericans.
Prerequisite: ANT204YI
Exclusion:ANT 365YI

## ANT366HI Anthropology of Social 26L, 13T Movements:Theory and Method (formerly ANT 366YI)

Explores how anthropologists have traditionally studied social movements and how new social movements have challenged anthropologists to rethink some of their ethnographic methods and approaches. Some specific movements covered include those related to indigenous rights, environmentalism, refugees, gay and lesbian issues, biotechnology, new religions, and globalization.
Prerequisite: ANT204YI
Exclusion:ANT366YI
ANT367YI Indigenous Spirituality 52L
This course focuses upon religion and spirituality amongst peoples with a direct, experiential relationship to the world. The first term examines case studies from Australia, Native North America and Africa; the second term examines aspects of the "world religions'.
Prerequisite:ANT204YI/RLG20IYI

## ANT368HI Ethnography \& Social Movements

This course focuses on ethnographic studies of social movements produced both by anthropologists and social
movement activists. By analyzing several case studies, the course explores the particular difficulties and rewards of working with social movements as well as some of the intellectual, ethical and political dilemmas that result of an engaged anthropology. Prerequisite: ANT 204YI

## ANT395Y0/ Special Topics in Anthropology <br> 52S

## 396Y0

Studies in anthropology taken abroad. Areas of concentration vary depending on the instructor and year offered.
Recommended Preparation:ANT I00YI/204YI

## ANT398HO/ Independent Experiential Study Project 399Y0

An instructor-supervised group project in an off-campus setting. See page 47 for details.

JAL40IHI Field Linguistics 52P
Practice in language analysis based on elicited data from a native speaker of a foreign language, emphasizing procedures and techniques. (Given by the Departments of Anthropology and Linguistics)
Prerequisite: Completion of LIN322HI, 33IHI except for students in their final year where LIN33IHI is a corequisite.

## ANT406HI Lithic Analysis 26L,I3P

Core reduction strategies, replication, experimental archaeology, use-wear, design approaches, ground stone, inferring behaviour from lithic artifacts.
Prerequisite: ANT200YI,ARH3I2YI, 305HI

## ANT409HI Archaeology of Landscapes 26L,I3P \& Regions

The survey and spatial analysis of archaeological evidence over territories larger than individual camps, villages or towns. Settlement systems, regional exchange and communication, rank-size analysis, nearest neighbour analysis etc.
Prerequisite:ARH305HI
Recommended preparation: GGR270HI
ANT4IOHI Hunter-Gatherers Past \& Present 26S
Examines the diversity of recent hunter-gatherer societies, as a source of analogues for understanding the archaeological record of past foraging peoples.
Prerequisite:ARH305HI

## ANT4IIHI Advanced Archaeological Theory

Seminar in the critical examination of major schools of archaeological thought.
Prerequisite: ARH305HI
ANT4I2HI Historical Archaeology 26L, I3P
Introduces the problems, methods and some of the material culture of colonial and industrial archaeology with emphasis on Canada and colonial America. Covers the use of documentary evidence, maps, architecture, and a variety of artifact classes. Prerequisite: ANT200YI/HIS374HI/384HI

ANT4I5YI $\quad$| Laboratory in Faunal |
| :--- |
| Archaeo-Osteology |

Examination and interpretation of faunal material from
archaeological sites as evidence for culture.
Prerequisite: ARH3I2YI

## ANT4I7HI Archaeology of Settlements

 \& HouseholdsMethods for studying the socio-spatial aspects of the archaeological evidence for households and communities. Prerequisite: ANT200YI,ARH305HI

## Anthropology

## ANT4I9HI Current Debates in Palaeolithic Archaelogy

Current research in Palaeolithic Archaeology reflecting
emerging issues.
Prerequisite:ANT 200YI or ANT 203YI

## ANT420HI Archaeology of Inequality

How social complexity is manifested in the archaeological record. Origins and evolution of prehistoric complex societies, from small-scale chiefdoms to large-scale states.
Prerequisite: ANT200YI,ARH305HI
Recommended preparation:ANT363YI

ANT42IHI | Royal Courts of the Ancient |
| :--- |
| New World |

This course examines the institution of the royal court in the
ancient New World as a nexus for negotiation of power and
assertion of cultural identity. Case studies concentrate on the
Maya;Aztec and Inca cultures provide important comparative
contexts. We also explore the integration of textual and
material evidence in investigating ancient cultures.
Prerequisite:ARH305HI
This is a Social Science course.
ocial Science course

## ANT425HI Language in <br> Anthropological Thought

How ideas about language fit into the overall views of humankind as expressed by selected anthropologists, linguists, sociologists, and philosophers.
Exclusion: ANT425YI
Prerequisite: ANT204YI/ ANT253HI

## ANT426HI Orientalism: Western Views of of Muslims and Jews <br> Language and imagery representing the "oriental" in the West. Emphasis on representations of the "Semites", the Islamic peoples of North Africa, the Middle East and South Asia, as well as the Jews from the mid-nineteenth to the mid-twentieth century. <br> Prerequisite: ANT323YI/329YI/any 300-level course in INI/VIC/ NMC/Jewish Studies

ANT427HI Language, Ideology, \& 26S Political Economy
The role of language in the reproduction and transformation of ideology and political economy. Readings include linguistic analyses of gender and class relations in local and global contexts, as well as seminal works in linguistics and other social sciences.
Prerequisite: ANT204YI/ANT253HI

ANT43 I HI Mortuary Practices in the | Archaeological Record |
| :--- |

Death is the only rite of passage that leaves frequent
archaeological traces, through burial and mortuary rituals. It
provides us with a rare opportunity to move beyond material
culture and look into the cognitive, ritual and ideological
aspects of a past human group, bringing archaeology closer
to addressing anthropological questions. As we learn how
to examine cultural identity, represented through burial
and ancestral ritual, and biological reality of demographic,
occupational and pathological conditions, the course will
provide students with an understanding of the interpretative
potential of the human skeleton as a central feature of any

Death is the only rite of passage that leaves frequent archaeological traces, through burial and mortuary rituals. It provides us with a rare opportunity to move beyond materia aspects of a past human group bringing archaeology closer aspects of a past human group, bringing archaeology closer to examine cultural identity, represented through burial and ancestral ritual, and biological reality of demographic, occupational and pathological conditions, the course will potential of the human skeleton as a central feature of any
burial. The course is of interest to archaeological and biological anthropology students but is not limited to these two fields.. Prerequisite: Any 300-level course from Group A or C This is a Social Science or Science course.

## ANT440HI Society in Transition

An exploration of the conceptual tools used to understand reflexive modernity. Focus on the articulated web of global and local networks that produce simultaneously inequalities and potentially new identities and collectivities.
Exclusion: ANT440YI
Prerequisite:ANT204YI, at least one area course in anthropology

ANT442HI Anthropology and New
The relationship between technology and culture through a focus on reproductive, genetic and communications technologies.
Prerequisite:ANT 204YI, a 300 level, or above, Social Cultural Anthropology course

ANT443HI Anthropology of Travel \& Tourism 26L
Since ancient times, travel has been central to human interaction. The course explores theories about travel, translation, and tourism (and anthropology's relationship to all of these) and helps students critically examine a particular travel encounter. Main topics include cultural representation, authenticity, economic development, social inequality, identity, gender, ethnicity, nationality, postcolonialism, and globalization. Prerequisite: ANT204Y plus any 300-level course in Social-

Cultural or Linguistic Anthropology
This is a Social Science course.

## ANT444YI Research Methods in Social \& Linguistic Anthropology

Social and linguistic anthropological approaches to research in urban settings. Methodology, field techniques and research ethics. Students must formulate and complete a field research project.
Prerequisite: ANT204YI
ANT445HI Science as Culture and Practice
This course examines science and technology from an anthropological perspective. Throughout the course, in addition to introducing major concepts of science studies, we will examine multiple "concrete things," like computers as cultural artifacts, connected to wider social, political, economic, ideological, and cultural contexts.
Recommended Preparation: ANT 204Y।

## ANT446HI Anthropology of Western Europe: Issues and Ideas (formerly ANT 446YI)

Europe is a, landmass and a (transnational) collection of people - in both cases rather vaguely defined. Europe is also an idea, one often closely associated with "western civilization". So if anthropology is a combination of the ethnographic study of a place and its people, and also the critical study of a culture, then certainly both of these perspectives could usefully be applied to a course on Europe. Both of these dimensions are also of pressing concern to within Europe today.
Exclusion: ANT 446YI
Prerequisite: ANT204YI

## ANT447HI Aboriginal Australia

 26SThe course investigates the nature and significance, in history and the history of ideas, of the ways of life of the Australian Aborigines. The emphasis is on the influence of religion and music on the economic, political and social organization of the people.
Prerequisite:ANT 367YI/permission of the instructor

## ANT448HI Ethnicity \& Nationalism

An examination of theories and critique of ethnicity and nationalism from an anthropological perspective. The problem of the cultural context of ethnicity. Case studies.
Prerequisite: ANT204YI, one 300-level course in Social Cultural
or Linguistic Anthropology
ANT450HI Anthropological Approaches to 26S Environmentalism
Comparative examination of human ecological adaptations, livelihood strategies, spiritual and cultural values and their relation to environmental maintenance or degradation. Explores contemporary "grass roots" environmental movements and ideologies.
Prerequisite: ANT204YI, a 300-level or above Social Cultural Anthropology course
ANT452HI Anthropology \& Human Rights 26S
The concept of human rights in its universal claims rises fundamental questions for anthropology as it challenges a central value of the discipline: cultural relativism. Students are asked to consider epistemological and theoretical questions and case studies (e.g. claims of rights by ethnic collectivities).
Prerequisite:ANT204YI, one 300 level social-cultural/linguistic

## ANT course

ANT453HI Sub-Arctic Issues
Major issues in the history and development of Sub-Arctic Native people of Canada: Indian social structure, European/ Native interaction, land tenure, politics and religion.
Prerequisite: ANT204YI, 365HI

## ANT454HI The Anthropology of Music \& Art 26 S (formerly ANT360YI)

This course investigates the connection between religion, music and society from an anthropological point of view. The primary focus is on societies where music is seen by people as the principal vehicle for religious expression. Examination of religions and musics of Australian aboriginal, Melanesian, Native North America, African societies, others.
Prerequisite:ANT367YI
Exclusion: ANT360YI

## ANT455Y I International Health: Anthropological Perspectives

This course examines international health, focusing on the health problems of "third world" populations and the contributions and critiques provided by medical anthropology. Topics include: the political ecology of infectious disease, disease eradication campaigns, population policy and reproductive health, the AIDS pandemic, and the quest for culturally appropriate interventions.

## Prerequisite: ANT348YIY

ANT456HI Sexuality, Culture and Movement 26L This course explores, first, how and where forms of desire and sexual practice have become sites of anthropological inquiry and exemplars of particular cultural logics. Tracing, then, the "transnational turn" in the anthropology of sexuality, the course engages important debates about culture, locality,
and globalization. By focusing on the transnational movement of desires, practices, and pleasures through activisms, mass media, and tourism, the course asks how sex is global and how globalization is thoroughly sexed. Course material will stress, but not be limited to, forms of same-sex or otherwise "queer" sexualities.
Prerequisite: ANT 204Y plus any 300-level course in Social-
Cultural or Linguistic Anthropology
This is a Social Science course.
ANT458HI Anthropology of Crime, Law and Order
Theoretical and methodological approaches to the anthropological study of crime, law, and order with case studies from around the world.
Prerequisite:ANT204YI and a 300 level Social Cultural ANT Course.
ANT459HI Maps and Places 26L
A study of the cross-cultural meaning of two-dimensional representations of space and the socio-political relevance of place.

## Prerequisite: ANT204YI

## ANT 460HI Global Perspectives on

This fourth-year seminar examines how female gender shapes health and illness. Using case studies of sexual health, fertility and its management, substance use/abuse, mental health, and occupational/labor health risks, the course investigates the material, political, and socio-cultural factors that can put women at risk for a range of illness conditions.
Prerequisite: ANT 343YI/348YI

## ANT46IYI The History of Anthropology and the Limits of Theory

History and development of theories which underlie contemporary anthropology.
Prerequisite:ANT204YI

## ANT 462HI Anthropology and the Intimate:

 Studies in Affect and ActionThis course examines how anthropologists have studied the way that people hope, imagine, love, and despise. Ethnography of "the intimate" realms of affect raises important questions about knowledge production and methodology as well as offering insight into how people come to act upon the world and what the human consequences of such action are. The course will also examine how "the intimate" is socially produced and harnessed in the service of politics and culture.
Topics will include grief and its lack; dreams and activism; love and social change; memory and imperialism; sexuality and care; and violence and hope.
Prerequisite: ANT 204Y plus any 300-level course in Social-
Cultural or Linguistic Anthropology
ANT47IHI Human Nutritional Ecology 26S
Approaches from various sub-fields within anthropology are combined with others from zoology, ecology, community nutrition, and global health to enrich our understanding of the evolved nutritional needs of humans across time and space and their changing relationship to culture. Through intensive reading and discussion of a wide range of recent primary research articles, we explore ways in which the study of foodways, food systems, and human ecology can help us design better strategies for improving health in different settings.
Prerequisite:ANT 203YI/204YI
This is a Social Science or Science course.

## Anthropology

## ANT480HI Special Topics in Anthropological Research

Unique opportunity to explore a particular anthropological topic in-depth. Topics vary from year to year.
Prerequisite: A 200+ level ANT course

## ARH482HI Special Topics in Archaeology

See Archaeology
Unique opportunity to explore a particular archaeological topic indepth. Topics vary from year to year.
Prerequisite:A 200+ level ANT course

ANT483HI | Special Topics in Linguistic |
| :---: |
| Anthropology |

This course will focus on an advanced topic in Linguistic
Anthropology. Topic will vary from year- to-year.
Prerequisite:ANT204Y I/ANT253HI/300 Level course in Linguistic
and Semiotic anthropology

ANT497Y I/ Independent Research TBA

## 498HI/

499HI
Supervised independent research on a topic agreed on by the student and supervisor before enrolment in the course. Open in exceptional circumstances to advanced students with a strong background in Anthropology. Application for enrolment should be made to the Department in the preceding term. A maximum of one year of Independent Research courses is allowed per program. Prerequisite: Permission of Undergraduate Coordinator and Supervisor

## Anthropology Science Courses

See page 33 for Key to Course Descriptions.
ANT203YI Human Biology \& Evolution 52L, 26P
Introduction to Biological Anthropology, investigating various lines of evidence for human evolution including our primate relatives and an exploration of the relevance of human origins to contemporary human biology and variability.
Recommended preparation:ANTIOOYI/BIOI50YI
JPA305HI Introduction to Archaeometry 26L, I3P
Introduction to methods for remote sensing of buried
archaeological remains, dating, and analysis of ancient materials.
Application of methods and interpretation of results in
archaeological contexts. (Offered in alternate years) (Given by the Departments of Physics and Anthropology)
Exclusion: JPA300YI

## JPA3IOHI Physics and Archaeology 26L, I3P

Introduction to the principles behind archaeometric methods for remote sensing, dating, and analysis of archaeological materials, and interpretation of results. Offered in conjunction with JPA305HI.
(Offered in alternate years) (Given by the Departments of Physics and Anthropology)
Exclusion: JPA300YI
Prerequisite:Any Ist-year Physics course/permission of instructor Co-requisite: JPA305HI

## ANT326YI Human Evolutionary Anatomy 26L, 39P (formerly ANT 332YI)

A detailed examination of human musculo-skeletal anatomy from the comparative and evolutionary perspectives. Allometry, basic biomechanics, functional anatomy, and the structure and function of human mastication, the brain, the forelimb and bipedalism. Labs make use of the large collection of primate skeletal material and fossil human casts.

Exclusion: ANT332YI
Prerequisite: ANT203YI


#### Abstract

ANT330YI Paleoanthropology Field 26L, 78P School (Offered on an irregular basis) This course provides background in the practical and theoretical aspects of fieldwork in Paleoanthropology. Students are trained in the treatment and analysis of fossil vertebrates, plant macro- and micro-fossils and sediments. Excursions to paleoanthropological localities of Homo erectus and Homo sapiens, and excavation at a hominoid site. (Joint undergraduate-graduate) Prerequisite: ANT203YI


## ANT333YI Living Primate Adaptations 52L, 26P

A survey of living primates, this lab-oriented course describes and compares the diverse behavioural and anatomical adaptations that are characteristic to this order of mammals. The understanding of the biological diversity and evolutionary history of primates is important for further understanding of human adaptation and evolution.
Exclusion: ANT333HI
Prerequisite:ANT203YI
Recommended preparation:ANT326YI, 334YI; BIOI50YI

## ANT334YI Human Skeletal Biology <br> 39L, 39P

Exploration of the development and maintenance of the human skeleton and dentition, with emphasis on application to archaeological, forensic and biomedical sciences.
Prerequisite:ANT203YI
JPA400YI Advanced Physics \& Archaeology I56P
An introduction to research in archaeometry and archaeological prospecting. Possible projects: magnetic and resistivity surveying of archaeological sites; thermoluminescence measurements; neutron activation analysis and x-ray fluorescence analysis of artifacts; radiocarbon dating by atom counting; lead isotope analysis. (Offered in alternate years) (Given by the Departments of Physics and Anthropology)
Prerequisite: JPA $300 \mathrm{YI} /(\mathrm{JPA} 305 \mathrm{HI}, 310 \mathrm{HI})$

## ANT4I5YI Laboratory in Faunal

52S, 52P Archaeo-Osteology
Examination and interpretation of faunal material from archaeological sites as evidence for culture.
Prerequisite: ARH3I2YI

## ANT429HI Palaeoanthropology 26L, 52P (formerly ANT429YI)

Method and theory in paleoanthropology focusing on reconstructions of human evolutionary history and the behaviour of fossil hominids. Identification and analysis of fossil human material and hominid systematics. Includes an extensive lab component using a large collection of primate skeletons and fossil human casts.
Exclusion: ANT429YI, ANT 332 Y5 (University of Toronto
Mississauga), ANTCI7H3 (Scarb)
Prerequisite: ANT203YI,ANT326YI
ANT430HI Primate Conservation Biology 26L
The focus of this course is on the science of primate conservation biology in an anthropological context. Topics will include primate biodiversity and biogeography, human impacts, and conservation strategies/policies. The effects of cultural and political considerations on primate conservation will also be discussed. Prerequisite: ANT203YI

## ANT43IHI Mortuary Practices in the Archaeological Record

Death is the only rite of passage that leaves frequent archaeological traces, through burial and mortuary rituals. It provides us with a rare opportunity to move beyond material culture and look into the cognitive, ritual and ideological aspects of a past human group, bringing archaeology closer to addressing anthropological questions. As we learn how to examine cultural identity, represented through burial and ancestral ritual, and biological reality of demographic, occupational and pathological conditions, the course will provide students with an understanding of the interpretative potential of the human skeleton as a central feature of any burial. The course is of interest to archaeological and biological anthropology students but is not limited to these two fields..
Prerequisite: Any 300-level course from Group A or C This is a Social Science or Science course.

ANT434HI | Health, Diet \& Disease 26L, I3P |
| :--- |
| in the Past |

Advanced exploration of the life histories of past populations, through the application of palaeodietary analyses, palaeopathology and other appropriate research methods.
Prerequisite: ANT334YI
ANT436HI Primate Ecology \& Social Behavior 26L
This course will provide an overview of the ecology and social behavior of extant nonhuman primates. Topics will include socioecology, conservation biology, biogeography, aggression and affiliation, community ecology, communication, and socio-sexual behavior. There will also be extensive discussions of methods used in collecting data on primates in the field.
Prerequisite: ANT203YI

## ANT47IHI Human Nutritional Ecology 26S

Approaches from various sub-fields within anthropology are combined with others from zoology, ecology, community nutrition, and global health to enrich our understanding of the evolved nutritional needs of humans across time and space and their changing relationship to culture. Through intensive reading and discussion of a wide range of recent primary research articles, we explore ways in which the study of foodways, food systems, and human ecology can help us design better strategies for improving health in different settings.
Prerequisite: ANT 203YI/204YI
This is a Social Science or Science course.

## ANT48IHI Special Topics in Biological <br> Anthropology

Unique opportunity to explore in-depth a particular topic in
Biological Anthropology. Topics vary from year to year.
Prerequisite:A 200+ level ANT course

## Archaeology

The Archaeology Program focuses on the study of past human societies primarily through their material remains, or "material culture." Archaeologists explore the nature of and changes in past cultures around the world through survey, excavation and analyses of stone tools, pottery, bones, plant remains, architecture and other cultural residues. Some of the major research foci of archaeologists are the nature of hunter-gatherer technology and economy in the Pleistocene, the origins of agriculture, pastoralism, urbanism and politically complex states, the workings of ancient exchange systems and the development of class-based and gender-based political and economic inequalities in complex societies. Working archaeologists often specialize geographically, chronologically or thematically. Classical archaeologists, for example, specialize in the cultures of the ancient Greco-Roman world, while palaeoethnobotanists explore ways that botanical residues of ancient and prehistoric cultures can inform us about their economies and social systems. The specialist programs allow students to explore archaeology in a multidisciplinary setting.

Students in either specialist program should consult the program coordinator or faculty members in their intended areas of specialization for advice on the selection of courses. Those intending to go on to graduate studies in departments such as Fine Art History and Near and Middle Eastern Civilizations should pay particular attention to language requirements at the graduate level.

The Archaeology Specialist (Arts program) is designed for students in the Social Sciences or Humanities, who may be interested in such fields as prehistoric, Aegean, Classical, historical and Near and Middle Eastern archaeology. See details below. Students interested in pursuing graduate studies should combine it with study of the ancient and modern languages relevant to their primary area of interest.

The Prehistoric Archaeology Major (Arts program) is designed for students whose interests are in prehistoric archaeology, and who want to combine it with a Major in a field not traditionally associated with archaeology. See details below.

The Archaeological Science Specialist (Science program) allows students with science backgrounds to obtain training in areas of study related to archaeometry, geoarchaeology, osteoarchaeology, paleoethnobotany, and other archaeologica sciences. See details below.

The Archaeological Science Major (Science program) allows students doing a Major in the mathematical or life sciences to combine that Major with training in archaeological sciences. See details below.

Students are encouraged to seek counselling and information about this program from the Anthropology Undergraduate Administrator/Student Counsellor, Anthropology (416-9786414).

## Archaeology Programs

I. Enrolment in the Specialist, Major and Minor Programs is limited to students with a cumulative GPA of 2.5 or above. Students may enroll at the end of First Year, or at any later time if they have a cumulative GPA of 2.5 or above
2. Only ONE Archaeology Program may be selected.

## Archaeology (Arts program)

## Specialist Program:

(I0.5 full courses or equivalent, including at least one $400+$ series course)

First Year:
I. ANT 200YI
2. One of:ANT IOOYI/CLA I6OHI/GGR IOOYI/NMC IOIYI. If CLAI 60 HI is taken, an additional half course from Archaeology group A, B or C is required.
Second Year:
I. ARH 305 HI
2. GGR 270HI* ( or a half-course from STA $220 \mathrm{HI}, 22 \mathrm{IHI}$, $247 \mathrm{HI}, 248 \mathrm{HI}, 250 \mathrm{HI}, 255 \mathrm{HI}, 257 \mathrm{HI}, 26 \mathrm{HI}$, ANT C35H3**)
3. Two full course equivalents from ANT 203YI/204YI; CLA $230 \mathrm{HI}, 23 \mathrm{IHI} ; \mathrm{FAH} 206 \mathrm{HI}, 207 \mathrm{HI} ; \mathrm{NMC} 260 \mathrm{Y}$ I

NOTES:

* Geography pre- or co-requisites waived for Anthropology students.
** To be taken at the Scarborough Campus
Third and Fourth Years:
I. One full course equivalent from Group A

2. 2.5 courses from Groups B-C
3. Field Requirement:ANT 3IIYI/ARH 36IHI/NMC 26IYI. If ARH 36 IHI is taken, an additional ANT half-credit is required.
4. Lab Requirement:ARH 3 I $2 \mathrm{YI} / \mathrm{JPA}(305 \mathrm{HI}, 3 \mathrm{IOHI})$

Prehistoric Archaeology (Arts program)

## Major Program:

(6 full courses or equivalent, including at least two $300+$ series courses)

First Year:
ANT I00YI
Second Year:
ANT 200Y
Third and Fourth Years:
I. ARH 305 HI
2. 2.5 courses from the Anthropology Group A
3. Field and Lab Requirement: I. 0 course equivalent from: ANT 3IIYI/ARH 36IHI/NMC 26IYI/ARH 3I2YI/JPA $305 \mathrm{HI}, 3 \mathrm{IOHI}$

## Archaeological Science (Science program)

## Specialist Program:

(12 full courses or equivalent, including at least one 400+series course)
First Year:
I. ANT 200YI
2. One of:ANT $100 \mathrm{Y} I / G G R 100 \mathrm{YI} / \mathrm{GLG}(102 \mathrm{HI}, 110 \mathrm{HI})$
3. One of: BIO I5OYI/CHM (I38HI, I39HI)/MAT I35YI/I37YI/I57YI/PHY IIOYI/I38YI/I40YI
Second Year:
I. ARH 305HI
2. ENV 236YI
3. One full course equivalent from: $\mathrm{BIO} 25 \mathrm{IYI} / E E B 202 \mathrm{HI}$; BIO250YI/EEB2I4HI/263YI; CHM 2I7HI; GGR 20IHI, $205 \mathrm{HI} / 270 \mathrm{HI} / 272 \mathrm{HI}, 273 \mathrm{HI}$; GLG $206 \mathrm{HI} / 207 \mathrm{HI} / 216 \mathrm{HI} /$ 217 HI ;

Third and Fourth Years:
I. One course from Group A
2. One course from Group $C$
3. 2.5 courses from Group B
4. Field Requirement:ANT 3IIYI/ARH $36 I \mathrm{HI} / \mathrm{NMC} 26 I \mathrm{YI}$. If ARH 36 IHI is taken, an additional ANT half-credit is required.
5. Lab Requirement:ARH $312 \mathrm{YI} / J P A(305 \mathrm{HI}, 3 \mathrm{IOHI})$

Major Program:
(7 full courses or equivalent, including at least two $300+$ series courses)

First Year:
I. ANT 100 Y I
2. At least one of: GGR I00YI; MAT I35YI/I37YI/I57YI; BIO I50YI; CHM (I38HI, I39HI); PHY IIOYI/I38YI/ I40YI
Second Year:
ANT 200YI
Third and Fourth Years:
I. ARH 305 HI
2. One $300+$ series course from Groups $A$ or $C$
3. I.5 courses from Group B
4. Field and Lab Requirement: I. 0 course equivalent from: ANT 3IIYI/ARH $361 \mathrm{HI} / \mathrm{NMC} 26$ IYI or ARH $312 \mathrm{YI} / \mathrm{JPA}$ ( $305 \mathrm{HI}, 3 \mathrm{IOHI}$ )

## Archaeology Groups

Group A: Advanced Theory
ANT $409 \mathrm{HI}, 4 \mathrm{I} 0 \mathrm{HI}, 4 \mathrm{II} \mathrm{HI}, 4 \mathrm{I} 7 \mathrm{HI}, 420 \mathrm{HI} ; \mathrm{HIS} 425 \mathrm{HI}$

## Group B: Method and Interpretation

I. Archaeometry: CHM $3 \mathrm{I} 7 \mathrm{HI}, 4 \mathrm{I} 4 \mathrm{HI}, 4 \mathrm{I} 6 \mathrm{HI}, 4 \mathrm{I} 8 \mathrm{YI}$; ENV 3 I 5 HI ; GGR 337HI; JPA 400YI; NMC 369YI
2. Ceramic and Lithic Analysis:ANT 406HI; NMC 369YI, $462 \mathrm{YI}, 465 \mathrm{HI}, 466 \mathrm{HI}, 469 \mathrm{YI}$
3. Geoarchaeology:ANT 409 HI ; ENV 3 I 5 HI ; GGR 30 IHI , $302 \mathrm{HI}, 307 \mathrm{HI}, 337 \mathrm{HI}, 373 \mathrm{HI}, 390 \mathrm{HI}, 4 \mathrm{I} 3 \mathrm{HI}$; GLG 340 HI , 360 HI
4. Osteoarchaeology and Zooarchaeology:ANT 326YI, $334 \mathrm{YI}, 4 \mathrm{I} 5 \mathrm{YI}, 429 \mathrm{HI}, 434 \mathrm{HI}$; EEB 323HI, 324HI
5. Paleoethnobotany: EEB $330 \mathrm{HI}, 337 \mathrm{HI}, 340 \mathrm{HI} ; \mathrm{GGR} 302 \mathrm{HI}$, $305 \mathrm{HI}, 3 \mathrm{IOHI}, 33 \mathrm{IHI}, 390 \mathrm{HI} ; \mathrm{HIS} 3 \mathrm{I} 8 \mathrm{Y}$

## Group C: Area Courses

I. Classical and Aegean Archaeology: CLA $230 \mathrm{HI}, 23 \mathrm{IHI}$, $232 \mathrm{HI}, 233 \mathrm{HI}, 362 \mathrm{HI}, 389 \mathrm{HI}$; FAH $206 \mathrm{HI}, 207 \mathrm{HI}, 300 \mathrm{HI}$, $304 \mathrm{HI}, 403 \mathrm{HI}$
2. Egyptian Archaeology: JAL 328 HI ; NMC $343 \mathrm{HI}, 344 \mathrm{HI}$, $362 \mathrm{YI}, 382 \mathrm{YI}, 46 \mathrm{YI}, 467 \mathrm{HI}, 468 \mathrm{HI}$
3. European and Celtic Archaeology: HIS 322YI; SMC 344YI, 345YI
4. Historical Archaeology:ANT $4 \mathrm{I} 2 \mathrm{HI}, \mathrm{GGR} 336 \mathrm{HI}, 366 \mathrm{HI}$, 446 HI ; HIS 456YI
5. Islamic Archaeology: NMC $348 \mathrm{HI}, 349 \mathrm{HI}, 366 \mathrm{YI}, 374 \mathrm{HI}$, $376 \mathrm{HI}, 393 \mathrm{HI}, 464 \mathrm{HI}$
6. Near Eastern Archaeology: JAL 328HI; NMC 346HI, $347 \mathrm{HI}, 360 \mathrm{HI}, 36 \mathrm{IHI}, 363 \mathrm{HI}, 364 \mathrm{HI}, 370 \mathrm{YI}, 46 \mathrm{YI}$, 466 HI
7. North American Prehistory:ANT $315 \mathrm{HI}, 316 \mathrm{H}, 3 \mathrm{I} 7 \mathrm{H}$, $3 \mathrm{I} 9 \mathrm{YI}, 365 \mathrm{HI}, 42 \mathrm{IH}$
8. Old World Prehistory:ANT 4I9HI;ARH 360YI; GGR 310 HI

## Archaeology Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), ARH courses are classified as Social Science courses

ARH305HI Archaeological Interpretation 26L
Transforming archaeological results into statements about people and their life ways. Covers basic archaeological theory, including research design, sampling, stratigraphy, seriation, formation and testing or evaluation of hypotheses, regional analyses. Introduces some of the major schools of archaeological theory, including New Archaeology and Post-
Processual Archaeology.
Prerequisite:ANT200YI
This is a Social Science course
ARH3I2YI Archaeological Laboratory 26L, 52P Techniques for making archaeological data meaningful after excavation or survey. Archaeological measurements, compilation of data, database design, archaeological systematics, and sampling theory in the context of lithics, pottery, floral, faunal and other archaeological remains.
Prerequisite: ANT200YI, a half statistics course (e.g.
GGR270HI*, STA $220 \mathrm{HI}, 22 \mathrm{IHI}, 250 \mathrm{HI}, 257 \mathrm{HI}, 26 \mathrm{HI}$,
ANTC35H3**.

## Note:

*Geography pre- or co-requisites waived for Anthropology and Archaeology students;
** to be taken at the Scarborough Campus
This is a Social Science course

## ARH360YI Prehistory of the Near East

52L
From earliest times through the rise of complex hunter-
gatherers, and the food producing revolution to politically complex societies in Southwest Asia.
Prerequisite:ANT200YI/NMC260YI
This is a Social Science course
ARH36IHI Field Archaeology TBA
Opportunity for students participating in non-degree credit archaeological digs to submit reports, field notes and term papers for degree credit.
Prerequisite: Permission of Undergraduate Co-ordinator and Supervisor
ARH398H0/ Independent Experiential Study Project

## 399Y0

An instructor-supervised group project in an off-campus setting. See page 47 for details.
ARH482HI Special Topics in Archaeology 26S
Unique opportunity to explore a particular archaeological topic in-depth. Topics vary from year to year.
Prerequisite: A 200+ level ANT course

## Architectural Studies

## A Collaborative Program of the Faculty of Arts \& Science and the Faculty of Architecture, Landscape, and Design

## Faculty

Program Director and Assistant Professor<br>A. Payne, BA, MA, PhD<br>Professors Emeriti<br>C. Corneil, B Arch<br>A. Eardley, AA Dip (Hons), MA, M Arch<br>A. Elken, Dipl Ing Arch<br>D. H. Lee, B Arch, M Sc, MBA<br>P. Prangnell, AA Dipl, M Arch<br>P. Sandori, Dipl Ing Arch<br>J.A. Stinson, Dipl Arch (Hon), MA<br>B. L. van Ginkel, B Arch, MCP<br>\section*{Professor}<br>G. Baird, B Arch, AM (Hon)<br>L.W. Richards, B Arch, M Arch<br>B.W. Sampson, B Arch

## Associate Professors

R. el-Khoury, BFA, B Arch, M Arch, MScAS, PhD
S. T. Fong, B Arch, M Arch
T. Kesik, MA Sc, Ph D
R. Levit, BA, M Arch
D. Lieberman, BFA(Cal Arts, AA Diploma (London)
A.T. Liu, BA, M Arch
P. Petricone, B Arch, M Arch
B. S. Shim, BES, B Arch
J. Shnier, BES, B Arch

## Assistant Professors

T. Bessai, B Arch, M Arch
A. Blackwell, BES, B Arch, MUD
M.L. Lobsinger, BA, BES, B Arch, M Des
P. Scrivano, PhD
S. Williamson, B Sc, M Arch

* For additional faculty listings please see Faculty of Architecture, Landscape, and Design Calendar

Architecture is both a profession and a discipline of study, offering a broad variety of career opportunities. As a profession it plays a pivotal role in the production of the built environment, bridging the technical and social, practical and theoretical. It is a cultural and artistic practice that is critically engaged with the forces of urbanization and technological change, the challenges of environmental sustainability, and the struggle for cultural expression. It involves the design, production, and organization of material culture from the scale of domestic objects to the scale of the metropolitan region. As such, studies in architecture interact with numerous related disciplines in the social sciences and humanities, as well as engineering, technology, and media. These studies may lead to professional graduate programs in architecture, landscape architecture, planning, and urban design,
as well as careers in related design disciplines, the arts, history, business, journalism, and public policy.

The Architectural Studies programs provide Major degree options for students wishing to study architecture as part of a liberal arts education. The program serves as an introduction to the discipline of architecture, focusing on the state of the art, current issues and emerging practices, all considered from critical, theoretical, and historical perspectives. Studio courses in design and visual communication provide opportunities to learn practical, formal, and analytical skills.

The Architectural Studies Major Programs (Hon. BA) contain concentrations in Architectural Design or in History, Theory, Criticism. The Architectural Design concentration is intended for students wishing an intensive exposure to architectural design within a broad liberal arts education; the History, Theory, Criticism concentration is intended for students wishing a broad interdisciplinary education in architectural studies but not wishing to pursue design. Introductory courses begin at the first-year level and lead into a sequence of courses in architectural design and representation, history, theory, and technology. Emphasis is placed on advanced theory and interdisciplinarity, since contemporary architecture is intimately tied to knowledge and practice in urbanism, environmentalism, literature, media, cultural theory, art, science and technology, as well as philosophy, economics, and political science. This program could usefully be combined with a major in another discipline, such as fine art, urban studies, or computer science.

Graduates who have completed the Architectural Studies Major program and have an Honours B.A. degree may apply to graduate professional programs in architecture or landscape architecture. For further information regarding the BA Architectural Studies program, contact: enquiry.ald@utoronto. ca.

Students who are interested in pursuing graduate professional studies in architecture or landscape architecture and wish to apply to the Faculty's Master of Architecture or Landscape Architecture programs are advised that for the Master of Architecture the following specific courses are required: secondary school calculus (OAC Calculus, or MCB4U Advanced Functions and Introductory Calculus, Grade I2, University Preparation, or equivalent); secondary school physics (OAC Physics, SPH4U Physics, Grade 12, University Preparation, or equivalent); and, a university level half-credit course in architectural history. For the Master of Landscape Architecture the following specific courses at the undergraduate level are highly recommended: biology/ecology, geography, English, and history. For further information regarding admission to these programs, visit www.ald.utoronto.ca or contact the Faculty of Architecture, Landscape, and Design at 416-978-5038. The Faculty sponsors a variety of lectures, exhibitions and other special events for members of the architectural community and the general public.

## Architectural Studies

## Architectural Studies Programs

NOTE:The Architectural Studies Specialist Program has been discontinued effective the 2006/07 academic year. The Specialist option will not be available to incoming students when choosing a Major. The Program will however honour those Specialist students currently in the Program. Program requirement courses will be offered to ensure students graduate from the program. If you are in the Specialist Program and wish to complete your Program, please consult with the Program Office for further details.

## Architectural Studies (Arts program)

## Major programs:

(8 full courses or their equivalent, including 2.0 FCEs at the 300+series)
Enrolment in the Architectural Studies Major Programs is limited. Students must have completed 4.0 full courses or their equivalent, including ARC 13 IHI and ARC 132 HI . Minimum marks of at least $70 \%$ in both ARC I3IHI and ARC I 32 HI are required.The student's Cumulative Grade Point Average will also be considered. Achieving minimum levels above does not guarantee admission.

NOTE:The Major programs include the 4.0 Core FCEs below plus 4.0 FCEs from one of the Concentrations below. Students must check all required prerequisites and co-requisites for courses before registering.

## Core Courses for Architectural Studies programs (4.0 FCEs):

First Year:
I. Theory/Criticism:ARC I3IHI, I32HI

Second Year:
I. Design:ARC 213 HI
2. Visual:ARC 22 IHI
3. Theory/Criticism:ARC 23 IHI , and one of ARC 232 HI , $233 \mathrm{HI}, 234 \mathrm{HI}, 235 \mathrm{HI}, 236 \mathrm{HI}, 237 \mathrm{HI}, 238 \mathrm{HI}$ or 239 HI
4. History: FAH 270 HI (replaces FAH 28 IHI ), FAH 272 HI (replaces FAH 282HI)

Major with Concentration in Architectural Design (4.0 FCEs):
I. Design:ARC $313 \mathrm{HI}, 314 \mathrm{HI}$
2. Visual:ARC 32 IHI
3. History:
I. 0 FCE from:ARC $433 \mathrm{HI}, 437 \mathrm{HI}, 438 \mathrm{HI}$; FAH 206 HI ,
$207 \mathrm{HI}, 2 \mathrm{I} 5 \mathrm{HI}, 216 \mathrm{HI}, 230 \mathrm{HI}$ (formerly FAH 274 HI ),
23 IHI (formerly FAH 279 HI ), $246 \mathrm{HI}, 300 \mathrm{HI}, 309 \mathrm{HI}$,
$316 \mathrm{HI}, 328 \mathrm{HI}$ (formerly FAH 369 HI ), $330 \mathrm{HI}, 362 \mathrm{HI}$, $364 \mathrm{HI}, 370 \mathrm{HI}$ (formerly FAH 324 HI ), 37 IHI (formerly FAH 355 HI ), $372 \mathrm{HI}, 373 \mathrm{HI}, 374 \mathrm{HI}$ (formerly FAH 382 HI ), $375 \mathrm{HI}, 376 \mathrm{HI}, 380 \mathrm{HI}, 39 \mathrm{YO}, 392 \mathrm{YO}, 393 \mathrm{YO}, 394 \mathrm{YO}, 395 \mathrm{YO}$, $396 \mathrm{YO}, 397 \mathrm{Y}, 400 \mathrm{HI}, 404 \mathrm{HI}, 405 \mathrm{HI}, 4 \mathrm{IOHI}, 4 \mathrm{I} 3 \mathrm{HI}$, 42 IHI (formerly FAH3I6), $442 \mathrm{HI}, 470 \mathrm{HI}, 47 \mathrm{IHI}, 477 \mathrm{HI}$ (formerly FAH 377 HI ); NMC $392 \mathrm{HI}, 393 \mathrm{HI}$
4. Technics: one of ARC $34 \mathrm{IHI} / 342 \mathrm{HI}$
5. I. 0 FCE from any of the courses in Groups A, B, C, D, E listed below. Students are encouraged to take additional courses from these Groups beyond the Major to fulfill degree requirements.

Major with Concentration in History, Theory, Criticism (4.0 FCEs):

I Theory/Criticism: one additional of ARC $232 \mathrm{HI}, 233 \mathrm{HI}$, $234 \mathrm{HI}, 235 \mathrm{HI}, 236 \mathrm{HI}, 237 \mathrm{HI}, 238 \mathrm{HI}, 239 \mathrm{HI}$
2. History:
$0.5 / \mathrm{I} .0$ FCE from: FAH $206 \mathrm{HI}, 207 \mathrm{HI}, 2 \mathrm{I} 5 \mathrm{HI}, 2 \mathrm{I} 6 \mathrm{HI}$, 230 HI (formerly FAH 274 HI ), 23 IHI (formerly FAH 279 HI ), 246 HI
I.0/I. 5 FCEs from:ARC $43 \mathrm{IHI}, 432 \mathrm{HI}, 433 \mathrm{HI}, 437 \mathrm{HI}$, $438 \mathrm{HI} ; F A H 300 \mathrm{HI}, 309 \mathrm{HI}, 3 \mathrm{I} 6 \mathrm{HI}, 328 \mathrm{HI}$ (formerly FAH 369 HI ), $330 \mathrm{HI}, 362 \mathrm{HI}, 364 \mathrm{HI}, 370 \mathrm{HI}$ (formerly FAH 324 HI ), 37 IHI (formerly FAH 355 HI ), $372 \mathrm{HI}, 373 \mathrm{HI}$, 374 HI (formerly FAH 382 HI ), $375 \mathrm{HI}, 376 \mathrm{HI}, 380 \mathrm{HI}$, $39 \mathrm{Y} 0,392 \mathrm{YO}, 393 \mathrm{YO}, 394 \mathrm{Y} 0,395 \mathrm{Y} 0,396 \mathrm{Y} 0,397 \mathrm{Y} 0,400 \mathrm{HI}$, $404 \mathrm{HI}, 405 \mathrm{HI}, 4 \mathrm{IOHI}, 4 \mathrm{I} 3 \mathrm{HI}, 42 \mathrm{IHI}$ (formerly FAH3I6), $442 \mathrm{HI}, 470 \mathrm{HI}, 47 \mathrm{IHI}, 477 \mathrm{HI}$ (formerly FAH 377 HI ); NMC 392HI, 393HI
3. I.5 FCEs from any of the courses in Groups A, B, C, D, E listed below. Students are encouraged to take additional courses from these Groups beyond the Major to fulfill degree requirements.

## Group A (Literary):

ENG 280 HI (formerly ENG 267 HI ), $285 \mathrm{HI}, 290 \mathrm{YI}, 389 \mathrm{YI}$
(formerly ENG 369YI); JEF I00YI;VIC I60YI, I6IYI, 20IYI, 2IOYI, 300YI, 3IOYI, 320YI, 4IOYI, 4IIHI/YI; PHL 285HI; WLD 300YI

## Group B (Urban):

ARC $33 \mathrm{IY} 0,433 \mathrm{HI}, 434 \mathrm{HI}, 435 \mathrm{HI}, 436 \mathrm{HI}$; FAH $39 \mathrm{IYO}, 392 \mathrm{YO}$,
$393 Y 0,394 Y 0,395 Y 0,396 Y 0,397 Y 0 ; G G R$ I $24 \mathrm{YI}, 220 \mathrm{YI}$,
$339 \mathrm{HI}, 357 \mathrm{HI}, 36 \mathrm{IHI}, 362 \mathrm{HI}, 363 \mathrm{HI}, 366 \mathrm{HI}$; HIS 304 HI ; INI
$235 \mathrm{YI}, 306 \mathrm{YI}, 307 \mathrm{YI}, 430 \mathrm{YI}, 446 \mathrm{HI} ;$ JGI 346 HI, JPF 455 YI
Group C (Environ):
ENV 200YI, 32 IYI; GGR I07YI; INI $332 \mathrm{HI}, 335 \mathrm{HI}, 446 \mathrm{HI} ; J G E$
22IYI; JIE 222YI
Group D (Sci/Tech):
HPS $20 \mathrm{IHI}, 202 \mathrm{HI}, 306 \mathrm{HI}, 430 \mathrm{HI}, 43 \mathrm{IHI}$
Group E (Media):
INI II5YI, $322 \mathrm{HI}, 325 \mathrm{YI}, 428 \mathrm{HI}$;VIC I $20 \mathrm{Y} \mathrm{I}, 220 \mathrm{YI}, 320 \mathrm{YI}$, $420 \mathrm{YI}, \mathrm{VIS} 120 \mathrm{HI}$

## Architectural Studies Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), ARC
courses are classified as Humanities courses
ARCI3IHI Introduction to Architecture 26L
A comprehensive introduction to the discipline, art and profession of architecture using case studies, both historical and contemporary, local and international.

ARCI32HI Contemporary Architecture 26L
An introductory survey of contemporary international architecture that examines how design is responding to technological change, environmental degradation, accelerating globalization of economy and media, and the politics of regional and cultural identity.

## Architectural Studies

## ARC2I3HI Architectural Design I

39P
Introduction to architectural design conducted in a studio setting using a series of design projects that develop students' understanding of and skills with fundamental aspects of designing buildings and their environments.
Prerequisite:ARC22IHI; Enrolment in an ARC program
ARC22IHI Architectural Representation I 39P
An introduction to architectural drawing and representation in various media
Prerequisite: Enrolment in an ARC program
ARC23IHI Architecture and Technology 26L
A selected survey of projects in the history of architecture exemplary for exploring the relationship between architecture and technological change.

## ARC232HI Architecture, Media and Communication

An introduction to the interrelationship between architectural theory and studies in media and communications during the twentieth century.

## ARC233HI Post-Colonial Studies in Architecture

An introduction to the emerging field of research in history and theory concerning the role of architecture, urban design and allied design areas in the relationship between western and non-western nations during and after the period of colonialism.

## ARC234HI Architecture \& Cultural Difference 26L

 An introduction to contemporary issues in architecture pertaining to cultural difference, the politics of cultural identity, and possible structures and strategies for heterogeneity.ARC235HI Architectural Criticism 26L
An introductory course in architectural criticism that reviews the writings of major critics, the history of criticism in architecture and the use of alternative critical perspectives.
ARC236HI Design and Cultural Transformation 26L A survey of the social, economic, technological and cultural factors that have been instrumental in transforming material culture since the Industrial Revolution.

## ARC237HI Topics in the History and <br> Theory of Landscape Design

An introduction to the history and theory of urban landscape design.

## ARC238HI Topics in Urban Design History 26L

 and TheoryAn introduction to projects and practices, theories and issues in contemporary urban design considered from a historical perspective and in the context of changing forces and paradigms or urbanization, technology, ecology and culture.
ARC239HI Introduction to Architectural Theory26L
An introduction to the history and current state of architectural theory.

## ARC3I3HI Architectural Design II

A second introduction to architectural design conducted in a studio setting using a series of design projects that develop students' understanding of and skills with fundamental aspects of designing buildings and their environments.
Prerequisite:ARC213HI; Enrolment in the Specialist program/
Major program with Concentration in Architectural Design Co-requisite: ARC32IHI

ARC3I4HI Architectural Design III 39P
A third introduction to architectural design conducted in a studio setting using a series of design projects that develop students' understanding of and skills with fundamental aspects of designing buildings and their environments.
Prerequisite: ARC3I3HI; Enrolment in the Specialist program/
Major program with Concentration in Architectural Design
ARC32IHI Architectural Representation II 39P
An introduction to the history, theory and present state of building technology in the context of architectural design. Prerequisite:ARC22IHI; Enrolment in the Specialist program/ Major program with Concentration in Architectural Design Co-requisite:ARC3I3HI

ARC33IY0 Studies in International 52L Architecture
For students in the International Summer Program.
Documentation and analysis of architecture and urbanism in the city where the programme is based. Topics may include building types, urban morphology and development, public spaces, urban precincts, and ways of life supported by them. Cities may vary each year.
Prerequisite:One half course in architectural history/theory
ARC34IHI Building Technology-Ecology I 26L
An introduction to building technology considered historically, in its relation to design theory, and its relation to the history and theory of technology.
Prerequisite: ARC23IHI; Enrolment in the Specialist program/
Major program with Concentration in Architectural Design
ARC342HI Building Technology-Ecology II 26L
A topic-based course in the history and theory of building science and structures.
Prerequisite:ARC23IHI; Enrolment in the Specialist program/
Major program with Concentration in Architectural Design
ARC398H0/ Independent Experiential Study Project 399Y0
An instructor-supervised group project in an off-campus setting. See page 47 for details.
ARC4I3HI Architectural Design IV 39P
A fourth introduction to architectural design conducted in a studio setting using a series of design projects that develop students' understanding of and skills with fundamental aspects of designing buildings and their environments.
Prerequisite:ARC3I4HI;ARC Specialist
ARC4I4HI Introduction to Graphic Design 26L An introduction to modern and contemporary graphic design, using a combination of lectures and workshops to trace the history of graphic design and examine applications in publications, presentations and architectural graphics.
Prerequisite:ARC3I4HI;ARC Specialist
ARC4I5HI Introduction to Furniture Design 26L
Comprised of lectures and workshop projects, this course is
a detailed exploration of the history, theory and practice of modern and contemporary furniture design.
Prerequisite:ARC3I4HI;ARC Specialist

## ARC4I6HI Introduction to Design for

 Performance \& Media Arts26L
An introduction to the theory and present state of set, stage, and environmental design for film, television, and performance. Prerequisite:ARC3I4HI;ARC Specialist

## Architectural Studies

## ARC4I7HI Word Image and Form

A course that examines selected sculptural, architectural and analytical projects that have combined text, image and three-dimensional form. Assignments will include studio based projects.
Prerequisite: ARC3I4HI;ARC Specialist

## ARC43IHI Historical Perspectives on Topics in Architecture

An introduction to selected projects, writings and issues in contemporary world architecture considered from an historical perspective and in the context of changing technologies, ecologies and cultural formations.
Prerequisite:ARC Specialist/Major program with Concentration in History,Theory, Criticism
ARC432HI Historical Perspectives on Topics in Architecture II
A second introduction to selected projects, writings and issues in contemporary world architecture considered from an historical perspective and in the context of changing technologies, ecologies and cultural formations.
Prerequisite:ARC Specialist/Major program with Concentration in History, Theory, Criticism

## ARC433HI Urban Design History, Theory Criticism

An introduction to selected projects and practices, theories and issues in contemporary urban design considered from an historical perspective and in the context of changing forces and paradigms of urbanization, technology, ecology and culture.
Prerequisite: Enrolment in an ARC Specialist program/Major program with Concentration in Architectural Design/Major program with Concentration in History, Theory, Criticism

## ARC434HI Urban Design History, Theory

 Criticism IIA selective survey of the interrelationships between theories and practices of landscape, ecology, and urbanism from the mideighteenth century to the late twentieth.
Prerequisite: Enrolment in the ARC Specialist program/Major program with Concentration in History, Theory, Criticism/
Major program with Concentration in Architectural Design
ARC435HI History/Theory of Urban 26L
Landscape Architecture Design I
Study of landscape architecture elements in gardens, public open space, parks, and urban development. Fosters an understanding of landscape architecture considering examples from ancient to modern times. Places historical positions in landscape architecture within a more contemporary context. Landscape architectural design from the standpoint of: a work of art, a manifestation of cultural ideologies, and an act of humans in "nature".
Prerequisite: Enrolment in the ARC Specialist program/Major program with Concentration in History, Theory, Criticism /Major program with Concentration in Architectural Design
ARC436HI History/Theory of 26L Contemporary Urban Landscape Design II
The nature and origin of theories and principles in contemporary landscape architecture through lectures, seminar discussions and workshops. Design problems and the historic relationship to landscape issues; alternative design methods and
characteristics of design motivations, constraints and expression in landscape as a media of practice.
Prerequisite: Enrolment in the ARC Specialist program/Major program with Concentration in Architectural Design/Major program with Concentration in History, Theory, Criticism
ARC437HI Housing Design:Theory \& Practice 26L
Urban housing forms and processes since 1800. Contemporary housing theories and policies in the context of world issues.
Design principles, criteria and practice investigated through case studies.
Prerequisite: Enrolment in the ARC Specialist program/Major program with Concentration in History, Theory, Criticism/
Major program with Concentration in Architectural Design

## ARC438HI Mies van der Rohe 26L

An in depth examination of the work and thought of GermanAmerican architect Ludwig Mies van der Rohe.
Prerequisite: FAH $270 \mathrm{HI} / 28 \mathrm{IHI} / 372 \mathrm{HI}, 272 \mathrm{HI} / 282 \mathrm{HI} / 373 \mathrm{HI}$; Enrolment in the ARC Specialist program/Major program with Concentration in History, Theory, Criticism/Major program with Concentration in Architectural Design

## ARC44IHI Architecture in its

## Technological-Ecological Context

An introduction to the technical conditions and ecological contexts of architectural production, including construction methods and materials, structural, mechanical and electrical systems, principles of building enclosure design and life safety provisions. This course introduces all areas of the technical curriculum that will be treated in subsequent courses. Prerequisite: Enrolment in the ARC Specialist program

ARC442HI | Building Science, Materials |
| :--- |
| and Construction I |

Principles of building envelope design. Properties of building
materials.
Prerequisite: Enrolment in the ARC Specialist program

Principles of building envelope design. Properties of building
Prerequisite: Enrolment in the ARC Specialist program

## Faculty

## Professors Emeriti

H.A. Brooks, MA, Ph D, D Eng
L.E. Eleen, MA, Ph D
W. McA. Johnson, MA, MFA, Ph D, FRSC
H.K. Lücke, Dr Phil
D.S. Richardson, MA, Ph D (U)
D. Rifat, DA
J.W. Shaw, MAT, Ph D, D Hum Lett, FSA, FRSC (T)
M.C. Shaw, MA, Ph D (S)
B. Welsh-Orcharov, MA, Ph D
F.E.Winter, Ph D

## Chair of the Department

M. Gotlieb, MA, M Phil, Ph D (T)

Associate Chair - History of Art
C. Anderson, MA, Ph D

## Associate Chair - Visual Studies

L. Steele, Dr. of Fine Arts

## Professors

M.A. Cheetham, MA, Ph D
D. Reid, MA (AGO)
P.L. Sohm, MA, Ph D (U)
L. Steele, Dr. of Fine Arts

Associate Professors
C. Anderson, MA, PhD
J. Caskey, MA, Ph D (UTM)
M. Gotlieb, MA, M Phil, Ph D (T)
L. Kaplan, MA, Ph D (UTM)
E.M. Kavaler, MA, Ph D
E.M.M. Legge, MA, Ph D (V)
E. Levy, MA, Ph D (UTM)
J. Massey
A. Nagel, DEUG, MA, Ph D
L. Safran, MA, Ph D
S. Schelle
K. Tomczak
J.T.Wollesen, Dr. phil. habil. (V)

Assistant Professors
A. S. Cohen MA, Ph D
B. C. Ewald, MA, Dr. Phil
E. Harney, MA, Ph D (UTSc)
S. Lloyd MFA
N. O'Laoghaire, MA, Ph D
E. Pien, MFA
J. Purtle, MA, M Phil, Ph D
J. Ricco, AM, Ph D (UTM)
P. Scrivano, MA, Ph D
A. Syme, MA, Ph D (UTM)
S. Wiitasalo

Senior Lecturer
G. Hawken, BA
D. Hlynsky (UTSc)
T. Mars (UTSc)

## Special Lecturers

E. Leesti, MA, Ph D

Royal Ontario Museum
D. Dewan, MA, Ph D
A. Gehmacher, MA, Ph D
A. Liivandi, MA, MLS
A. Palmer, MA, Ph D
S. Stock, MA, Ph D

Courses in the Department of Art are offered in two basic areas: lecture courses or seminars in the History of Fine Art (FAH) and practical studios or seminars in Visual Studies (VIS). Minor, Major and Specialist programs are offered in both the History of Art and Visual Studies.

The FAH curriculum covers the Bronze Age to the present in several global regions: the Mediterranean area, Europe and North America, and Asia. FAHIOIHI is an overview of the major periods and monuments in the history of art and architecture, and $\mathrm{FAHIO2HI}$ serves as a practical and critical introduction to the practice of art history and is an integral component of the curriculum; students are encouraged to take this class early in their progress toward an FAH degree. Half courses at the 200 level are more comprehensive surveys that thematically introduce the material from specific chronological periods, regional areas, or the history of archtiecture. Many of these courses, which are offered on a regular basis, serve as "gateway" preprequisites for courses at the 300 and 400 level; students are advised to check the prerequisites for each upper-level course carefully.
Visual Studies is the studio component of the Department of Art. Visual Studies Foundation courses are designed for Humanities and Social Science students who intend to seriously pursue Visual Studies upper level courses. There is a two-stage enrolment process. Humanities and Social Science students who have been accepted into a Visual Studies Program of Study may register for Visual Studies courses from mid-july until early August. First-year students and other upper-year students may apply for available spaces in late August.

Foundation courses: VIS 120 HI ,Visual Concepts, a lecturebased course that investigates a wide range of topics situated in Modernism and Post-Modernism. This course rigorously examines diverse art concepts in order to prepare students for interdisciplinary perspectives on art practice and critical theory in upper level courses.VIS I30HI,Visual Strategies, an H course taught throughout the Fall and Spring sessions, is an intensive interdisciplinary course that stresses the formulation and communication of visual ideas, primarily through a variety of media and must be taken in conjunction with VIS 120 HI ,Visual Concepts.

Visual Studies emphasizes a strong commitment to the social, cultural and theoretical issues embodied in contemporary art practice. Some Visual Studies courses are credits in other programs, for example, Women in Visual Art, and Performance in the Women's Studies program, Video for Artists in the Cinema Studies program and the Sexual Diversity program. The scope and variety of available courses will provide students with preparation for careers in teaching, museum and gallery work, conservation and complementary fields, though further professional training will normally be necessary.

Courses in the history of art (FAH) and in the practice of art (VIS) are useful to students in other departments or faculties; history, literature, music, and philosophy are likewise concerned with
systems of thought and imagery. Fundamental concepts in such disciplines are embodied or reflected in related works of art of the same general period and area. Students in architecture, geography, or city planning will find courses in the history of architecture of benefit. Those with a special interest in the practice of architecture will find studio courses of value.

At the same time, the Department directs the attention of its students to the wide range of offerings in other departments and urges them to acquire the broad cultural background essential to an understanding of the fine arts. Of special importance are familiarity with history, a knowledge of the various traditions of literature and mythology, and an acquaintance with philosophy. Courses in cultural, historical or urban geography may also be relevant in programs that include the history of architecture. It is imperative that students interested in pursuing an advanced degree in art history acquire the foreign languages necessary for such work. Although the choice of languages will be dependent on an individual's program of study, it is generally recommended that students learn German and at least one other European language. The Department website provides a list of courses in other departments that can be counted toward a fine art history degree.

In conjunction with Woodsworth College, the Department offers courses during the summer term at the University of Siena, Italy, and at other locations abroad. For information about these degreecredit courses, please consult the Department of Art Website or contact the Summer Abroad Program at Woodsworth College, II9 St. George Street (4I6-978-87I3).

The Fine Art Student Union (FASU) sponsors a variety of lectures and other activities for members of the departmental community.

Many courses in the Department, whether history or studio, are offered in alternate years only, or on a three-year cycle. The studio program requires no prerequisite at the secondary school level, but enrolment is limited in all studio courses. For more detailed information on courses and degree programs, consult the Department of Art web site and Undergraduate Handbook at www.art.utoronto.ca. Counselling is available, by appointment, from the Undergraduate Coordinators.

## Enquiries:

FAH: Ms. Ilse Wister, Undergaduate Secretary, Sidney Smith Hall, Room 6036 (416-978-7892)

VIS: George Hawken, Number I, Spadina Crescent, Room 226 (4I6-946-8I53)

## Art Programs

## History of Art (Arts program)

Students may enroll in the Major or Minor program in Fine Art History after completing at least four courses; there is no minimum GPA required. Students may enroll in the Specialist Program in Fine Art History after completing at least four courses, including four half FAH courses with a mark of at least $70 \%$ in each and must also have obtained a a cumulative GPA of at least 2.5.

## Specialist program:

## (II FCES)

At least nine FAH FCE's, and two FCE's in one or more languages (including at least one German, French, or Italian), fulfilling the
following distribution requirements:
First Year:
FAH 102HI
Higher Years:
I. At least one half course in each of Groups A, B, C, and D (see below for definitions).
2. One additional half course in Group A and Group B.
3. No more than 3.5 FCEs may be taken at the 200-level.
4. 3.5 FCEs at the $300+$ level
5. I FCE at the 400 level.
6. No more than I.5 FCEs at the 400 -level will be counted toward fulfilling program requirements.
7. No more than 10 FCEs of FAH courses may be taken in total.

Notes:
I. It is strongly recommended that students acquire a reading knowledge of German, French, or Italian by the end of the Third Year.
2. No more than 13 FAH and VIS FCEs may be taken in combination.
3. Approved courses in other programs may be substituted for up to two FAH FCEs. See Department website for details.

## Major program:

(6 FCEs)
At least six FAH FCEs fulfilling the following distribution requirements:
First Year:
FAH 102HI
Higher Years:
I. At least one half course in three of the four FAH Groups (see below for definitions).
2. Three FCEs at the 300+ level.
3. At least one half-course at the 400 -level.
4. No more than I.0 FCE at the 400 -level will be counted toward fulfilling program requirements.
5. No more than 7.5 FCEs of FAH courses may be taken in total.

## Notes:

I. No more than 13 FAH and VIS FCEs may be taken in combination; of these, no more than 7.5 may be FAH FCEs.
2. Approved courses in other programs may be substituted for up to one FAH FCE. See Department website for details.

## Minor program:

(4 FCEs)
At least four FAH courses fulfilling the following distribution requirements:
I. FAHIO2HI
2. At least one half course in two of the four FAH Groups (see below for definitions)
3. At least one FCE at the 300-level.
4. No more than 5 FCEs of FAH courses may be taken in total

## faH Course Groups

## Group A: Ancient, Medieval

FAH courses numbered 200-229, 300-329, 400-429

## Group B: Renaissance-Baroque, Modern-ContemporaryCanadian <br> FAH courses numbered 230-59, 330-59, 430-59

Group C: Asian
FAH courses numbered 260-69, 360-69, 460-69

## Group D: History of Architecture

FAH courses numbered 270-79, 370-79, 470-79, plus FAH300, 309, 328, 362, 364, 404, 42 I

## Note:

I. Certain courses, including FAHIOIHI , do not satisfy the requirement for any group, but do count toward any FAH degree program.
2. Students who have already taken FAHIOOYI are encouraged, but not required, to take $\mathrm{FAHIO2HI}$ for the fulfillment of degree requirements.
3. Courses used to satisfy one group requirement, e.g., FAH300, cannot be counted toward another group requirement.

## Visual Studies Program (Arts program)

Enrolment in the VIS program is limited. To apply to the program, students must have completed at least four full course equivalents including VIS 120 HI and VISI 30 HI ; must have a cumulative GPA of at least 2.80; and must have at least a B in each of VIS 120 HI and 130 HI . Achievement of these minimum marks does not guarantee enrolment in the program.

## Specialist program:

(Ten full courses or their equivalent, including four 300/400 VIS half courses, two of which must be VIS40IHI and VIS 402 HI , and two FAH full courses or their equivalent including $\mathrm{FAHIO2HI}$ and three other FAH half courses)
Requirements as follows: at least eight VIS and two FAH full courses or their equivalent including $\mathrm{FAHIO2HI}$ and three other FAH half courses

First Year:
VIS I20HI, FAH IO2HI and VIS I30HI
Higher Years:
I. I4 half-courses in VIS
2. Thesis Text/Critique VIS40IH; Thesis projectVIS402H

Notes:
I. A full 400 -series course is mandatory
2. Prerequisites for all courses beyond first year will be VIS 120 HI and VISI30HI
3. No more than I3 FAS/VIS and FAH full courses may be taken in combination

## Major program:

(Six Visual Studies full courses or their equivalent, including at least two 300+ half courses)
First Year:
VIS I20HI and VIS I30HI
Higher Years:
Ten half-courses in VIS
Notes:
No more than I3 FAH and FAS/VIS courses may be taken in combination

## Minor program:

(No more than four Visual Studies full courses or their equivalent, including at least one full 300 -level course or its equivalent.)
Note:
No more than 4 full courses may be taken in a Minor Subject POSt
I. VIS 120 HI and VIS 130 HI
2. Six half-courses in VIS

## Art History Courses

See page 33 for Key to Course Descriptions
For Distribution Requirement purposes (see page 27), all FAH and FAS/VIS courses are classified as HUMANITIES courses.

FAHIOIHI Monuments of Art History 26L
Consideration of the stylistic and contextual significance of representative monuments in the history of art.
Exclusion: FAHI00Y/FAHI05H5

## FAHI02HI The Practice of Art History 26L, I3T

 An investigation of the intellectual foundations of the discipline and an introduction to working methods in the study of art history.HUMI99HI/YI First Year Seminar 52 S
Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course; see page 47.

## Note

The recommended preparation for all 200 level courses is FAHIO2HI
FAH206HI Prehistoric Aegean and 26L, IIT East Mediterranean Art and Archaeology
An overview of the major monuments, artifacts, themes and problems in the study of the archaeology, art and architecture of the Aegean region and the east Mediterranean to l000BC. Exclusion: FAHIOIY5/203H5/204H5/205HI

## FAH207HI Greek and Roman Art and 26L, IIT

## Archaeology

An overview of the major monuments, artifacts, themes and problems in the study of the archaeology, art and architecture of the civilizations of Greece and Rome.
Exclusion: FAHIOIY5/203H5/204H5/205HI

## FAH2I5HI <br> Early Medieval Art and <br> 26L, IIT <br> Architecture

An overview of major monuments and themes in the art and architecture of Western Europe and the Byzantine East from the third until the eleventh century.
Exclusion: FAHI02Y5/26IHI/267H5/27IH5

## FAH2l6HI Later Medieval Art and 26L, IIT Architecture

An overview of major monuments and themes in the art and architecture of Western Europe and the Byzantine East from the eleventh until the fifteenth century.
Exclusion: FAHI02Y5/26IHI/267H5/27/H5

FAH230HI | Renaissance Art and |
| :--- |
| Architecture |
| (formerly FAH274HI) |

A selective survey of the major art centres and types of artistic
and architectural production in Italy and northern Europe, from
the early fifteenth century to the mid-sixteenth. Themes include
the relations--artistic, economic and ideological--between northern
and southern Europe during this period, the changing role of art in
religious life, the emergence of secular themes, and the legacies left
by Renaissance art to modern life and culture.
Exclusion: FAH $200 \mathrm{Y} 5 / 274 \mathrm{H} / 274 \mathrm{H} 5$ I

## FAH23IHI Baroque Art and Architecture 26L, IIT

 (formerly FAH279HI)Major forms of expression in the visual arts ca. 1600-ca. 1750 with particular attention to forms, techniques, theories, and patronage of the arts as well as biographies of artists in Italy, France, the Netherlands, Flanders, Germany and England. Exclusion: FAH200Y5/279HI/279H5

## FAH245HI Modernism and anti- 26L, IIT Modernism, c. 1750-1900

An introduction to the advent and development of art movements including Rococo and Neoclassicism; Romanticism and Revolution, Realism and the advent of Photography, Impressionism;Academic art; Post-Impressionism.
Exclusion: FAH280HI/287HI/287H5

FAH 246HI $\quad$| The Rise and Fall of the |
| :--- |
|  |
|  |
| Modernist Empire |
| c. 1900 to the Present |

An introduction to the consolidation of Modernist tendencies in Europe to the mid 20th century and to the many contemporary responses to these achievements. Individual artists, including Picasso, Matisse, Duchamp, and Matthew Barney are considered in their relationship to various art movements and the theories that supported them, including Expressionism; Abstraction and Constructivism; Dada and Surrealism; Neue Sachlichkeit; Abstract Expressionism; Pop; Conceptual Art; Earth Art; Feminist Art; Postmodernism; New Media Art.
Exclusion: FAH288HI/288H5/289HI/289H5

## FAH248HI Canadian Painting and Sculpture <br> (formerly FAH286HI)

An introductory survey of the history of painting and sculpture in Canada from the 17th to the 20th century. Exclusion: FAH286HI
FAH260HI The Artistic Landscape of 26L, IIT

## East Asia

(formerly FAH290HI)
An overview of major monuments and themes in the art and architecture of East Asia (China, Japan, Korea, Vietnam, Mongolia and Tibet), from the neolithic to the present.
Exclusion: FAH290HI

## FAH262HI Art and Visual Experience in Modern and Contemporary East Asia

An overview of major monuments and themes in the art and architecture of East Asia (China, Japan, Korea, Vietnam, Mongolia and Tibet) and its diaspora in the nineteenth and twentieth centuries.

## FAH270HI Architecture: Rituals and 26L, IIT

 MonumentsA survey of architecture from pre-history to the start of modernism, with attention given to the ways in which architecture shapes human experience.

## FAH272HI Modern Architecture from 26L, IIT 1750 to the Present

An introduction to the buildings, issues and ideas from Neoclassicism to the present.
Exclusion: FAH282HI
FAH299YI Research Opportunity Program
Credit course for supervised participation in faculty research project. See page 47 for details.

## Note

In addition to the prerequisites listed below, enrolment is also possible for each course with permission of instructor.

## FAH300HI Archaeology of the Greek World: 26L

 Cities and SanctuariesAn investigation of the major archaeological sites and landscapes of the ancient Greek world, c.750-I00BC.
Prerequisite: $\mathrm{FAH} 205 \mathrm{HI} / 207 \mathrm{HI}$

## FAH303HI Emergence of Greek Civilisation 26L

This course investigates the material culture, art and architecture of the Aegean civilizations from the Neolithic through to the building of the palaces of Crete around 2000BC. Prerequisite: FAH205HI/FAH207HI

FAH304HI Minoan and Mycenaean Art 26L and Archaeology
An investigation of the palace civilizations of Minoan Crete and Mycenaean Greece in the second millennium BC; their development, art, architecture, foreign connections, religion, and collapse, and role in the foundations of Classical Greece. Prerequisite: $\mathrm{FAH} 205 \mathrm{HI} / 206 \mathrm{HI}$

## FAH305HI Art and Archaeology of the 26L Roman Empire

The art, archaeology and architecture of the Roman empire outside Rome.
Prerequisite: $\mathrm{FAH} 205 \mathrm{HI} / 207 \mathrm{HI}$
Exclusion: FAH3O2HI
FAH309HI City of Rome
26L
The art, architecture and archaeology of the city of Rome to AD476.
Prerequisite: $\mathrm{FAH} 205 \mathrm{HI} / 207 \mathrm{HI}$
Exclusion: FAH302HI

## FAH3IOHI Looking at Greek Vases 26L

Approaches to and investigations of the extraordinary wealth of imagery on Greek vases from the 8th to 4 th centuries $B C$ and the evidence these provide for accessing ancient society in the Greek world.
Prerequisite: $\mathrm{FAH} 205 \mathrm{HI} / 207 \mathrm{HI}$
FAH3IIHI Understanding Greek Sculpture 26L Examination of the contexts in which Greek statuary was made, displayed and viewed, and its cultural significance.
Prerequisite: $\mathrm{FAH} 205 \mathrm{HI} / 207 \mathrm{HI}$
FAH3I2HI Art of the Hellenistic Age
26L (formerly FAH3I7HI)
Transformation in the visual arts, paintings, sculpture, and mosaics of the expanding Greek world c.400BC to c.I00BC; the response to Hellenization from the new artistic centres of Asia Minor and Italy.
Prerequisite: $\mathrm{FAH} 205 \mathrm{HI} / 207 \mathrm{HI}$
Exclusion: FAH3I7HI
FAH3I3HI Greek Myth in Ancient Art 26L
A general introduction to Greek mythology and its uses (and abuses) by the Greeks and Romans through the art of antiquity. Students will learn about gods and goddesses, heroes and heroines, their attributes and stories which constituted the subjects of (not only) ancient art.

FAH316HI Accessing the Sacred 26L
Pilgrimage, relics, and icons are among the vehicles for gaining access to God and the saints in the Middle Ages that are examined in this course.
Prerequisite: $\mathrm{FAH} 2 \mathrm{I} 5 \mathrm{HI} / 216 \mathrm{HI} / 26 \mathrm{IHI} / 343 \mathrm{H} 5$

## FAH3I8HI Monastic Art and Architecture 26L

An examination of the role played by monks and nuns in the creation and use of art and architecture in the Middle Ages. Prerequisite: $\mathrm{FAH} 2 \mathrm{I} 5 \mathrm{HI} / 216 \mathrm{HI} / 26 \mathrm{IHI} / 454 \mathrm{H} 5$

## FAH3I9HI Illuminated Manuscripts

26L
A focused survey of different types of manuscripts and their images from the origins of the book in Late Antiquity to the invention of printing.
Prerequisite: $\mathrm{FAH} 215 \mathrm{HI} / 216 \mathrm{HI} / 26 \mathrm{IHI}$
Recommended Preparation: SMC358H

## VIS32IHI Artists' Multiples I3L, 26P

Production of artists' multiples in various media is augmented with gallery and archive visits, screenings and artist talks. Historical and contemporary technologies for reproduction are examined. Prerequisite:VISI20HI,VISI30HI and one VIS 200-level course

## FAH325HI Church Decoration

The church was the primary locus of artistic elaboration in the Middle Ages. This course explores the wall paintings, mosaics, sculptures, textiles, and stained glass programs used to decorate churches throughout the medieval period.
Prerequisite: $\mathrm{FAH} 2 \mathrm{I} 5 \mathrm{HI} / 216 \mathrm{HI} / 26 \mathrm{IHI}$

## FAH326HI Art and Liturgy

Religious practices in the Middle Ages were expressed and enhanced with a variety of objects often made of precious materials. This course examines the forms and functions of these sacred implements.
Prerequisite: $\mathrm{FAH} 2 \mathrm{I} 5 \mathrm{HI} / 216 \mathrm{HI} / 26 \mathrm{IHI}$

## FAH327HI Secular Art and Architecture of the Middle Ages

A consideration of art and architecture made for the court, the aristocracy, and other patrons outside the realm of the Christian church.
Prerequisite: FAH2I5HI/2I6HI/26IHI/337H5

## FAH328HI Gothic Cathedral (formerly FAH369HI)

An examination of the Gothic cathedral from its origins in Paris in the II30's through its development and elaboration in France, England and Italy. This course also considers monumental decorations in painted glass, wall painting, tapestry and portal sculpture.
Prerequisite: $\mathrm{FAH} 2 \mathrm{I} 5 \mathrm{HI} / 216 \mathrm{HI} / 26 \mathrm{IHI} / 35 \mathrm{IH} 5$
Exclusion: FAH369HI

## FAH330HI German Art and Architecture in the Age of Dürer (formerly FAH306HI)

Albrecht Dürer and the painting and printmaking of his contemporaries. Consideration of the great Hall churches of Saxony and the altarpieces of Tilman Riemenschneider and his contemporaries; the status of the arts and attitudes towards Italian art, and the consequences of the Reformation for religious imagery. Prerequisite: $\mathrm{FAH} 230 \mathrm{HI} / 23 \mathrm{IHI} / 274 \mathrm{HI} / 279 \mathrm{HI}$
Exclusion: FAH306HI

## FAH33IHI

## Netherlandish Renaissance Art and Culture <br> (formerly FAH307HI)

Painting, sculpture and architecture of the Netherlands in the sixteenth century with reference to the arts in Italy, France, Germany and Spain. Consideration of Netherlandish art in the context of literature, religion, urban expansion, political and economic developments; and as a system of communication. Particular attention devoted to Hieronymus Bosch, Pieter Bruegel, the rise of secular art.
Prerequisite: $\mathrm{FAH} 230 \mathrm{HI} / 23 \mathrm{IHI} / 274 \mathrm{HI} / 279 \mathrm{HI}$
Exclusion: FAH307HI
FAH333HI

## The Altarpiece in Italy

 ca. 1400 - ca. 1600Focusing on developments in Venice, Florence and Rome during the Renaissance, this course examines altarpieces both as aesthetic objects and as expressions of the social, religious and political structures for which they were made.
Prerequisite: $\mathrm{FAH} 230 \mathrm{HI} / 23 \mathrm{IHI} / 274 \mathrm{HI} / 279 \mathrm{HI}$
FAH335HI The Art of Love in the Renaissance 26L Love is studied not only as a favorite theme of Renaissance art, but as the basis of some of its fundamental aesthetic claims. The question of love connects Renaissance art to important strains of philosophical thought and religious spirituality, as well as to some urgent realities of social life.
Prerequisite: $\mathrm{FAH} 230 \mathrm{HI} / 23 \mathrm{IHI} / 274 \mathrm{HI} / 279 \mathrm{HI}$
FAH339HI Art and Politics in Italy, 1480-I527 26L
A wide array of works in architecture, painting and sculpture studied in light of some of the most important political and social developments of the period: the French invasion of Italy, the rise of Savonarola and the fate of the Medici, the imperialization of the papacy under Julius II, and the Sack of Rome.
Prerequisite: $\mathrm{FAH} 230 \mathrm{HI} / 23 \mathrm{IHI} / 274 \mathrm{HI} / 279 \mathrm{HI}$
$\begin{array}{ll}\text { FAH340HI } & \begin{array}{l}\text { I7th-Century Art of the } \\ \text { Netherlands }\end{array}\end{array}$
(formerly FAH308HI)
Concentration on the major masters of Holland's Golden Age, ca. 1580-ca. I700. Particular attention is paid to genre painting and the notion of "Dutch realism." Consideration of art within its social and historical contexts.
Prerequisite: $\mathrm{FAH} 230 \mathrm{HI} / 23 \mathrm{IHI} / 274 \mathrm{HI} / 279 \mathrm{HI}$
Exclusion: FAH308HI

## FAH34IHI Venetian Renaissance Art and <br> 26L

## Architecture

Form and meaning, theory and practice of painting and architecture in Venice, ca. I450-ca. I600. Social, political and cultural contexts of making and viewing art, including works by Giorgione, Titian, Veronese, Tintoretto and Palladio.
Prerequisite: $\mathrm{FAH} 230 \mathrm{HI} / 23 \mathrm{IHI} / 274 \mathrm{HI} / 279 \mathrm{HI}$

## FAH342HI Mannerism 26L

The symptoms and causes of Mannerism, ca. 1520 to ca. 1600, as seen through shifting historical perspectives. The contested status of Mannerism opens questions about the relation of style and content, the uses of quotation and formulae in art, and the rhetorical functions of beauty in religious art.
Prerequisite: $\mathrm{FAH} 230 \mathrm{HI} / 23 \mathrm{IHI} / 274 \mathrm{HI} / 279 \mathrm{HI}$

## FAH344HI Rembrandt, Rubens and their Age 26L (formerly FAH277HI)

Introduction to the art of Rembrandt and Rubens in the context of Netherlandish painting of the seventeenth century. Lectures will treat the approaches of these two artists to biblical and
mythological subjects, landscape, portraiture, and their involvement in contemporary politics.
Exclusion: FAH277HI
Recommended preparation: FAHIOIH/IO2H

## FAH345HI The Romantic Movement in French Art (formerly FAH383HI)

This course explores the painting, sculpture, and graphic arts of the Romantic era in France, from about 1820 to 1850. Major emphasis on Gericault, Delacroix, and Ingres in their artistic, cultural, and political context. Key topics in Romanticism, including Orientalism and gender, are also explored.
Prerequisite: $\mathrm{FAH} 245 \mathrm{HI} / 246 \mathrm{HI} / 287 \mathrm{HI}$
Exclusion: FAH383HI

## FAH346HI Impressionism (formerly FAH378HI)

The origin and development of Impressionism in France and Europe, 1860-I886, in its social, political and intellectual context. Painting, graphics and sculpture by Monet, Renoir, Degas, Pissarro, Sisley, Cassatt and Morisot.
Prerequisite: $\mathrm{FAH} 245 \mathrm{HI} / 246 \mathrm{HI} / 287 \mathrm{HI}$
Exclusion: FAH378HI/378H5

## FAH347HI Cubism and Related Movements (formerly FAH384HI) <br> An investigation of the birth and development of Cubism, Futurism and Orphism in Europe and North America. <br> Prerequisite: $\mathrm{FAH} 245 \mathrm{HI} / 246 \mathrm{HI} / 287 \mathrm{HI} / 288 \mathrm{HI}$ <br> Exclusion: FAH384HI

## FAH348HI The Dada and Surrealist Tradition (formerly FAH385HI)

The origins and development of the Dada and Surrealist movements in early 20th-century Western art, and their lasting impact on art after World War II. Painting, sculpture, graphic arts, and the theoretical preoccupation which accompanied artistic production.
Prerequisite: $\mathrm{FAH} 245 \mathrm{HI} / 246 \mathrm{HI} / 288 \mathrm{HI} / 289 \mathrm{HI}$
Exclusion: FAH385HI/447H5

## FAH349HI Abstraction in Twentieth-Century Art (formerly FAH387HI)

The origins, development, and critical issues pertaining to abstract or non-figurative modes of art as manifested in painting, sculpture and other selected media in the 20th century. Movements include European abstract art before World War II as well as post-war developments.
Prerequisite: $\mathrm{FAHI} 02 \mathrm{HI} / 245 \mathrm{HI} / 246 \mathrm{HI} / 288 \mathrm{HI} / 289 \mathrm{HI} / 385 \mathrm{HI}$ Exclusion: FAH387HI

## FAH350HI Minimalism (formerly FAH389HI)

An investigation of the different definitions and issues of minimal art including seriality, materials, process, objecthood, chance, installation, reception, relations to music and film, and the influence of structuralism.
Prerequisite: $\mathrm{FAHI} 02 \mathrm{HI} / 245 \mathrm{HI} / 246 \mathrm{HI} / 288 \mathrm{HI} / 289 \mathrm{HI}$
Exclusion: FAH389HI

## FAH35IHI Theory in Art History (formerly FAH388HI)

26L
The role of Theory in the art of the modern period. The texts studied include works by the principal theoreticians and critics from the late I8th century to the present. Prerequisite: FAHIO2HI/245HI/246HI/287HI/288HI/289HI

## Exclusion: FAH388HI/388H5

## FAH354HI Recent and Contemporary 26L

Canadian Art
(formerly FAH386HI)
26L Survey of the visual arts in Canada from the 1960's to the present. A large and diverse range of media, practices, artists, and theoretical contexts will be examined. Emphasis is placed on work that can be seen in the original.
Prerequisite: $\mathrm{FAHI} 02 \mathrm{HI} / 245 \mathrm{HI} / 246 \mathrm{HI} / 248 \mathrm{HI} / 286 \mathrm{HI} / 288 \mathrm{HI} /$ 289 HI
Exclusion: FAH386HI
FAH36IHI Art and Ritual in East Asia 26L
Bronze vessels, tomb furnishings, and Buddhist images are among the images and objects explicitly manufactured for ritual use to be examined in this course.
Prerequisite: any 200 level FAH half course/any 100 or 200 level
EAS Society-Culture course
Recommended preparation: FAH260HI
FAH362HI Landscape and the Built
26L Environment in East Asia
In East Asia the idea of landscape significantly shaped artistic production. This course explores human representation of, and architectonic intervention in the landscape through media that include tombs, Buddhist caves, painting, gardening, and architecture.
Prerequisite: any 200 level FAH half course/any 100 or 200 level
EAS Society-Culture course
Recommended preparation: FAH260HI
$\begin{array}{ll}\text { FAH363HI } & \begin{array}{l}\text { The Mechanics of the Image } \\ \text { in East Asia }\end{array}\end{array}$
East Asian images differ from Western ones in material support, format, and technologies of image-making. This course probes how East Asian images -- painting on objects, handscrolls, prints, optical media, film, and new media - work.
Prerequisite: any 200 level FAH half course/any 100 or 200 level
EAS Society-Culture course
Recommended preparation: FAH260HI
FAH364HI Art and Architecture in South Asia 26L
An overview of major monuments and themes in the art and architecture of South Asia (India, Pakistan, Sri Lanka, Bangladesh, Nepal, Bhutan, Tibet, Afghanistan), from the Indus Valley Civilization ( 3500 BCE ) to the present. Includes first-hand study of objects in ROM collection.
Prerequisite: any 200 level FAH half course/ any course in Asian
history, culture, or religion
Recommended: FAH260HI

## $\begin{array}{ll}\text { FAH365HI } & \begin{array}{l}\text { Colonialism, Nationalism } \\ \text { and Modernity in South Asian Art }\end{array}\end{array}$

26L
Intersections of politics and the production of visual culture during the 19th and early 20th century are examined in this course, from picturesque paintings by European visitors to early Bollywood cinema. Includes first-hand study of objects in ROM collection. Prerequisite: $\mathrm{FAH} 260 \mathrm{HI} / 262 \mathrm{HI} / 364 \mathrm{HI}$

FAH368HI | Encounters: Art Within and |
| :--- |
| Beyond East Asia |

Artistic production moved fluidly within and beyond East
Asia. To understand the artistic world of East Asia, this course
probes phenomena that may include Buddhist art, art of
conquest dynasties, Chinoiserie, art of the Pacific Rim, film, and
contemporary art.
Prerequisite: any 200 level FAH half course/any 100 or 200 level
EAS Society-Culture course

Recommended preparation: FAH260HI

| FAH370HI | European Renaissance 26L |
| :---: | :---: |
| Architecture |  |
| (formerly FAH324HI) |  |
| Architecture and architectural theory ca. 1400 - ca. 1600. |  |
| Prerequisite: FA | H//278HI |
| Exclusion: FAH3 |  |

## FAH37IHI Architecture and Urbanism in Baroque Europe (formerly FAH355HI)

Architecture studied through its various building types and in its urban context. Themes include architecture and power under Absolutism, and the rise of the modern city.
Prerequisite: $\mathrm{FAH} 270 \mathrm{HI} / 278 \mathrm{HI} / 28 \mathrm{IHI}$
Exclusion: FAH355HI

## FAH372HI Architecture in the Age of Historicism ca. 1750-ca. 1900 <br> (formerly FAH28IHI)

26L

Major monuments and key figures in architecture and urbanism in Europe and North America from the Enlightenment to the birth of Modernism.
Prerequisite: $\mathrm{FAH} 270 \mathrm{HI} / 272 \mathrm{HI} / 278 \mathrm{HI}$
Exclusion: FAH28IH
FAH373HI $\begin{aligned} & \text { Modern Architecture Since } 1890 \\ & \text { (formerly FAH282HI) }\end{aligned}$
26L (formerly FAH282HI)
Major monuments and key figures in architecture and urbanism from Industrialization to the mid-twentieth century. Topics may include architectural theory, colonialism, and new technologies. Prerequisite: FAH270HI/272HI/278HI/28IHI
Exclusion: FAH282HI

## FAH374HI Consequences of Modernism: <br> Architecture after 1945 <br> \section*{(formerly FAH382HI)}

An examination of architectural theory and practice from the end of Modernism to the present.
Prerequisite: $\mathrm{FAH} 270 \mathrm{HI} / 272 \mathrm{HI} / 278 \mathrm{HI} / 28 \mathrm{IHI} / 282 \mathrm{HI}$
FAH375HI American Architecture: A Survey 26L Vernacular traditions of the colonial period, patterns of settlement and urbanization, the emergence of the architect and development of high styles of architecture throughout representative parts of what is now the United States, from ca. 1650 to ca. 1925.
Prerequisite: $\mathrm{FAH} 270 \mathrm{HI} / 272 \mathrm{HI}$
FAH376HI Canadian Architecture:A Survey 26L Vernacular traditions in building, patterns of settlement and urbanization, and development of high styles in architecture in New France, British North America, and what is now Canada, from ca. 1650 to ca. 1925. Material economy, cultural identity, local character, regional expression, national symbolism and international influences.
Prerequisite: $\mathrm{FAH} 270 \mathrm{HI} / 272 \mathrm{HI}$

## FAH380HI/YI Special Topics in Art History 26L/52L

 (formerly FAH395HI)The study of various aesthetic, cultural, social, political, and theoretical aspects of Western art and photography across the centuries.
Prerequisite:Two FAH half courses or permission of instructor Exclusion: FAH395HI

## FAH38IHI Problems in Jewish Art (formerly 329HI)

This course investigates the changing definition of Jewish art and the status of Jewish artists. Other issues explored include Jewish-Christian visual polemics, the construction of individual and communal Jewish identity through art, architecture, and texts, and the conceptual transformation of Jewish craft and ritual objects into art.
Recommended preparation: $\mathrm{FAHIO2HI}$, a 200 level FAH half course
Exclusion: FAH329HI
FAH390HI/Y0 Art and Power
26L/52L
Investigates the intersection of art and power in history and in our own time. Explores how city plans, landscapes, buildings, paintings, sculpture, costumes, advertisements, monuments, parades, and other art forms create and expand personal, national, institutional, political, sexual, spiritual, and other kinds of power. May be offered at St. George or abroad through Woodsworth College.
Recommended preparation: FAHIOOY/IOIHI/I02HI

## Studies Abroad

Studying original works of art and architecture is a key component in the history of art. The Department of Art offers, through Woodsworth College, courses abroad on a regular basis and encourages students to consider enroling in these. Courses are offered on a rotating basis; please consult Woodsworth College Summer Abroad website, www.summerabroad.utoronto. ca, the department's website, and the registration handbook for information on specific courses offered in any given year.

FAH39IYO Studies Abroad in Ancient Art and Architecture
Prerequisite: one FAH half course in ancient art, architecture, and archaeology/permission of instructor

## FAH392Y0 Studies Abroad in Medieval Art and Architecture <br> Prerequisite: one FAH half course in medieval art and architecture/ permission of instructor

FAH393Y0 Studies Abroad in Renaissance and Baroque Art and Architecture
Prerequisite: one FAH half course in Renaissance or Baroque art and architecture/permission of instructor

FAH394Y0 Studies Abroad in Modern and Contemporary Art and Architecture
Prerequisite: one FAH half course in Modern or Contemporary art and architecture/permission of instructor
FAH395Y0 Studies Abroad in Canadian Art and Architecture
Prerequisite: one FAH half course in Canadian art and architecture/permission of instructor
FAH396YO Studies Abroad in Asian Art and Architecture
Prerequisite: one FAH half course in Asian art and architecture/ permission of instructor
FAH397Y0 Studies Abroad in Architectural History
Prerequisite: one FAH half course in architectural history/ permission of instructor

FAH398H0/ Independent Experiential Study Project 399Y0
An instructor-supervised group project in an off-campus setting. See page 47 for details.

## Note

Enrolment is limited in 400 level courses. In addition to the prerequisites listed below, enrolment is also possible for each course with permission of instructor. For additional information, refer to the annual registration handbook and timetable.

FAH40IHI Aegean Wall Paintings
Investigation of the wall-paintings of the Minoan, Cycladic and Mycenaean worlds in the second millennium BC: context, associations, viewing and historical interpretations.
Prerequisite: FAH205HI/206HI
Recommended preparation: FAH300HI/303HI/304HI/

## FAH403HI Art and Archaeology of <br> Ancient Cyprus <br> (formerly FAH423HI)

Examination of the art, archaeology and architecture of Cyprus from its first colonization c.I0,000BC through to the 7th century AD.
Prerequisite: $\mathrm{FAH} 205 \mathrm{HI} / 206 \mathrm{HI}$
Recommended preparation: FAH303HI/304HI/
Exclusion: FAH423HI

## FAH404HI Greek Architecture

(formerly FAH4I9HI)
Architecture and its development in Archaic through Classical Greece, looking at the major monuments of Greece and the wider Greek world.
Prerequisite: FAH206HI/207HI
Recommended preparation: $\mathrm{FAH} 300 \mathrm{HI} /$
Exclusion: FAH4I9HI
FAH406HI Studies in Greek Painting and Sculpture 26S
An examination of selected works in sculpture and/or painting from the Archaic, Classical, and Hellenistic periods through a consideration of iconography, style, technique, distribution, and use. Prerequisite: FAH206HI/207HI
Recommended preparation: $\mathrm{FAH} 3 \mathrm{IOHI} / 3 \mathrm{IIHI} / 3 \mathrm{I} 2 \mathrm{HI}$

## FAH407HI Studies in Roman Painting and Sculpture

Issues explored might cover Republican and Imperial painting; its Hellenistic sources and parallel media (mosaic, relief). The four distinctive genres of Roman sculptural production: the portrait, the historical relief, sarcophagi, and replicas of famous Greek sculptures. Styles, themes and modes of display in cultural context. Prerequisite: $\mathrm{FAH} 206 \mathrm{HI} / 207 \mathrm{HI}$
Recommended preparation: $\mathrm{FAH} 305 \mathrm{HI} / 309 \mathrm{HI} / 3 \mathrm{I} 2 \mathrm{HI}$

## FAH418HI Studies in Early Christian and Byzantine Art and Architecture

In-depth examination of key monuments and issues in art and architecture from the Early Christian (Ist-5th centuries) or Byzantine (6th-I5th centuries) periods.
Prerequisite: $\mathrm{FAH} 2 \mathrm{I} 5 \mathrm{HI} / 216 \mathrm{HI} / 26 \mathrm{IHI}$
Recommended preparation: $\mathrm{FAH} 316 \mathrm{HI} / 32 \mathrm{IHI}$

FAH420HI Studies in Western Medieval

## Art and Architecture

In-depth examination of monuments and issues in the art and architecture of Western Europe from the sixth to the fifteenth century.
Prerequisite: $\mathrm{FAH} 2 \mathrm{I} 5 \mathrm{HI} / 216 \mathrm{HI} / 26 \mathrm{IHI}$
FAH42IHI Studies in Medieval Cities
26S
A focused examination of urbanism, art and architecture of a specific medieval city, such as Jerusalem, Rome, Constantinople, or Paris.
Prerequisite: $\mathrm{FAH} 2 \mathrm{I} 5 \mathrm{HI} / 216 \mathrm{HI} / 26 \mathrm{IHI}$
Recommended preparation: FAH325Y0/FAH327HI/328HI
FAH424HI Studies in Medieval Book 26S Illumination
A consideration of individual types of books, their decoration, function, and cultural context. Topics might include, for example, Gospels, Psalters, or Books of Hours.
Prerequisite: FAH2I5HI/216HI/26IHI
Recommended preparation: FAH3I9HI/SMC358H
FAH425HI Studies in Medieval Art and Gender 26S
An investigation of the role played by gender in the creation and use of art and architecture in the Middle Ages.
Prerequisite: $\mathrm{FAH} 2 \mathrm{I} 5 \mathrm{HI} / 216 \mathrm{HI} / 26 \mathrm{IHI}$
Exclusion: FAH435H5
FAH426HI Medieval Art in Local Collections 26S
First hand examination of objects of medieval art from local
Toronto collections.
Prerequisite: FAH215HI/216HI/26IHI

## FAH430HI Pieter Bruegel <br> (formerly FAH428HI)

The study of Pieter Bruegel's works in the context of
Netherlandish culture. Emphasis on secular works.
Prerequisite: $\mathrm{FAH} 307 \mathrm{HI} / 33 \mathrm{IHI}$; permission of instructor Exclusion: FAH428HI
Recommended preparation: Reading knowledge of French or German
FAH432HI Caravaggio
The life and work of Caravaggio in the context of 17th-century Roman and Neapolitan art theory and patronage, with a particular emphasis on the contentious issue of realism.
Prerequisite: Permission of instructor
Recommended preparation: $\mathrm{FAH} 230 \mathrm{HI} / 23 \mathrm{IHI} / 274 \mathrm{HI} / 279 \mathrm{HI} /$ $34 \mathrm{IHI} / 342 \mathrm{HI}$

## FAH434HI Art Before and After Modernity (formerly FAH435HI)

The convulsive redefinitions of art during the sixteenth and twentieth centuries serve as an indirect introduction to modern aesthetics and a basis for reflection on the future of art. Classes in seminar room and in art galleries. Readings by Hans Belting, T. J. Clark, Arthur Danto, Rosalind Krauss.
Prerequisite: At least three 300-level half courses in FAH Exclusion: FAH435HI

## FAH438HI Rereading the "High

## Renaissance" in Italy

A careful reading of some classic accounts of the "High
Renaissance", from Vasari and Reynolds to Wolfflin and Freedberg, serves as the basis for an analysis of developments within various genres and types of art production in the period: drawings, altarpieces, portraits, cabinet pictures and sculpture.
Prerequisite: At least one 300 -level half course in Renaissance art

## FAH439HI Art and Reform in the Renaissance

Consideration of European art ca. 1500 in the context of the reform debates that mark the period. Students study original works of art in the AGO and read period texts by, among others, Girolamo Savonarola, Desiderius Erasmus, and Martin Luther. Prerequisite: At least one 300 -level half course in Renaissance art Exclusion: FAH44IH5

## FAH440HI Dutch Genre Painting of the 17th Century

Study of so-called "scenes of everyday life." Special attention given to cultural context and problems of interpretation, the work of Jan Vermeer, and the reputation of this art in following centuries.
Prerequisite: $\mathrm{FAH} 307 \mathrm{HI} / 308 \mathrm{HI} / 33 \mathrm{IHI} / 340 \mathrm{HI} 428 \mathrm{HI}$; permission of instructor
Recommended preparation: Reading knowledge of French or German

## FAH443HI Visual Modes of Communication 26S

A history of gesture and physiognomy in Italian Renaissance and Baroque art and literature as narrative and rhetorical techniques.
Prerequisite: $\mathrm{FAH} 230 \mathrm{HI} / 23 \mathrm{IHI} / 274 \mathrm{HI} / 279 \mathrm{HI} / 333 \mathrm{HI} / 34 \mathrm{IHI} /$ 342 HI

## FAH445HI The Paris Salon and French Art 26S of the Nineteenth Century

French painting, sculpture, and criticism of the mid-I9th century, with particular to the key role played by the Paris Salon: its emergence and decline as a public space for exhibitions, its impact on the shape of artistic careers, and the relation between the Salon and artistic practices. Attention both to Modernist artists, such as Manet, and to their opponents. Students will engage in critical readings of primary and secondary texts (Baudelaire,T. J. Clark, Michael Fried), as well as conduct original research on important Salon paintings and sculptures. Assignments will include a book review, an annotated bibliography, and a research paper. Prerequisite: $\mathrm{FAH} 245 \mathrm{HI} / 280 \mathrm{HI} / 287 \mathrm{HI}$
Recommended preparation: FAH346HI/345HI/378HI/383HI.
Reading knowledge of French strongly recommended.

## FAH446HI Realism 26S

An examination of mid-19th century French Realism with emphasis on Courbet, Millet, the Barbizon School, Daumier and Manet.
Prerequisite: $\mathrm{FAH} 245 \mathrm{HI} / 287 \mathrm{HI}$
Exclusion: FAH3I5H5
Recommended preparation: Reading knowledge of French

## FAH447HI I9th-Century Landscape Painting 26S

Investigation of English, French, German and Swiss landscape painting from the birth of the Romantic movement to PostImpressionism.
Prerequisite: $\mathrm{FAH} 245 \mathrm{HI} / 287 \mathrm{HI}$
Recommended preparation: Reading knowledge of French or German

## FAH448HI International Art Since 1940 <br> 26S

(formerly FAH402HI)
Developments in the mainstream of Western painting and sculpture since World War II with special emphasis upon interrelations between Europe and North America.
Prerequisite: $\mathrm{FAH} 246 \mathrm{HI} / 288 \mathrm{HI} / 289 \mathrm{HI} / 348 \mathrm{HI} / 350 \mathrm{HI} / 35 \mathrm{IHI} /$ $385 \mathrm{HI} / 388 \mathrm{HI} / 389 \mathrm{HI}$
Exclusion: FAH402HI

## FAH449HI Contemporary Art Movements (formerly FAH4IIHI)

Selected aspects of the complex array of international contemporary art movements, their artists, objects, and critical discourses. Potential issues include the theoretical, philosophical, and political concerns addressed by given artworks and artists; the role of art journals, the private patron, and museum display. Prerequisite: $\mathrm{FAH} 246 \mathrm{HI} / 289 \mathrm{HI}$
Exclusion: FAH4IIHI

| FAH457HI | Issues in Canadian Art, <br> ca. 1900-1940 |
| :--- | :--- |
|  | 26S |

## (formerly FAH4I5HI)

Focused, thematic examinations of the visual arts in Canada in the first half of the twentieth century.
Prerequisite: $\mathrm{FAH} 246 \mathrm{HI} / 286 \mathrm{HI} / 352 \mathrm{HI} / 386 \mathrm{HI}$
Exclusion: FAH4I5HI

## FAH458HI Issues in Recent Canadian Art <br> (formerly FAH416HI)

Focused, thematic examinations of the visual arts in Canada from 1940 to the present.
Prerequisite: $\mathrm{FAH} 246 \mathrm{HI} / 286 \mathrm{HI} / 352 \mathrm{HI} / 386 \mathrm{HI}$
Exclusion: FAH416HI
FAH46IHI East Asian Art as a Cultural System 26S
Methodologically-focused seminar engaged with recovering and articulating in Western terms indigenous ways of seeing and thinking about East Asian art.
Prerequisite: $\mathrm{FAH} 260 \mathrm{HI} / 262 \mathrm{HI} / 290 \mathrm{HI} / 36 \mathrm{IHI} / 362 \mathrm{HI} / 363 \mathrm{HI} /$ $364 \mathrm{HI} / 365 \mathrm{HI} / 368 \mathrm{HI} / E A S 2 \mathrm{I}$ IYO/227Y/233HI/237YI/305YI/ $33 \mathrm{IYI} / 4 \mathrm{I} 8 \mathrm{HI}$
FAH462HI Outside East Asian Art 26S
Methodologically- and historiographically-focused seminar that attends to the contiguities and ruptures of approaching East Asian art through Western art historical methods.
Prerequisite: FAH $260 \mathrm{HI} / 262 \mathrm{HI} / 290 \mathrm{HI} / 36 \mathrm{IHI} / 362 \mathrm{HI} / 363 \mathrm{HI} /$ $364 \mathrm{HI} / 365 \mathrm{HI} / 368 \mathrm{HI} / E A S 2 \mathrm{IIYO} / 227 \mathrm{Y} / 233 \mathrm{HI} / 237 \mathrm{YI} / 305 \mathrm{YI} /$ $331 \mathrm{YI} / 4 \mathrm{I} 8 \mathrm{HI}$

FAH463HI Materiality, Objecthood, 26S Connoisseurship and Collecting in the Arts of East Asia
Seminar based on firsthand examination of East Asian objects in Toronto collections that attends to the historical processes by which such objects were valued and collected.
Prerequisite: $\mathrm{FAH} 260 \mathrm{HI} / 262 \mathrm{HI} / 290 \mathrm{HI} / 36 \mathrm{IHI} / 362 \mathrm{HI} / 363 \mathrm{HI} /$ $364 \mathrm{HI} / 365 \mathrm{HI} / 368 \mathrm{HI} / E A S 2 \mathrm{IIYO} / 227 \mathrm{Y} / 233 \mathrm{HI} / 237 \mathrm{YI} / 305 \mathrm{YI} /$ 33IYI
FAH464HI Transregional East Asian Art 26S
In-depth examination of the play of East Asian Art within and beyond East Asia.
Prerequisite: $\mathrm{FAH} 260 \mathrm{HI} / 262 \mathrm{HI} / 290 \mathrm{HI} / 36 \mathrm{IHI} / 362 \mathrm{HI} / 363 \mathrm{HI} /$ $364 \mathrm{HI} / 365 \mathrm{HI} / 368 \mathrm{HI} / E A S 2 I I Y O / 227 \mathrm{Y} / 233 \mathrm{HI} / 237 \mathrm{YI} / 305 \mathrm{YI} /$ $33 I Y I$

FAH466HI Contemporary South Asian Art 26S
Examination of current issues in and methods of studying contemporary art from South Asia and the South Asian Diaspora. Includes first-hand study of objects in ROM collection, exhibit and studio visits, and possible guest lectures.
Prerequisite: $\mathrm{FAH} 262 \mathrm{HI} / 364 \mathrm{HI} / 365 \mathrm{HI}$

## FAH470HI Studies in Renaissance and Baroque Architecture (formerly FAH450HI)

An in-depth study of themes and problems in architecture in
Renaissance and Baroque Europe.
Prerequisite: $\mathrm{FAH} 324 \mathrm{HI} / 355 \mathrm{HI} / 370 \mathrm{HI}$
Exclusion: FAH450HI
FAH47IHI Major Figures of Twentienth-

## Century Architecture

A close study of the major architects, designers and theorists of 20th-century architecture
Prerequisite: FAH $372 \mathrm{HI} / 373 \mathrm{HI} / 374 \mathrm{HI} / 375 \mathrm{HI} / 376 \mathrm{HI}$

## FAH477HI Toronto Architecture <br> (formerly FAH377HI) <br> A first-hand study of the architecture and urban planning of Toronto. <br> Prerequisite: $\mathrm{FAH} 372 \mathrm{HI} / 373 \mathrm{HI} / 374 \mathrm{HI} / 375 \mathrm{HI} / 376 \mathrm{HI}$ <br> Exclusion: FAH377HI

FAH480HI | University Art Centre |
| :---: |
| Exhibition Course |
| (formerly FAH454HI) |

Students work together designing and installing an exhibition
of works of art, normally drawn from the collections of the
University Art Centre. The course meets every two weeks at the
University Art Centre over the entire academic year.
Prerequisite: 8 FAH half courses; permission of instructor
(application in department)
Exclusion: FAH45IH5/454HI/455HI

Exclusion: FAH45IH5/454HI/455HI

## FAH48IHI Internship at the University <br> Art Centre <br> (formerly FAH455HI)

The internship is designed to offer hands-on experience pertaining to the study, exhibition, and care of works of art, focused on the collections and activities of the University Art Centre. The course extends over the entire academic year.
Prerequisite: 8 FAH half courses; permission of instructor (application in department)
Exclusion: FAH $454 \mathrm{HI} / 455 \mathrm{HI}$

## FAH482HI Master works of Art at the Art Gallery of Ontario

This course develops art historical, connoisseurship, and analytical skills based on works of art in the permanent collection of the Art Gallery of Ontario. The course is designed to expose students to key issues in visual analysis, art history, and art historical interpretation arising from the direct study and investigation of art objects. The course will be located at the Art Gallery of Ontario. Its focus may shift around different aspects of the collections (works on paper, modern and contemporary art, the Thompson Collection, and other collections, depending availability and access.

FAH483HI | Introduction to Conservation: |
| :--- |
| Materials, Deterioration, and |
| Preservation in Art and Material Culture |
| (formerly FAH453HI) |

An introduction to conservation, designed to give students a
basic understanding of the field, its techniques, and its purposes.
Sessions conducted by specialists in the Royal Ontario Museum
conservation department.
Prerequisite: 8 FAH half courses; permission of instructor.
Exclusion: FAH453HI

## FAH484HI

## Fashion, \& Textiles: Culture \& Consumption (formerly FAH459HI)

This course examines the history, meaning and consumption of Western European textiles (Late Antique - 18th century) and fashionable dress (18th-21st centuries).Analysis and research will combine student seminars with the study of actual artefacts in the Textile \& Costume Collection of the Royal Ontario Museum. Prerequisite: 8 FAH half courses; permission of instructor. Exclusion: FAH459HI

## FAH485HI

## Collecting Canada:Art in the Royal Ontario Museum (formerly FAH456HI)

Approach to and hands-on study of the mostly pre-I900 Canadian picture collection in the Royal Ontario Museum. Topics include past collecting patterns, collecting "Canadiana" in the twentieth century, and how such collections function within multi-disciplinary museums.
Prerequisite: $\mathrm{FAH} 248 \mathrm{HI} / 286 \mathrm{HI}$, one FAH FCE at the 300 -level; permission of instructor
Recommended preparation: FAH352HI/386HI
Exclusion: FAH456HI

## FAH486HI Case Studies at the Royal

 Ontario MuseumIn-depth investigation of objects at the Royal Ontario Museum. Content will vary according to the museum department offering the course in any given semester.
Prerequisite: 8 FAH half courses; permission of instructor.
FAH489HI Topics in the History of 26S Art and Architecture
Focused examination of special topics in any period of Mediterranean, European, North American, or Asian art and architecture.
Prerequisite: 8 FAH half courses; permission of instructor

## Independent Studies

Students may request to undertake supervised research projects culminating in a major research paper. Such projects are often the continuation of work in a previous FAH course, usually at the 400 level. Not more than one course in Independent Studies may be taken in a single year. Students must obtain in advance the written consent of a faculty supervisor(s) and the Undergraduate Secretary before registering.

Prerequisite for all independent studies: five FAH courses; permission of instructor
FAH49IHI/YI Independent Studies in Ancient Art and Architecture
FAH492HI/YI Independent Studies in Medieval Art and Architecture
FAH493HI/YI Independent Studies in Renaissance and Baroque Art and Architecture
FAH494HI/YI Independent Studies in Modern and Contemporary Art and Architecture
FAH495HI/YI Independent Studies in Canadian Art and Architecture
FAH496HI/YI Independent Studies in Asian Art and Architecture
FAH497HI/YI Independent Studies in Architectural History

## Visual Studies Courses

## Note 1.

Visual Studies has replaced the previous FAS program. Students in the FAS program requiring credits should select courses from the VIS program to complete their FAS program requirements.

## Note 2.

VIS and FAH courses except VIS I20HI and VIS I30HI give priority to students enroled in our Specialist, Major and Minor programs. Students must follow procedures as outlined in the Registration Handbook and Timetable and instructions in the Department of Art web site.

## Note 3.

Exclusions have been included for many FAS studio courses at the University of Toronto Mississauga. St George students wishing to take any remaining FAS courses there will need the written permission of the Undergraduate Coordinator for VIS.
VISI20HI Visual Concepts 26L, I3T

Visual concepts introduces students to a wide range of topics situated in Modernism and Post-modernism that inform current art practice and critical discourse. The course investigates post1970 art practice through the diverse societal, cultural and political influences of post-modernism.
VISI30HI Visual Strategies 52P, I3T
A studio based course that employs intensive and diverse investigation of drawing strategies that stress the formulation and communication of visual ideas.NOTE enrolment instructions in the Registration Handbook and Timetable for this course! A studio fee of $\$ 25$ is payable with tuition. Note: this is a half course taught over the entire academic year.
Co-requisite:VISI20HI
Exclusion: FAS 143HI
VIS20IHI Painting: Methods and Materials 39P
This is a hands-on course that deals with technical and theoretical issues of painting in the early 21 st century. The act of painting and the relevance of painting are stressed through both historical and current issues. This course is very project oriented.
Prerequisite:VISI20HI, 130 HI
Exclusion: FAS 145 HI

## VIS202H I Video For Artists 39P

A studio course that introduces the history and contemporary practice of video art. In addition to hands-on instruction in digital production and post-production, the course includes seminars, readings and screenings. Students produce a number of short digital video projects and participate in group seminars and critiques.
Prerequisite:VISI20HI,VISI30HI

## VIS203HI Time-Based Arts <br> 13L, 26P

A studio course examining the particular properties of various time-based art forms, including audio and audio installation, video and video installation, interactive performance and other timebased media used by artists. Readings, gallery visits and screenings and slide presentations provide background to these art practices. Students produce projects responding to assignments.
Prerequisite:VISI20HI,VISI30HI

VIS204HI 3D Installation
13L, 26P
This course is designed to introduce students to the basic principles of working in 3 dimensions, using projects, slide lectures and writing. A studio fee of $\$ 50.00$ is payable with tuition.
Prerequisite:VISI20HI, 130 HI
Exclusion: FASI46HI
VIS205HI Drawing 39P
Studio-based projects explore drawing practice in the early 21 st century. Materials and approaches both bear witness to continuity and respond to changing contemporary cultural issues. (A studio fee of $\$ 15$ is payable with tuition.)
Prerequisite:VISI20HI, I30HI
Exclusion: FAS 243HI

## VIS206HI Print Media One - Relief 39P (formerly VIS203HI)

Principles and practices of Relief Printmaking. Projects in single and multiple block edition production. (A studio fee of $\$ 120$ is payable with tuition.)
Prerequisite:VISI20HI, 130 HI
Exclusion: FAS 232 HI

VIS207HI | Print Media II - Intaglio |
| :--- |
| (formerly VIS303HI) |

An introduction through studio projects to the principle forms of intaglio printmaking, including etching and collagraph. (A studio fee of $\$ 120$ is payable with tuition.)
Prerequisites:VISI20HI,VISI 30
Exclusion: FAS 324HI
VIS208HI Performance Art I3L, 26P
Practical and aesthetic concerns in the evolution of Performance against the backdrop of critical and historical perspectives. Students explore a range of Performance possibilities, alone and collaboratively to develop both intellectual and physical skills which will inform both their performance work and their view of art. Seminars focus on critical aspects of Performance.
Prerequisite:VISI20HI, 130 HI
VIS209HI Women in Visual Art I3L, 26P
The emergence and incorporation of the feminist perspective in current art theory and practice form the basis of lectures, seminars, projects and essays that focus on language, photography and other mediums that signal the shift to a variety of strategies shaping art in the post-modern era. Prerequisite:VISI20HI VISI30HI

## VIS2IIHI Works on Paper <br> 13L, 26P

(formerly VIS 205HI)
A studio based course which explores the potential of paper from drawing to object making, in the context of contemporary art practice.
Prerequisite:VISI20HI, 130 HI
Exclusion: FASI43HI, FAS243HI

## VIS2I2HI Colour <br> 13L, 26P

Colour may be claimed as the property of all: for most everyone sees, uses, and knows colour. Studying colour takes us into areas of humanities and sciences. This study, through lectures, projects and readings aims to develop a student's understanding and use of colour. (Studio fee of $\$ 20.00$ payable with tuition).
Prerequisite:VISI20HI VISI30HI
VIS2I7HI Photobased (Chemical) I3L, 26P
Photobased projects in which the fundamentals of optical-chemical-mechanical photographic processes and technologies are integrated with concepts in contemporary photobased practice.
(Studio fee of $\$ 60.00$ payable with tuition; student must have light metre and 35 mm camera that allows full manual control.)
Prerequisite:VISI20HI, 130 HI
Exclusion: FASI47HI

## VIS2I8HI Photobased (Digital) I3L, 26P

Photobased projects in which the fundamentals of optical/digital photographic processes and technologies are integrated with concepts in contemporary photobased practice. (Studio fee of $\$ 60.00$ payable with tuition.)
Prerequisite:VISI20HI, I30HI
Exclusion: FASI47HI

## VIS220HI Painting and the Subject 39P

Painting and the subject continue the exploration of formal and material issues introduced in Painting, Method and Materials. Representation and abstraction are investigated through the development of subject matter and themes drawn from personal, social and cultural sources.
Prerequisite: VISI20HI, I $30 \mathrm{HI}, 20 \mathrm{IHI}$

## VIS30IHI Painting:The Painted Edge 39P

This studio based, project oriented course critically examines contemporary visual culture through painting. Projects are presented and discussed during regular class critiques. Lectures will take place throughout the course.
Prerequisite:VISI20HI,VIS I30HI,VIS20IHI
Exclusion: FAS245HI

## VIS302HI Video:Advanced Projects 39P

Emphasis on pre-production, production and post-production of a video project. Students script, shoot and edit a tape through rough cut to fine cut. Class discussions focus on all stages of the work-in-progress. Strategies for distribution, exhibition and funding are examined. A studio fee of $\$ 75.00$ is payable with tuition
Prerequisite:VISI20HI,VISI30HI,VIS202HI
VIS303HI Advanced Time-Based Arts I3L, 26P
A studio course that continues the students' development in all areas of time-based art practice through seminars, readings and self-directed projects.
Prerequisite: VISI20HI, I30HI,VIS202HI/203HI

## VIS305HI Drawing and Painting <br> 39P

Time and place in drawing and painting. This course provides a discourse with which to continue the evolution of the students' work in drawing and painting.
Prerequisite: $\mathrm{VISI} 20 \mathrm{HI}, \mathrm{VISI} 30 \mathrm{HI}, 20 \mathrm{IHI}$ and one of VIS205HI/ 21 IHI
Exclusions: FAS243HI, FAS343HI, FAS345HI

## VIS306HI Site/Installation and I3L, 26P

 3-D ConstructionAn investigation into the history and practice of site/installation and 3 dimensional fabrication through slide lectures, projects and seminar discussions. Earth works, large scale public projects, and site specific installations will be explored.
Prerequisite:VISI20HI, I30HI, 204HI
Exclusion: FAS348HI

## VIS307HI Art and Context <br> 13L, 26P

Applying art to the borders of other disciplines or issues within the university community, students develop projects with the objective of opening spaces for discourse: art as a transgressive device.
Prerequisite:VISI20HI, I30HI and one VIS 200-level course.

VIS309HI The Processed Image I3L, 26P
Seminars and studio projects give the more advanced students the opportunity to address issues of transformation in Print technology. A \$I20.00 studio fee is payable with tuition
Prerequisite:VISI $20 \mathrm{H}, \mathrm{VISI} 30 \mathrm{H}$ VIS203HI, 303 HI , or VIS206HI, VIS207HI
Exclusion: FAS334HI
VIS3IOHI Imaging the Political I3L, 26P
Studio projects complemented by seminars and readings examine plastic, social and gender politics in contemporary imaging. Prerequisite:VISI20HI VISI30HI and one VIS 200-level course

## VIS3IIHI Independent Projects TBA

Students propose and produce projects in media that are offered in Visual Studies. (A studio fee of $\$ 50$ in video, sculpture and printmaking only is payable with tuition.)
Prerequisite: Permission of instructor
VIS3I2HI Collage I3L, 26P
An investigation of collage through the 20th century. The evolution of collage as a means of expression will be explored in the form of studio projects and lectures.
Prerequisite:VISI20HI, I30HI and one VIS 200-level course

## VIS3I3HI The Body I3L, 26P

Ideas about the body are challenged by developments in technology, culture and politics. This course studies the metamorphosis of gender, age and culture through projects, lectures and readings.
Prerequisites VISI20HI,VISI30HI and one VIS 200-level course

## VIS3I8HI Integrated Photobased I3L, 26P Explorations

Studio projects are based on issues and writing relevant to contemporary photobased practice; seminars and readings are integral. Students will work with both chemical and digital processes. (Studio fee of $\$ 60.00$ payable with tuition.)
Prerequisite:VIS (I20HI, 130 HI$), 217 \mathrm{HI} / 218 \mathrm{HI}$ Exclusion: FAS347HI

## VIS3I9HI Defining Landscapes I3L, 26P

The concept of "landscape" is the entry point for investigating the relationship between people and their environments: landscape as both the source of inspiration and the vehicle of expression. Exploration through open media studio projects, written work, readings and seminars.
Prerequisite:VISI20HI,VISI30HI and one VIS 200-level course
VIS320HI Critical Curatorial Lab I3L, 26P
Projects and seminars, in collaboration with The Power Plant, develop an understanding of curatorial and critical practices in contemporary visual and media arts.
Prerequisite:VIS $(120 \mathrm{HI}, \mathrm{I} 30 \mathrm{HI}) / \mathrm{FAHI} 02 \mathrm{HI}$ and one FAH OR VIS
200-level course
Exclusion: FAH 45 IHI
VIS32IHI Artists' Multiples I3L, 26P
Production of artists' multiples in various media is augmented with gallery and archive visits, screenings and artist talks. Historical and contemporary technologies for reproduction are examined.
Prerequisite:VISI20HI,VISI30HI and one VIS 200-level course

## VIS322HI The Constructed Image I3L, 26P

Composing an image is a skill. Students increase their skill and methodology in constructing their own images; they explore the construction of the image as an intersection of theory and practice.
Prerequisite:VISI20 and VISI30 and any 200 level VIS course

## VIS323HI Advanced Painting <br> 39P

Advanced Painting introduces philosophical and theoretical issues raised by the conceptual relationship of painting to other artistic strategies and the contemporary environment. Studio work will be complemented by the study of advanced artists working in this medium.
Prerequisite: VISI20HI,VISI30HI,VIS20IHI,VIS220H
VIS324HI The Aesthetics of Everyday Life 39P
This interdisciplinary seminar course examines the aesthetic qualities of objects and experiences not usually considered by philosophers, including such things as sports, food, human relationships and weather. Projects are based on the textbook,
"The Aesthetics of Everyday Life" and students will be evaluated through open-media studio projects and class participation.
Prerequisite: VISI20HI,VISI30HI, a minimum of one 200 -level VIS course

## VIS325HI Contemporary Art Issues 39P

Everything was contemporary once; this course explores the idea of contemporaneity. Students will be asked to identify themselves in the present-day landscape and to convey that awareness in seminar discussions and studio projects.
Prerequisite: VISI20HI,VISI30HI, a minimum of one 200-level VIS course

## VIS326HI Studio Practice 39P

A project-based studio course in which each student works to advance and to articulate their visual arts practice, and to develop individual process, themes and influences, the articulation. Group critiques, seminars, reading and writing assignments. Open media, students must have access to own means of production. Prerequisite: VISI20HI,VISI30HI, at least two 200-level VIS courses

## DRM354YI Production II I3L, 26P

The course explores the meaning and function of stage and costume design for the theatre with emphasis on creative thinking, text analysis and concept development. Limited enrolment for Visual Studies students who must be at the 3rd-year level.
Prerequisite: Permission of University College Drama Program Committee

## VIS40IHI Thesis Text and Critique 39P

This course is taken in conjunction with VIS 402 HI :Thesis Project students develop and fabricate a series of projects over the course of the academic year. Studio, ,textual and critical analysis forms the basis for the final exhibition. The student is required to actively participate in all aspects of the course. Class discussions with faculty This class is intended for 3rd and 4th year VIS Majors and Specialists.
Prerequisite: VISI20HI, 130 HI and at least two 200-level VIS courses and two 300-level VIS courses.
Exclusions:FAS 434-5, FAS 447-8, FAS 450-3

## VIS402HI Thesis Project 39P

Students realize projects embarked upon in VIS 40 IHI Thesis Text and Critique. Class discussions with faculty.
Co-requisite:VIS40IHF
Exclusions: FAS 434-5HI, FAS 447-8HI, FAS450-3HI
VIS403HI Secondary Focus Project 39P
A variety of projects developed in various media with a strong interdisciplinary focus.
Prerequisite: Permission of instructor

VIS404H Independent Studies 39P
Individual advanced projects, including texts, that are subject to group critiques.
Prerequisite: Permission of instructor
VIS405HI Visual Studies Internship I3L, 26P
A one semester Internship provides placement at a gallery, media arts centre, artist run centre, artist or publication with a focus on contemporary art practice
Prerequisite:VISI20HI, 130 HI , permission of Undergraduate Secretary

## Notes:

Only three of VIS3IIHI,VIS403HI,VIS404HI,VIS405HI may be taken.
Independent Studies credits (VIS3IIHI, 403HI, 404HI, and 405 HI are only open to VIS Specialists and VIS Majors.

VIS4IOHI Artist In Residence Master Class TBA
Students work under the supervision of a visiting artist who provides the students with a full introduction to the specifics of her/his practice as an artist. A variety of media are explored specific to the visitor's own practice. Seminars are augmented with critiques in response to assignments.
Prerequisite: VISI20HI,VISI 30 HI , at least two 300 -level VIS
courses and permission of Graduate Program Director

## Dr. David Chu Program in Asia-Pacific Studies

The Dr. David Chu Program in Asia-Pacific Studies welcomes students who wish to combine concentrated study in a traditional academic discipline with an interdisciplinary major program that focuses on contemporary developments in this rapidly changing region. A broad survey course offered by the Department of Political Science provides students with a solid understanding of the complex political, economic, social and cultural life of the region. An additional range of optional courses that span the humanities and the social sciences allow students to develop more specialized knowledge of the region. Finally, a fourth-year capstone course allows students in the program to synthesize what they have learned in various optional courses while undertaking independent research on a topic of special interest.

Study of a major language of the region is an important component of the program. In many cases, this can be achieved by taking two courses in one of the three main languages taught in the Department of East Asian Studies: Chinese, Japanese or Korean. All possible efforts will also be made to assist and support students who wish to achieve basic fluency in another language of the region. Students who are already fluent in a language of the region are allowed to substitute optional courses for the language course requirements.

Students may consult the Director of the Program at the Munk Centre for International Studies. For general inquiries contact the Program Administrator at 416-946-8996, Munk Centre for International Studies, Room 227N or munk.aps@ artsci.utoronto.ca. For current developments, please check the Program's University web site (www.utoronto.ca/davidchu).

## Dr. David Chu Program in AsiaPacific Studies

Enrolment in the Dr. David Chu Program in Asia-Pacific Studies is open to students who have successfully completed four full courses. A minimum CGPA of 2.5 is required. Those who seek advanced language standing must receive permission from the Program Director, and will be required to complete recommended substitute courses. Formal admission to the program is achieved by completing a required enrolment form. The required form is available from the Director, the Program Administrator, or the Program's web site.

## Major program:

(7 full courses or their equivalent, including at least two $300+$ series courses)
I. POL 215 YI ;ASI 400 Y I. These courses must be taken in sequential order.
2. Two sequential YI courses normally in one of three languages - Chinese, Japanese or Korean - offered by the Department of East Asian Studies. For other languages, such as Thai, Vietnamese, Malay and Indonesian, students should consult with the Program Director. Generally two sequential courses are required for these languages as well but the Program will consider other arrangements including study abroad and intensive summer courses at other universities.
3. Three additional full course equivalents on appropriate Asia-Pacific topics from offerings in the following departments: ANT, EAS, GGR, HIS, PHL, POL, RLG, SOC. Students are invited to select any courses on the Asia Pacific region that are offered by the above departments (or by other departments not listed here). Please consult with the Program Director if you have any questions about your course selection.

## Asia-Pacific Studies Courses

See page 33 for Key to Course Descriptions.

## ASI400YI Seminar in Asia-Pacific Studies (formerly ASI300YI)

This seminar course examines diverse postwar experiences and realities of the Asia Pacific region, which comprises a range of countries that differ in cultural, ethnic, and religious backgrounds, in levels of social and economic developments, and in political regimes. Unlike Europe, which has gone through a steady process of integration since WWII, regional links among Asia Pacific countries have been rather weak and often limited. Attempts to forge regional economic cooperation within the Asia Pacific region, such as ASEAN, have been fraught with political and historical tensions. As a result, much of the linkage has been limited to investment, trade, and production networks. This seminar will examine the various social, economic, and political experiences and realities of the countries in this region and their implications.
Prerequisite: POL2I5YI and enrolment in the Asia Pacific
Studies major/permission of the Program Director
Exclusion:ASI300YI
This is a Humanities or Social Science course.

## Faculty

Professors Emeriti and Directors Emeriti of the David Dunlap Observatory<br>J.D. Fernie, M Sc, Ph D, FRSC<br>E. R. Seaquist, MA, PhD<br>Professors Emeriti<br>M.J. Clement, M Sc, Ph D<br>R.F. Garrison, BA, Ph D<br>P.P. Kronberg, M Sc, Ph D, D Sc<br>C.M. Clement, B Sc, MA, Ph D

Professor and Chair of the Department and Director of the David Dunlap Observatory
P.G. Martin, M Sc, Ph D $\dagger$

Associate Chair, Graduate Studies
H.K.C. Yee, B Ap Sc, Ph D

Associate Chair, Undergraduate Studies
R.G. Carlberg, M Sc, Ph D

## University Professor

J.R. Bond, OC, MS, Ph D, FRSC, FRS $\dagger$

## Professors

P.Artymowicz, MSc, PhD (University of Toronto Scarborough)
C.T. Bolton, M Sc, Ph D, FRSC
C.C. Dyer, M Sc, Ph D (University of Toronto Scarborough)
L. Kofman, BS, Ph D $\dagger$
J.B. Lester, MS, Ph D (University of Toronto Mississauga)
N.W. Murray, BS, Ph D $\dagger$

J .R. Percy, B Sc, MA, Ph D (University of Toronto Mississauga)
S.M. Rucinski, M Sc, Ph D (Associate Director, DDO)
A.C. Thompson, BS, Ph D $\dagger$
M.H. van Kerkwijk, MA, Ph D

Associate Professors
R. G. Abraham, B Sc, D Phil
R. Jayawardhana, BS, AM, PhD
S.W. Mochnacki, M Sc, Ph D
C. B. Netterfield, BS, Ph D

U-L. Pen, M Sc, Ph D †

## Assistant Professors

C. Borys, M Sc, Ph D
W.H. Clark, MA, Ph D
B.P. Crill, Sc B, Ph D
J. P. Lowman, M Sc, Ph D (University of Toronto

Scarborough)
C.D. Matzner, AB, MA, Ph D

D-S. Moon, Ph D
R.R. Rafikov, BSc, MS, PhD $\dagger$
G. Srinivasan, Ph D $\dagger \dagger$
S. Stanley, MA, Ph D $\dagger \dagger$
Y.Wu, Ph D
$\dagger$ Cross-appointed, CITA
$\dagger \dagger$ Cross-appointed, PLN

Since the launch of the Hubble Space Telescope in 1990 and the opening of a wide variety of major ground and space based sites for studying the universe across the entire electromagnetic spectrum, astronomers have been provided with an astonishing wealth of new information. From detailed studies of the Cosmic Microwave Background Radiation to the discovery of planets around other stars, from exploring the collisions of galaxies billions of years ago, to missions to the outer planets, astronomers are rapidly building a picture of the universe and the processes by which it is evolving with greater detail than ever before. The next decade might well provide answers to some of our most fundamental questions. Several courses are offered to suit persons of diverse backgrounds and depths of interest. Three beginning courses (AST $101 \mathrm{H}, 201 \mathrm{H}, 210 \mathrm{H}$ ) require no special knowledge of mathematics or other sciences. They develop an understanding of the universe in a qualitative way and in terms of natural laws familiar to us on Earth. Audiovisual demonstrations are used extensively. The courses AST 12 IHI and AST 25 IHI are intended for students in other areas of the physical and life sciences. The remaining courses are designed for program students. In some of these courses, the objective is to provide for practical involvement by the student. This is achieved by the use of the remotely-controlled telescopes at the St. George and Scarborough Campus observatories by day as well as by night. A visit to the David Dunlap Observatory might also be arranged.
Undergraduate Enquiries
ungrad.sec@astro.utoronto.ca (4I6-946-5243)
Web site:
http://www.astro.utoronto.ca

## Astronomy \& Astrophysics Programs

Enrolment in the Astronomy and Astrophysics programs requires completion of four courses; no minimum GPA is required.

## Astronomy \& Astrophysics (Science program)

## Major program:

(8 full courses or their equivalent, including at least two courses at the 300+-level)
First Year:
MAT I35YI/I37YI; PHY I38YI/I40YI
Second Year:
I. AST $22 \mathrm{IHI}, 222 \mathrm{HI}$; MAT $235 \mathrm{YI} / 237 \mathrm{Y} \mathrm{I}$
2. PHY 252 HI and one of PHY $225 \mathrm{HI}, 25 \mathrm{IHI}, 255 \mathrm{HI}, 256 \mathrm{HI}$

Third Year:
I. AST $320 \mathrm{HI}, 325 \mathrm{HI} / 326 \mathrm{Y}$
2. One course from: CSC $336 \mathrm{HI}, 350 \mathrm{HI}, 35 \mathrm{IHI}, 4 \mathrm{I} 8 \mathrm{HI}$, 456 HI ; ECE $385 \mathrm{HI} ;$ PHY $305 \mathrm{HI}, 307 \mathrm{HI} / 308 \mathrm{HI}, 3 \mathrm{I} 5 \mathrm{HI}$, $35 \mathrm{IHI}, 352 \mathrm{HI}, 353 \mathrm{HI}, 355 \mathrm{HI}, 357 \mathrm{HI}, 358 \mathrm{HI}, 359 \mathrm{HI}$
3. One additional course or half course in APM/AST/CSC/ MAT/PHY/STA, to make up the total of 8 full-course equivalents.

## Minor program:

(4 full courses or their equivalent)
I. AST $22 \mathrm{IHI}, 222 \mathrm{HI}, 320 \mathrm{HI}, 325 \mathrm{HI} / 326 \mathrm{Y} \mathrm{I}$
2. PHY I $38 \mathrm{YI} / \mathrm{I} 40 \mathrm{Y} \mathrm{I}$
3. PHY 252 HI and one of PHY $225 \mathrm{HI}, 25 \mathrm{IHI}, 255 \mathrm{HI}, 256 \mathrm{HI}$

Please note:
PHYI38YI/I40YI requires MATI35YI/I37YI/I5IYI and

## PHY252HI requires MAT235YI/237YI/257YI.

## Astronomy \& Physics (Science program)

Consult Departments of Astronomy \& Astrophysics and Physics.

## Specialist program:

(14 full courses or their equivalent, including at least one 400series course)

First Year:
MAT I 37 Y I, $223 \mathrm{HI} / 240 \mathrm{HI}$; PHY I40YI
Second Year:
AST $22 \mathrm{IHI}, 222 \mathrm{HI}$; MAT 237 Y , 244 HI ; PHY $25 \mathrm{IHI}, 252 \mathrm{HI}$, 256HI
Third Year:
I. APM 346 HI ;AST $320 \mathrm{HI}, 325 \mathrm{HI} / 326 \mathrm{Y}$; PHY $225 \mathrm{HI}, 255 \mathrm{HI}$, $35 \mathrm{IHI}, 355 \mathrm{HI}$
2. One of MAT $224 \mathrm{HI}, 327 \mathrm{HI}, 334 \mathrm{HI}, 363 \mathrm{HI}$, STA 257 HI

Fourth Year:
I. AST $420 \mathrm{HI}, 425 \mathrm{YI}$; PHY $352 \mathrm{HI}, 353 \mathrm{HI}$
2. One half course from each of groups $A$ and $B$
3. One additional half course from either group $A$, group $B$ or group C

## Group A:

PHY $357 \mathrm{HI}, 358 \mathrm{HI}, 359 \mathrm{HI}, 495 \mathrm{HI}$
Group B:
PHY $457 \mathrm{HI}, 459 \mathrm{HI}, 460 \mathrm{HI}, 483 \mathrm{HI}, 484 \mathrm{HI}$
Group C:
PHY $407 \mathrm{HI}, 408 \mathrm{HI}, 409 \mathrm{HI}$

## Planetary Sciences Specialist Program - See Planetary Sciences

## Astronomy \& Astrophysics Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes, all AST courses are classified as SCIENCE courses (see page 27).

## SCII99HI/YI First Year Seminar

$52 S$
Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course; see page 47.

## ASTIOIHI The Sun and Its Neighbours 26L

Our place in the Universe. Phenomena we see in the sky. What we know about the Sun, the planets and comets, and the formation of the solar system - and how we know it. What makes planets suitable for life. Finding out about the nearest stars and their planets.
This course is intended for students with no science or engineering background.
Exclusion:ASTI $21 \mathrm{HI}, 210 \mathrm{HI}, 22 \mathrm{IHI}$. Also excluded are CIVIOIHI, any IOO- or higher-series CHM/PHY courses taken previously or concurrently (with the exception of PHYI00HI, IOIHI, 20IHI, 205HI, CHM200YI)

## ASTI2IHI Origin and Evolution of

 the UniverseThe origin of the Universe, the origin of the chemical elements, the origin of stars and galaxies, the origin of life in the Universe. This course is intended for students who are enrolling in science courses.
Exclusion: ASTIOIHI, 201HI, 210 HI . Also excluded are AST $22 \mathrm{IHI}, 222 \mathrm{HI}$ if taken previously or concurrently Prerequisite: OAC Physics/ SPH4U and OAC Calculus/MCB4U

## AST20IHI Stars and Galaxies 26L

What we know about the properties and life cycles of stars, of galaxies, and of the Universe itself - and how we know it. How astronomers develop methods for understanding phenomena that span such vast ranges in distance and time.
This course is intended for students with no science or engineering background.
Exclusion:ASTI2IHI, 210HI.Also excluded are CIVIOIHI and any 100- or higher-series CHM or PHY courses taken previously or concurrently (with the exception of PHYI00HI, $101 \mathrm{HI}, 20 \mathrm{HI}, 205 \mathrm{HI}, \mathrm{CHM} 200 \mathrm{YI}$ )

## AST2IOHI Great Moments in Astronomy 26L

The history of Western astronomy: Copernican Revolution to twentieth century astrophysics. Emphasis is placed on the process of discovery which has led to major advances in knowledge about the Universe. The course ends with an outline of one of the most significant puzzles of our day and an examination of the potential for a new revolution in knowledge in our lifetime.
Exclusion:ASTIOIHI, $12 \mathrm{IHI}, 201 \mathrm{HI}$

## AST22IHI Stars and Planets

Telescopes and instrumentation, concepts in basic physics applied to a treatment of the solar system and stars.
Exclusion: ASTIOIHI/201HI
Prerequisite: PHYI38YI/I40YI, MATI35YI/I37YI

## AST222HI Galaxies and Cosmology

39L
Concepts of basic physics applied to a treatment of stellar systems and the structure of the Universe.
Exclusion:AST20IHI
Prerequisite: AST22IHI
AST25IHI Life on Other Worlds 26L
Scholarly discussion of the probability that there are planets with life elsewhere in the universe, from the perspective of current ideas concerning the origin and evolution of the universe, the solar system and life. Discussion of search techniques and possibilities for interstellar travel and space colonies.
Prerequisite: OAC Biology/OAC Chemistry/OAC Physics/ SBI4U/SCH4U/ SPH4U

## AST299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.
AST320HI Introduction to Astrophysics 26L
The formation, equilibrium and evolution of structure on all astronomical scales from the largest to the smallest: universe, clusters of galaxies, galaxies, clusters of stars, gas clouds and stars.
Prerequisite: AST222HI, PHY252HI

## Astronomy \& Astrophysics

## AST325HI Introduction to Practical

Astronomy
Observational projects in astrophysics involving work with
telescopes and CCD detectors. Principles of photometry. Use
of standard software packages for data reduction and analysis.
Students will be required to use UNIX/Linux operating systems.
Exclusion:AST 326YI
Prerequisite: AST $22 \mathrm{IHI} / 222 \mathrm{HI}, \mathrm{PHY} 25 \mathrm{IHI} / 252 \mathrm{HI} / 255 \mathrm{HI} /$ 256 HI

## AST326YI Practical Astronomy 78P

Observational projects in astrophysics involving work with telescopes and CCD detectors. Principles of photometry and spectroscopy. Use of UNIX/Linux-based software packages for data reduction and analysis. This course is an expanded version of AST 325 HI designed to give students a wider exposure to practical astronomy.
Exclusion:AST 325HI
Prerequisite: AST $22 \mathrm{IHI} / 222 \mathrm{HI}, \mathrm{PHY} 25 \mathrm{IHI} / 252 \mathrm{HI} / 255 \mathrm{HI} /$ 256 HI

AST398H0/ Independent Experiential Study Project 399YO
An instructor-supervised group project in an off-campus setting. See page 47 for details.

## AST425YI Research Topic in Astronomy TBA

A research project done in consultation with an individual staff member in the Department leading to a detailed written report and oral presentation. This course is intended for students in the final year of the Astronomy and Physics specialist program. Students must enrol with the Undergraduate Secretary of the Department.
Prerequisite:Two of PHY $307 \mathrm{HI}, 308 \mathrm{HI}, 309 \mathrm{HI}, 35 \mathrm{HI}, 352 \mathrm{HI}$, $353 \mathrm{HI}, 355 \mathrm{HI}, 357 \mathrm{HI}, 358 \mathrm{HI}, 359 \mathrm{HI}, \mathrm{AST} 325 \mathrm{HI} / 326 \mathrm{YI}$,

## Chemistry

## Faculty

University Professors Emeriti
A.G. Brook, BA, Ph D, FRSC
J.B. Jones, B Sc, Ph D, D Phil, FRSC, FCIC

Professors Emeriti
M. Bersohn, BS, Ph D
G. Burns, B Sc, Ph D
I.G. Csizmadia, Dip Eng, M Sc, Ph D
A.G. Harrison, M Sc, Ph D, FCIC
A.J. Kresge, BA, Ph D, FRSC (University of Toronto Scarborough)
R.A. McClelland, B Sc, Ph D, FRSC (University of Toronto Scarborough)
S. McLean, B Sc, Ph D. FCIC
M. Menzinger, Dip Eng, M Sc, Ph D (SM)
S.C. Nyburg, B Sc, Ph D, D Sc
A.J. Poë, B Sc, MA, Ph D, D Sc, DIC, Sc D, FCIC (University of Toronto Mississauga)
W.F. Reynolds, M Sc, Ph D
E.A. Robinson, B Sc, Ph D, D Sc (University of Toronto Mississauga)
G.H. Schmid, B Sc, Ph D, FCIC
I.W.J. Still, B Sc, Ph D, D Sc (University of Toronto Mississauga)
J.C.Thompson, BA, Ph D (University of Toronto Scarborough)
T.T.Tidwell, B Sc, AM, Ph D, FRSC (University of Toronto Scarborough)
J.P.Valleau, MA, Ph D (I)
A. Walker, B Sc, Ph D (University of Toronto Scarborough)
S.C.Wallace, B Sc, Ph D

Professor and Chair of the Department S.A. Mabury, BS, Ph D (U)

Professor and Associate Chair (Graduate)
G. Walker, BA, Ph D

## Senior Lecturer and Associate Chair

 (Undergraduate)A.P. Dicks, B Sc, Ph D (SM)

## University Professors

P.W. Brumer, B Sc, Ph D, FRSC
G.A. Ozin, B Sc, D Phil, FRSC, FCIC
J.C. Polanyi, M Sc, Ph D, D Sc, FRS, FRSC, FRSEd
M.A.Winnik, BA, Ph D, FRSC

## Professors

J.P.Abbatt, B Sc, Ph D
J. Chin, M Sc, Ph D
D.J. Donaldson, B Sc, Ph D (University of Toronto

Scarborough)
D.H. Farrar, M Sc, Ph D
M. Georges, B Sc, Ph D (University of Toronto Mississauga)
M.C. Goh, BS, Ph D (U)
R.E. Kapral, B Sc, Ph D, FRSC
R.H. Kluger, AM, Ph D, FCIC, FRSC
U.J. Krull, B Sc, Ph D, FCIC (University of Toronto Mississauga)
E. Kumacheva, M Sc, Ph D
M. Lautens, B Sc, Ph D, FCIC, FRSC (T)
P.M. Macdonald, M Sc, Ph D (University of Toronto

Mississauga)
R.J.D. Miller, B S, Ph D, FRSC, FCIC
R.H. Morris, B Sc, Ph D, FRSC, FCIC
J. Powell, B Sc, Ph D, FCIC
M. Thompson, B Sc, Ph D, D Sc, FRSC, FCIC
S.G.Whittington, MA, Ph D (T)
G.A. Woolley, B Sc, Ph D

## Associate Professors

R.A. Batey, BA, Ph D
A. Dhirani, M Sc, Ph D
S.J. Fraser, BA, Ph D (University of Toronto Scarborough)
J. Schofield, BA, Ph D
G.D. Scholes, B Sc, Ph D
F.Wania, B Sc, Ph D (University of Toronto Scarborough)
A. Yudin, BS, Ph D
D.B. Zamble, B Sc, Ph D

## Assistant Professors

U. Fekl, M Sc, Ph D (University of Toronto Mississauga)
V. Dong, B Sc, Ph D
R.A. Jockusch, BA , Ph D
D. McMillen, MA Sc, Ph D (University of Toronto

Mississauga)
J. Murphy, B Sc, Ph D
M. Nitz, B Sc, Ph D
S. Prosser, M Sc, Ph D (University of Toronto Mississauga)
J. Shin, AB, Ph D (University of Toronto Mississauga)
A. J. Simpson, B Sc, Ph D (University of Toronto

Scarborough)
D. Song, B Sc, Ph D
M. Taylor, B Sc, Ph D
A. Wheeler, B Sc, Ph D

## Senior Lecturers

C.S. Browning, M Sc, Ph D (SM)
C.M. Kutas, B Sc, M Ed
D. F. McIntosh, B Sc, Ph D
H.O. Ohorodnyk, M Sc

## Lecturers

K. Quinlan, B Sc, Ph D
D. Stone, B Sc, Ph D

## Tutor

M. Morgan, B Sc

Chemistry is a challenging intellectual pursuit and a dominant force in shaping our civilization. Chemistry places strong emphasis on an understanding of the structures and properties of individual atoms and molecules, and on using this understanding to interpret and predict the behaviour of matter. Many of the concepts of physics, and the methods of mathematics, are basic to chemistry. Chemistry is of fundamental importance to many other subjects including astrophysics, biological sciences, environmental science, geology, materials science, and medical sciences. These and other aspects of the subject are reflected in the courses offered, and the programs recommended by the Department.

The Department has made extensive changes to its course and program offerings in the last few years. These changes included a revision of first year courses, substantial modifications to later-year courses, the introduction of new specialist programs in Biological Chemistry, Materials Chemistry, and in Environmental Chemistry, and more flexibility for students choosing areas of specialization both within chemistry and in combination with other disciplines.

Students can choose between two first year options according to their intended area of specialization.

CHMI5IYI is the course that is strongly recommended for all students who will be following one of the specialist programs involving chemistry, including Biological Chemistry and Environmental Chemistry or who will be including a substantial amount of chemistry in their degree (such as those following a chemistry major program).

The combination of CHMI 38 HI and CHMI 39 HI is recommended for students who intend to take programs in the Life or Health Sciences that do not require a large amount of chemistry. These courses may be taken in any order, and not in the same session.

The outlines of these first year courses, together with those for later-year offerings, are shown in this Calendar. More detailed information is available from the Department, and is posted on the World Wide Web at www.chem.utoronto.ca/undergraduate/ courses/Ist.html. Students who are following programs that contain a substantial number of chemistry courses are strongly advised to take courses in the proper year (i.e. 200 -series in second year, etc.). Following the correct sequence will enhance the level and balance of preparation for all later year courses, and timetable conflicts will be avoided.
Students whose current programs may be affected by the introduction of new or revised chemistry courses are advised to consult the Department at the earliest possible opportunity. Students requiring more information about Chemistry programs and courses are invited to visit or phone the Undergraduate Office, Lash Miller Chemical Laboratories, Room I5I (4I6-9786033).

## Chemistry Programs

## Biological Chemistry (Science program)

Consult Associate Chair, Undergraduate Studies, Department of Chemistry.

Enrolment in this program requires completion of four courses; no minimum GPA required.

## Specialist program:

(13 full courses or their equivalent, including at least two 400series courses)
First Year: BIO I50YI; (CHM I5IYI strongly recommended)/ (I38HI, I39HI); MAT I $35 \mathrm{YI/I37YI;} \mathrm{PHY} \mathrm{I38YI/I40YI}$
Second and Higher Years:
I. BCH 210 HI ; BIO 250 YI ; CHM $225 \mathrm{YI} /(220 \mathrm{HI}$, $22 \mathrm{IHI}), 238 \mathrm{YI}, 247 \mathrm{HI} / 249 \mathrm{HI}(\mathrm{CHM} 249 \mathrm{HI}$ strongly recommended), $347 \mathrm{HI}, 348 \mathrm{HI}, 379 \mathrm{HI}$. CHM2I7HI is recommended.
2. Further 300/400-series courses in BCH or CHM , including CHM $437 \mathrm{HI}, 447 \mathrm{HI}$, and 479 HI to make a total of I 3 full courses. BOT 450 HI is also acceptable.

## Chemical Physics (Science program)

Consult Professor J. Schofield, Department of Chemistry.
Enrolment in this program requires completion of four courses; no minimum GPA required.

## Specialist program:

(14 full courses or their equivalent, including at least I.5 400series courses)
First Year: (CHM I5IYI strongly recommended)/(138HI, I39HI), MAT I37YI/I57YI; PHY I40YI

## Higher Years:

I. APM 346 HI ; CHM $225 \mathrm{YI}, 326 \mathrm{HI}, 327 \mathrm{HI}, 328 \mathrm{HI}$; MAT $223 \mathrm{HI} / 240 \mathrm{HI}, 235 \mathrm{YI} / 237 \mathrm{YI}, 244 \mathrm{HI}, 334 \mathrm{HI} ;$ PHY 25 IHI , $255 \mathrm{HI}, 35 \mathrm{IHI}, 352 \mathrm{HI}$; CHM $423 \mathrm{HI} / \mathrm{PHY}(355 \mathrm{HI}, 457 \mathrm{HI})$
2. Two full course equivalents from CHM $217 \mathrm{HI}, 238 \mathrm{YI}$, $247 \mathrm{HI} / 249 \mathrm{HI}$ (CHM249HI strongly recommended), $3 \mathrm{IOHI}, 3 \mathrm{I} 4 \mathrm{YI} / 3 \mathrm{I} 7 \mathrm{HI}, 338 \mathrm{HI}, 348 \mathrm{HI}, 4 \mathrm{I} 5 \mathrm{HI}$
3. Further 400 -series half-courses in $\mathrm{CHM} / \mathrm{PHY}$ to make a total of 14 full courses

## Chemistry (Science program)

Consult Associate Chair, Undergraduate Studies, Department of Chemistry.
Enrolment in the Specialist, Major and Minor Chemistry programs requires completion of four courses; no minimum GPA required.

## Specialist program:

(13 full courses or their equivalent, including at least three 400series courses)
First Year: (CHM I5IYI strongly recommended)/(138HI, I 39 HI ); MAT I $35 \mathrm{YI} / \mathrm{I} 37 \mathrm{YI}$; PHY I $38 \mathrm{YI/I40YI}$
Second Year: CHM $217 \mathrm{HI}, 225 \mathrm{YI} /(220 \mathrm{HI}$ with minimum grade of B, 22 IHI ), $238 \mathrm{YI}, 249 \mathrm{HI}$; MAT $235 \mathrm{YI} / 237 \mathrm{Y} \mathrm{I}$
Third and Fourth Years:
I. CHM $326 \mathrm{HI} / 328 \mathrm{HI}, 327 \mathrm{HI}$
2. Further $300 / 400$-level full course equivalents in $\mathrm{CHM} /$ MAT/another science, including at least two of CHM $3 \mathrm{I} 4 \mathrm{YI} / 3 \mathrm{I} 7 \mathrm{HI}, 326 \mathrm{HI} / 328 \mathrm{HI}, 338 \mathrm{HI}, 343 \mathrm{HI} / 346 \mathrm{HI} / 348 \mathrm{HI}$, 379 HI and at least three 400 -level CHM full course equivalents to make a total of 13 full courses.

## Major program:

(8 full courses or their equivalent)
First Year: (CHM I5IYI strongly recommended)/(138HI, I39HI); MAT I35YI/I37YI
Second Year: At least two of CHM 2I7HI, 220HI/225YI, 238YI, $247 \mathrm{HI} / 249 \mathrm{HI}$ (CHM249HI strongly recommended)
Third Year:At least two of CHM $3 \mathrm{I} 4 \mathrm{YI} / 3 \mathrm{I} 7 \mathrm{HI}, 327 \mathrm{HI}, 338 \mathrm{HI}$, $(343 \mathrm{HI} / 346 \mathrm{HI}) / 348 \mathrm{HI}, 379 \mathrm{HI}$
Fourth Year: Further 200/300/400-level CHM courses to make a total of seven CHM full course equivalents (CHM 299YI excluded)

## Minor program:

(4 full courses or their equivalent, including at least one fullcourse equivalent at the 300+ level))
First Year: CHM I5IYI/(I38HI, I 39 HI )
Second Year: At least one of CHM 2I7HI, 220HI/225YI, 238YI, $247 \mathrm{HI} / 249 \mathrm{HI}(\mathrm{CHM} 249 \mathrm{HI}$ strongly recommended)
Third Year: At least one of CHM $314 \mathrm{YI} / 3 \mathrm{I} 7 \mathrm{HI}, 327 \mathrm{HI}, 338 \mathrm{HI}$, $343 \mathrm{HI} / 346 \mathrm{HI}, 348 \mathrm{HI}, 379 \mathrm{HI}$

Fourth Year: Further 200/300/400-level CHM courses to make a total of four CHM full course equivalents

## Chemistry and Geology (Science program)

Consult Associate Chair, Undergraduate Studies, Department of Chemistry, and Professor J. Mungall, Department of Geology.
Enrolment in this program requires completion of four courses; no minimum GPA required.

## Specialist program:

(12 full courses or their equivalent, including at least one 400series course)
First Year: (CHM I5IYI strongly recommended) $/(138 \mathrm{HI}$, I39HI); MAT I35YI/I37YI; PHY I38YI/I40YI*
Second Year: CHM 2I7HI, 238YI; GLG 206HI, 207HI, $216 \mathrm{HI} / 217 \mathrm{HI}$
Third and Fourth Years:
I. CHM 225YI, 247HI/249HI (CHM249HI strongly recommended), $338 \mathrm{HI}, 3 \mathrm{I} 4 \mathrm{YI} / 3 \mathrm{I} 7 \mathrm{HI} /(343 \mathrm{HI} / 346 \mathrm{HI}) /$ 348 HI
2. Two 400 -series half-courses in CHM; GLG $318 \mathrm{HI}, 340 \mathrm{HI}$
3. Three $300+$ series half-courses in GLG

* GLG $I I O H I$ is recommended but not required in the program


## Environmental Chemistry (Science program)

Consult Professor J.Abbatt, Department of Chemistry
Jointly sponsored by the Centre for Environment and the Department of Chemistry, this program focuses on the development of a fundamental background in chemistry as applied to understanding the chemical impacts of humankind's activities on the soil, air, and water. Emphasis is given to developing analytical skills and mechanistic understanding of the subject.
Enrolment in this program is limited. It requires prior completion of 4 courses with a minimum GPA of 2.3. Three courses must be from the First Year list. Apply through the Centre for Environment by: Ist Round:TBA; 2nd Round:TBA at: www.artsci.utoronto.ca/current/undergraduate.

## Specialist program:

(I3.5 full courses or their equivalent, including at least one 400series course)
Jointly sponsored by the Centre for Environment and the Department of Chemistry, this program focuses on analytical theory, instrumentation and methodological aspects of organic and inorganic contaminants in soil, water, air and biological tissues.

First Year: BIO I50YI; (CHM I5IYI strongly recommended)/ (I38HI, I39HI); MAT I35YI/I37YI; PHY I38YI/I40YI
Second Year: CHM 2I7HI, 225YI/(220HI, 22IHI), 238YI, $247 \mathrm{HI} / 249 \mathrm{HI}$ (CHM249HI strongly recommended); ENV 235 YI
Third and Fourth Years:
I. CHM $3 \mathrm{IOHI}, 4 \mathrm{IOHI}, 4 \mathrm{I} 5 \mathrm{HI}$; ENV 234YI, ENV $32 \mathrm{IYI} /(\mathrm{JGE}$ 22IYI/JIE222YI)
2. One additional FCE from 300/400-series CHM courses
3. (JIE $4 \mathrm{IOHI}, \mathrm{ENV} 42 \mathrm{IHI}) / \mathrm{CHM} 409 \mathrm{YI} / 4 \mathrm{I} 8 \mathrm{YI} / 428 \mathrm{YI} /$ 439YI*/449YI
*CHM 439YI has the prerequisite CHM 438HI

## Minor program:

(4 full courses or their equivalent; must include at least one fullcourse equivalent at the $300+$-level)
I CHM $(138 \mathrm{HI}, \mathrm{I} 39 \mathrm{HI}) / 15 \mathrm{IYI}$
2. One full course equivalent from $\mathrm{CHM} 2 I 7 \mathrm{HI},(220 \mathrm{HI}$, $22 \mathrm{IHI}) / 225 \mathrm{YI}, 238 \mathrm{YI}, 247 \mathrm{HI} / 249 \mathrm{HI}$
3. ENV235Y
4. Any two of CHM $310 \mathrm{HI}, 410 \mathrm{HI}, 4 \mathrm{I} 5 \mathrm{HI}$

## Materials Chemistry Program - See Materials Science

## Pharmaceutical Chemistry - See Pharmaceutical

 Chemistry
## Planetary Science Program - See Planetary

 Science
## Chemistry Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes, all CHM courses are classified as SCIENCE courses (see page 27).

## SCII99HI/YI First Year Seminar

26L/52L
Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newlyadmitted first year students. It may serve as a distribution requirement course; see page 47.

## CHMI38HI Introductory Organic 39L, I8P, I2T Chemistry I

An introduction to principles of structure and their relation to reactivity of organic molecules: molecular structure, stereochemistry, functional groups, and reactions. Recommended for students in life and health science programs that involve a small amount of chemistry
NOTE: CHMI 38 HI and 139 HI may be taken in either order, but not both in the same session.
Exclusion: CHM I5IYI, CHM242H5, CHMB4IH3, CHMB42H3
Prerequisite: Chemistry SCH4U, Mathematics MCB4U
Co-requisite: MATI35YI/I37YI/I57YI recommended, but may be required pre-requisite in 2nd year Chemistry courses; PHYI38YI/I40YI recommended

## CHMI39HI Chemistry: Physical 39L, I8P, I2T

 PrinciplesStructure of matter, gases, liquids and solids; phase equilibria and phase diagrams; colligative properties; chemical equilibria; electrolyte solutions and electrochemistry; reaction kinetics; introduction to thermodynamics. Recommended for students in life and health science programs that involve a small amount of chemistry
NOTE: CHMI 38 HI and 139 HI may be taken in either order, but not both in the same session.
Exclusion: CHM I5IYI, CHMAIOH3, CHMAIIH3, CHMI40Y5
Prerequisite: Chemistry SCH4U, Mathematics MCB4U
Co-requisite: MATI35YI/I37YI/I57YI recommended, but may be required pre-requisite in 2nd year Chemistry courses; PHYI38YI/I40YI recommended

## CHMISIYI Chemistry:The Molecular 78L, 35P, 26T

## Science

An introduction to the major areas of modern chemistry, including organic and biological chemistry; physical chemistry and chemical physics; and inorganic/materials chemistry. The course is intended for students who will be following one of the chemistry specialist programs (including Biological Chemistry and Environmental Chemistry) or who will be including a substantial amount of chemistry in their degree (such as those following a chemistry major program). The combination of CHMI5IYI and CHM249HI serves as a full year introductory course in organic chemistry with laboratory.
Note: Students taking Chemistry and Physics may schedule the labs on alternate weeks. CHMISIYI has a unique
"Course Community" where the undergraduate experience in chemistry is greatly enhanced through a series of workshops, research seminars, tours, outreach opportunities and social activities. Two hour biweekly Course Community meetings, during laboratory class hours (3:00-5:00 p.m.) will alternate weeks with the CHMI5IYI lab classes. The lab time is reserved for CHMI5IYI activities every week of each semester.
Exclusion: CHM (I38HI, I39HI), CHMI40Y5, CHMAIOH3, CHMAIIH3
Prerequisite: Chemistry SCH4U, Mathematics MCB4U; Physics SPH4U recommended
Co-requisite: MATI35YI/I37YI/I57YI; PHYI38YI/I40YI
CHM2I7HI Introduction to Analytical 26L, 52P, I3T Chemistry
Introduction to the science of chemical measurement, from sampling through analysis to the interpretation of results, how water, food products, pharmaceuticals, and dietary supplements are analysed for content, quality, and potential contaminants. Also how to interpret experimental measurements, compare results and procedures, and calibrate analytical instrumentation. Through closely integrated lectures, laboratories, and tutorials, this highly practical course will introduce you to a variety of analytical techniques including volumetric methods, potentiometry, uv/visible and infrared spectrophotometry, flame atomic absorption spectrometry, and chromatography.
Prerequisite: $\mathrm{CHM}(138 \mathrm{HI}, 139 \mathrm{HI}) / I 5 \mathrm{IYI}$ with a minimum
grade of $63 \%$, or permission from the department

## CHM220HI Physical Chemistry for 39L, I3T

 Life SciencesIntroduction to thermodynamics; phase equilibrium, properties of mixtures, chemical equilibrium, electrochemistry; introduction to quantum mechanics and spectroscopy. This course is recommended for students in life and health science programs that involve a small amount of chemistry. Students enrolled in any chemistry specialist programs (including Biological Chemistry and Environmental Chemistry) or who will be including a substantial amount of chemistry in their degree (such as those following a chemistry major program), are strongly encouraged to take CHM225YI.
Exclusion: CHM 225YI, 221H5
Prerequisite: $\mathrm{CHM}(138 \mathrm{HI}, 139 \mathrm{HI}) / I 5 \mathrm{IYI}$; MATI35YI/I37YI/ I57YI
Recommended co-requisite: MAT235YI/237YI
CHM22IHI Physical Chemistry:The 26L, I3T
Molecular Viewpoint
A continuation of CHM 220 HI for students wishing to take some additional material in Physical Chemistry. The course
covers topics in quantum mechanics and spectroscopy as well as an introduction to reaction kinetics.

## Exclusion: CHM 225YI, 221H5

Prerequisite: CHM 220 HI with a minimum grade of B , or permission from the department
Co-requisite: MAT235YI/237YI recommended, but may be required pre-requisite in 3rd year Chemistry courses

## CHM225YI Introduction to Physical 52L, 26T Chemistry

Topics: introductory thermodynamics, first and second law and applications; chemical equilibrium; chemical kinetics; introductory quantum mechanics; spectroscopy. The course is intended for students who will be following one of the chemistry specialist programs (including Biological Chemistry and Environmental Chemistry) or who will be including a substantial amount of chemistry in their degree (such as those following a chemistry major program).
Exclusion: CHM $220 \mathrm{HI}, 221 \mathrm{HI}, 22 \mathrm{IH} 5$
Prerequisite: $[\mathrm{CHM}(138 \mathrm{HI}, 139 \mathrm{HI}) / 15 \mathrm{I} \mathrm{Y}$ I with a minimum grade of $63 \%$, or permission from the department], MATI35YI/I37YI/I57YI, PHYI38YI/I40YI
Co-requisite: MAT235YI/237YI
ENV235YI Physics and Chemistry of 52L, 26T

## Planet Earth

(see Centre for Environment)
This course considers the fundamental chemical and physical processes of the Earth's natural environment. The first semester of the course focuses primarily on the atmosphere: its evolution, structure, composition and dynamical character. Particular emphasis is given to a discussion of global climate and the underlying physical, chemical and biogeochemical factors that drive climate change. Within this context, stratospheric ozone depletion, ocean chemistry, urban air pollution, acid rain and water quality are also discussed. The second semester focuses on the solid Earth: its formulation and evolution, internal dynamics, mantle-core differentiation, volcanism, tectonics and paleoclimate/ice ages. Throughout the course, the operation of the Earth as a coupled physico-chemical system over a range of timescales is emphasized.
Prerequisite: $\mathrm{CHM}(138 \mathrm{HI}, 139 \mathrm{HI}) / I 5 \mathrm{Y} \mathrm{Y}$, MATI35YI/I37YI/
JMBI70YI, PHYI38YI/I40YI

## CHM238YI Introduction to 52L, 52P

 Inorganic ChemistryThe first part (with CHM338HI) of a two-year sequence in Inorganic Chemistry, designed to illustrate and systematize the rich variety of structures, physical properties and reactions of compounds of the elements across and down the Periodic Table. Introduction to structure, symmetry and bonding of molecules and lattices; acid-base and redox reactions; d-metal complexes; systematic chemistry of metals and elements of the $s$ and $p$ blocks; inorganic materials and solid state chemistry with applications in advanced technologies.
Prerequisite: $\mathrm{CHMI} 5 \mathrm{IYI} /(\mathrm{I} 38 \mathrm{HI}, \mathrm{I} 39 \mathrm{HI})$ with a minimum grade of $63 \%$, or permission from the department

## CHM247HI Introductory Organic 39L, 22P, I2T Chemistry II

Reactions of organic compounds. Principles of mechanism, synthesis, and spectroscopy, continuing from CHM 138 HI . This course is recommended for students in life and health science programs that involve a small amount of chemistry. Students enrolled in any chemistry specialist programs (including Biological Chemistry and Environmental Chemistry) or who
will be including a substantial amount of chemistry in their degree (such as those following a chemistry major program). are strongly encouraged to take CHM249HI.Tutorial (I2T) is optional.
Exclusion: CHM249HI, CHM242H5, CHM243H5, CHMB4IH3, CHMB42H3
Prerequisite: $\mathrm{CHM}(138 \mathrm{HI}, 139 \mathrm{HI}) / I 5 \mathrm{IY} \mid$

## CHM249HI Organic Chemistry 39L, 48P

An introductory course in organic chemistry, based around the themes of structure, bonding, reaction mechanism and synthesis. Reactions are discussed with a view to understanding mechanism and how they are useful in the multi-step synthesis of medicinally and industrially important compounds. An introduction to the spectroscopy of organic molecules is also given, as well as discussion of topics relating to the biological behaviour of organic molecules and medicinal chemistry. This course continues from CHM I5IYI or CHM 138 HI and is designed for students in the chemistry specialist and major programs. This course is highly recommended for students in the Biological Chemistry program.
Exclusion: CHM247HI, CHM242H5, CHM243H5, CHMB4IH3, CHMB42H3
Prerequisite: CHMI5IYI/(I38HI, I 39 HI$)$ with a minimum grade of $63 \%$, or permission from the department

## CHM299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.

## CHM3IOHI Environmental Chemistry 26L

Major chemical pollutants and their sources, the environmental reactions they undergo, and how they become distributed throughout the environment. Focus is on the principal routes of chemical and biological degradation of toxicants; oxidation, photodegradation, hydrolysis, reduction, biotic metabolism, and microbial degradation. The principal physical processes by which chemicals move, concentrate, and dissipate.
Prerequisite: CHM247HI/249HI

## CHM3I7HI Introduction to Instrumental 26L, 52P

 Methods of AnalysisScope of instrumental analytical chemistry; Fourier transform IR absorption spectroscopy; molecular luminescence; emission spectroscopy; mass spectroscopy, electrochemical techniques; sensors; gas and high performance liquid chromatography; instrument design principles and applications in industry and the environment.
Prerequisite: CHM2I7HI with a minimum grade of $63 \%$, or permission from the department
Recommended preparation: CHM $(220 \mathrm{HI}, 22 \mathrm{IHI}) / 225 \mathrm{Y}$ I

## CHM325HI Introduction to Inorganic 26L and Polymer Materials Chemistry

Fashioned to illustrate how inorganic and polymer materials chemistry can be rationally used to synthesize superconductors, metals, semiconductors, ceramics, elastomers, thermoplastics, thermosets and polymer liquid crystals, with properties that can be tailored for applications in a range of advanced technologies. Coverage is fairly broad and is organized to crosscut many aspects of the field.
Prerequisite: CHM $220 \mathrm{HI} / 225 \mathrm{YI}, 238 \mathrm{YI}, 247 \mathrm{HI} / 249 \mathrm{HI}$

## CHM326HI Introductory Quantum <br> 26L

 Mechanics and SpectroscopyThis course introduces the postulates of quantum mechanics to develop the fundamental framework of quantum theory.A number of exactly soluble problems are treated in detail as
examples. Perturbation theory is introduced in the context of understanding many body problems. Various applications to chemical bonding and molecular spectroscopy are covered in

## detail.

Prerequisite: CHM225YI/(CHM 220HI, 22IHI), MAT235YI/ 237YI

## CHM327HI <br> Experimental Physical <br> 13L, 52P

Students are exposed to experiments to help them experience modern physical chemistry. Labs designed to illustrate physical chemistry principles and practical techniques as well as their real world state of the art applications. The course also involves some lecture material to broaden the laboratory experience.
Prerequisite: $\mathrm{CHM} 225 \mathrm{YI} /(\mathrm{CHM} 220 \mathrm{HI}, 22 \mathrm{IHI})$ with a minimum grade of $65 \%$, or permission from the department Recommended co-requisites: CHM326HI or CHM328HI

## CHM328HI Modern Physical Chemistry <br> 26L

This course explores the microscopic description of macroscopic phenomena in chemistry. Statistical mechanics is introduced as the bridge between the microscopic and macroscopic views, and applied to a variety of chemical problems including reaction dynamics. More advanced topics in thermodynamics are introduced and discussed as required. Prerequisite: CHM $225 \mathrm{YI} /(\mathrm{CHM} 220 \mathrm{HI}, 22 \mathrm{IHI})$, MAT235YI/ 237Y1
CHM338HI Intermediate Inorganic 26L, 52P Chemistry
Further study of the structures, physical properties and reactions of compounds of the main group elements and the transition metals. Introductions to spectroscopy and structural analysis, reaction mechanisms, $d$ - and $f$ - block organometallic compounds, catalysis, structures of solids and bioinorganic chemistry. The weekly laboratory demonstrates aspects of transition metal chemistry.
Prerequisite: CHM238YI with a minimum grade of $65 \%$, or
permission from the department
Recommended Preparation: CHM2I7HI, 247HI/249HI
CHM342HI Modern Organic Synthesis 26L (formerly CHM345HI)
An overview of the preparation of various classes of organic compounds. Strategies and tactics of synthetic organic chemistry using examples from natural products and pharmaceuticals. C-C bond formation, functional group reactivity, structure, stereochemistry and selectivity.
Exclusion: CHM345HI, CHM346HI
Prerequisite: CHM247HI/249HI
CHM343HI Organic Synthesis Techniques 26L, 52P This laboratory course showcases modern organic synthesis techniques and introduces chemical research principles. It provides excellent preparation for a 400 -level research project in organic chemistry. Associated lectures teach theory and problem-solving approaches from a practical perspective.

## Exclusion: CHM346HI

Prerequisite: CHM247HI/249HI with a minimum grade of $65 \%$, or permission from the department

## CHM347HI Organic Chemistry of 26L, I3T

 Biological CompoundsAn organic chemical approach to the structure and reactions of major classes of biological molecules: carbohydrates, amino acids, peptides and proteins, phosphates, lipids, heterocycles, vitamins, nucleotides and polynucleotides. This is achieved through studies of advanced stereochemistry, chemical
modification, reactions and synthesis. In addition to lectures and reading from texts, there will be opportunities for independent written assignments on several of the topics.
Prerequisite: CHM247HI/249HI
Recommended preparation: CHM2I7HI
CHM348HI Organic Reaction Mechanisms 26L, 26P
An advanced survey of principles and methods that deal with organic chemical structure and reactivity: advanced stereochemistry, conformational analysis, reaction kinetics, isotope effects, mechanistic approaches, applications of free energy relationships, orbital transformations, systematization of mechanisms, testing hypotheses.
Prerequisite: CHM247HI/249HI with a minimum grade of $65 \%$, or permission from the department
CHM379HI Biomolecular Chemistry 26L, 48P
This course provides an opportunity to learn core techniques in biological chemistry in a small group laboratory setting. Lectures will discuss the theory behind the techniques and highlight how they are used in current biological chemistry research and practice.
Exclusion: $\mathrm{BCH} 370 \mathrm{HI}, \mathrm{BCH} 37 \mathrm{IHI}$
Prerequisite: (CHM247HI/249HI, with a minimum grade of
$65 \%$, or permission from the department), $347 \mathrm{HI}, \mathrm{BCH}$ 210 HI
Recommended preparation: CHM2I7HI

## CHM398H0/ Independent Experiential Study Project

 399Y0An instructor-supervised group project in an off-campus setting. See page 47 for details.

## CHM409YI Introduction to Research in 260P Environmental Chemistry

An experimental or theoretical research problem under the supervision of a member of staff. Applications for enrolment should be made to the Department in the preceding Winter Session.
Exclusion: CHM4I8YI/428YI/439YI/449YI
Prerequisite: Permission of Department
Recommended preparation: CHM3I4YI/3I7HI

## CHM4IOHI Analytical Environmental 26L, 32P Chemistry

An analytical theory, instrumental, and methodology course focused on the measurement of pollutants in soil, water, air, and biological tissues and the determination of physical/chemical properties including vapour pressure, degradation rates, partitioning. Lab experiments involve application of theory. Prerequisite: CHM 3 IOHI
Recommended preparation: CHM3I4YI/3I7HI

## CHM4I4HI Developing Techniques in Analytical Chemistry <br> Current research in analytical chemistry with emphasis on

 rapidly emerging techniques. Course topics chosen from biosensor technology, transducer theory and operation, device design and fabrication, surface modification and methods of surface analysis, flow injection analysis and chemometrics. Recommended preparation: CHM2I7HI/3I4YI/3I7HI
## CHM4I5HI Atmospheric Chemistry

This course considers the chemistry occurring in the Earth's atmosphere, with emphasis on developing molecular-level understanding of the photochemistry, free-radical kinetics, and heterogeneous chemistry that occurs. Topics include stratospheric ozone depletion, trace gas oxidation, urban air
pollution, acid rain, and the connections between aerosols and climate.
Prerequisite: CHM220HI/225YI/3IOHI
Recommended preparation: MATI35YI/I37YI; PHY
I38YI/I40YI

## CHM4I6HI Separation Science <br> 26L

Principles of separation in analytical chemistry. Fractionation processes and solvent extractions; theory of chromatography, retention time, column efficiency and resolution. Principles of gas-liquid chromatography; instrumentation for gas chromatography. High performance liquid chromatography practice and equipment design. lon exchange, size-exclusion and affinity chromatography. Electrophoretic techniques. Prerequisite: CHM3I4YI/3I7HI

## CHM4I7HI Instrumentation for Chemists

 26LBasic understanding of components used in machines conventionally applied to chemical analysis and research. Electronic circuits and measurement; optical components; analog-digital conversion; lock-in amplifiers and frequency counters; interfaces for data acquisition and LabView; signal control.
Prerequisite: CHM 317 HI

## CHM4I8YI Introduction to Research in 260P Analytical Chemistry

An experimental or theoretical research problem under the supervision of a member of staff.Applications for enrolment should be made to the Department in the preceding Winter Session.
Exclusion: CHM409YI/428YI/439YI/449YI
Prerequisite: Permission of Department Recommended preparation: CHM3I4YI/3I7HI

## CHM42IHI Chemical Kinetics \& Dynamics 26L

The course provides an introduction to I) molecular reaction dynamics (potential energy surfaces, bimolecular collisions, dynamics of bimolecular and unimolecular reactions, transition state theory) and to the modern tools (often laser based) to explore such dynamics, 2) relation of dynamics to classical chemical kinetics (rate, rate laws and mechanisms), 3) modern methods to control molecular processes.
Prerequisite: CHM (326HI, 328 HI )

## CHM423HI Applications of Quantum Mechanics

Applications of time independent and time dependent perturbation theory to atomic and molecular problems, selection of topics from WKB approximation and the classical limit; the interaction of light with matter; elementary atomic scattering theory; molecular bonding.
Prerequisite: CHM326HI
Recommended preparation: MAT223HI

## CHM426HI Polymer Chemistry

Scope of polymer chemistry. Classification of polymers.
Synthesis and characterization. Polymers in solution.
Thermodynamics of polymer solutions and blends, Flory-
Huggins theory. Polymers in the solid state. Crystalline and amorphous polymers. Glass transition and melting temperature. Mechanical properties. Polymers as advanced materials.
Prerequisite: CHM 325 HI ; two of CHM $328 \mathrm{HI}, 338 \mathrm{HI}, 348 \mathrm{HI} /$ permission of the instructor

## CHM427HI Statistical Mechanics 26L

Ensemble theory in statistical mechanics. Applications, including imperfect gases and liquid theories. Introduction to nonequilibrium problems.

## Prerequisite: $\mathrm{CHM}(326 \mathrm{HI}, 328 \mathrm{HI})$

## CHM428YI Introduction to Research in Physical Chemistry

An experimental or theoretical research problem under the supervision of a member of the Physical Chemistry staff. Enrolment in this course may be restricted and must be approved by the Department. Applications for enrolment should be made to the Department in the preceding Winter Session. Exclusion: CHM409YI/4I8YI/439YI/449YI
Prerequisite: CHM326HI/328HI, CHM327HI, permission of Department

CHM432HI Organometallic Chemistry 26L and Polymer Materials Chemistry
Structure, bonding, and reactions of organometallic compounds, with emphasis on basic mechanisms, and industrial processes. Addition, metalation, substitution, elimination, important catalytic cycles, electrophilic, and nucleophilic reactions are considered on a mechanistic basis. Properties of $s$ and $p$ block organometallics.
Prerequisite: CHM338HI
Recommended preparation: CHM348HI
CHM434HI Advanced Materials Chemistry 26L
A comprehensive investigation of synthetic methods for preparing diverse classes of inorganic materials with properties intentionally tailored for a particular use. Begins with a primer on solid-state materials and electronic band description of solids followed by a survey of archetypical solids that have had a dramatic influence on the materials world, some new developments in materials chemistry and a look at perceived future developments in materials research and technology. Strategies for synthesizing many different classes of materials with intentionally designed structures and compositions, textures and morphologies are then explored in detail emphasizing how to control the relations between structure and property of materials and ultimately function and utility. A number of contemporary issues in materials research are critically evaluated to appreciate recent highlights in the field of materials chemistry - an emerging sub-discipline of chemistry. Prerequisite: CHM325HI, 338HI

## CHM437HI Bio-Inorganic Chemistry 26L

Essential elements in biology; naturally occurring and medicinal ligands; transport, uptake and control of concentration of metal ions; physical methods of characterization of metal binding sites. Roles of metal ions: as structural and signaling elements in proteins, nucleic acids and DNA-binding complexes and proteins; as Lewis-acid centres in enzymes; as carriers of electrons, atoms and groups in redox proteins and enzymes; as sources of biominerals; as radiopharmaceuticals.

## Prerequisite: CHM238YI

Recommended preparation: CHM338HI (strongly
recommended), CHM347HI/379HI

## CHM438HI Advanced Inorganic and Materials I30P Chemistry Laboratory

The 4-week format of the lab bridges the gap between typical undergraduate labs and the realities of academic and industrial research and provides an exceptional educational opportunity for students intending to do honours research projects or considering going on in graduate studies. The lab is open throughout the day for the first four weeks of the fall term and instructional staff are available during this time to provide guidance on an individual basis. Applications for enrolment should be made to the Department in the preceding Winter Session.
Prerequisite: Chemistry Specialist students: CHM238Y,
CHM338HI and permission of Department. Materials

Science Specialist students: CHM238Y, CHM325H and permission of Department

## CHM439YI Introduction to Research in 260P

 Inorganic ChemistryAn experimental or theoretical research problem under the supervision of a staff member.Applications for enrolment should be made to the Department in the preceding Winter Session.
Exclusion: CHM409YI/4I8YI/428YI/449YI
Prerequisite: Permission of Department
Co-requisite: CHM 438 HI

## CHM440HI The Synthesis of Modern

 26L Pharmaceutical AgentsThis course provides an overview of reactions and synthetic strategies that are being used at different stages of the drug development process. Using representative examples from the literature, we will concentrate on synthesis of complex heterocyclic compounds.

## Prerequisite: $\mathrm{CHM} 342 \mathrm{HI} / 345 \mathrm{HI} / 346 \mathrm{HI}$

## CHM44IHI Spectroscopic Analysis in 26L, 6P Organic Chemistry

Structure and stereochemistry determination using modern spectroscopic techniques. Several techniques are discussed but particular emphasis is given to NMR (IH and I3C NMR) and mass spectrometry. The approach taken emphasizes applications of these spectroscopic methods to organic problems. Students are trained to run their own spectra (IR, UV, NMR, GC-MS). Prerequisite: CHM $342 \mathrm{HI} / 343 \mathrm{HI} / 345 \mathrm{HI} / 346 \mathrm{HI} / 348 \mathrm{HI}$

## CHM443HI Physical Organic Chemistry 26L

Methods for the determination of organic reaction mechanisms, both in a kinetic and non-kinetic sense. Topics include reactive intermediates, product identification, structure/reactivity relationships, solvent effects, kinetic isotope effects and acid/ base catalysis
Prerequisite: CHM220HI/225YI, 348 HI
CHM447HI Bio-organic Chemistry
Applications of organic chemistry and physical organic chemistry to the study of biologically important processes. Topics include kinetics and mechanisms of enzyme catalysis, chemistry of co-enzymes, drug and inhibitor design, catalytic antibodies.
Prerequisite: $\mathrm{BCH} 2 \mathrm{IOHI} / 242 \mathrm{YI} / 3 \mathrm{IOHI} / 32 \mathrm{IYI} / \mathrm{CHM} 379 \mathrm{HI} /$ 347 HI
Recommended preparation: CHM348HI

| CHM449YI | Introduction to Research in 260P <br> Organic Chemistry |
| :--- | :--- |

An experimental research problem under the supervision of a faculty member. Applications for enrolment should be made to the Department in the preceding Winter Session. Projects in the areas of synthetic, physical and bio-organic chemistry are offered.
Exclusion: CHM409YI/4I8YI/428YI/439YI
Prerequisite: Permission of Department
Recommended preparation: CHM343HI/346HI/348HI/379HI
CHM479HI Biological Chemistry 26L
An in depth examination of biological systems at the molecular level. Several complex, multi-component molecular machines with a central role in life will be examined. For each system studied, the focus will be on understanding the chemical mechanisms that underlie the biological activities, and how these processes fit into a cellular context.
Prerequisite: $\mathrm{CHM} 447 \mathrm{HI}, \mathrm{BCH} 2 \mathrm{IOHI} / 242 \mathrm{Y}$ I

## Classics

## Faculty

## Professors Emeriti

R.L. Beck, AM, Ph D (University of Toronto Mississauga)
A. Dalzell, B Litt, MA
J.N. Grant, MA, Ph D

Rev. M.O. Lee, MA, Ph D
C.J. McDonough, MA, Ph D
W.E. McLeod, AM, Ph D
D.P. de Montmollin, $D$ ès $L$
M.J. O'Brien, MA, Ph D
K.F. Quinn, MA
J.M. Rist, MA, FRSC
E.I. Robbins, MA, Ph D
T.M. Robinson, B Litt, D Litt
A. E. Samuel, MA, Ph D
R.M.H. Shepherd, MA
D.F.S. Thomson, MA
J.S. Traill, AM, Ph D

## Chair of the Department <br> TBA

## Professor and Associate Chair, Graduate <br> Affairs <br> C.F.M. Bruun, MA, Ph D <br> Professor and Undergraduate Coordinator A.R. Jones, BA, Ph D, FRSC

University Professor
E.J.Weinrib, AM, Ph D (Cecil A.Wright Professor of Law)

## Professors

T.D. Barnes, MA, D Phil, FRSC
M.J. Dewar, MA, D Phil
B.C. Inwood, MA, Ph D, FRSC (Canada Research Chair)
A.M. Keith, MA, Ph D
J.C. Magee, MA, Ph D

## Associate Professors

R. Barney, BA, Ph D (Canada Research Chair)
J.S. Burgess, MA, Ph D
H. J. Mason, AM, Ph D
C.I. Rubincam, BA, Ph D (University of Toronto Mississauga)
V.Wohl MA, PhD

## Assistant Professors

B. Akrigg BA, PhD
A.E. Bendlin, MA, D Phil (University of Toronto

Mississauga)
M. Cottier, L ès L, D Phil
E. Lytle BA, PhD
M. Revermann, MA, D Phil (University of Toronto Mississauga)

The field of Classics is concerned with the languages, literature, philosophy, myth, religion, politics, and history of Greece and Rome. For the linguist, Greek provides an unbroken tradition from the earliest to modern times, while Latin is the parent of the Romance languages.

Students and lovers of literature are introduced to works in every genre which have contributed form, content, and critical standards to every European literature. The philosopher encounters the seminal ideas of European philosophy clearly and simply expressed. The political scientist observes a people passionately interested in the theory and practice of politics who explored the possibilities of elitist governing groups, despotism, and democracy, singly and in a variety of combinations, in national, federal, and imperial contexts. The student of religion discovers a rich variety of religious experience, interesting in itself and for its formative influence upon Christianity and Islam. The historian surveying an entire civilization can compare it with our own and can trace the evolution of a great social experiment from its first creative phase through its mature achievement to its final period of consolidation and obsolescence. Our understanding of the present is enhanced by understanding these formative influences from the past.

The Department of Classics welcomes students of all academic backgrounds who wish to take courses in the field but do not wish to specialize in Classical Studies. Even without knowing Greek or Latin, students can profitably study Greek and Roman history or Greek and Latin literature in translation - two areas combined under the designation CLA (for Classical Civilization courses) below. Similarly, the Major and Minor Programs in Classical Civilization presuppose no knowledge of the classical languages.

Advanced work in Greek and Latin does require study of the basic language courses in sequence. These are listed below under the designations GRK (for Greek courses) and LAT (for Latin courses).

The Department of Classics publishes an undergraduate handbook which may be obtained from the departmental office and is published on the internet; this and other information about the Department is available at: http://www.chass. utoronto.ca/classics.

Undergraduate Coordinator:A.R. Jones, 97 St. George Street (undergrad.classics@utoronto.ca)

Enquiries: 97 St. George Street, Room IOI (416-978-5698))
Department of Classics Programs
Enrolment in Classical Civilization programs is limited to students who have completed 2 CLA half-courses with a grade of 65 or above; enrolment in the language programs listed below (Classics, Greek, Latin) is open to students who have completed 4 full course equivalents (FCEs) of any kind; no minimum GPA is required. PLEASE NOTE THAT NOT ALL COURSES ARE OFFERED EVERY YEAR. CONSULT THE CURRENT TIMETABLE OR UNDERGRADUATE HANDBOOK FOR CURRENT COURSE OFFERINGS

## Classics

## NOTES

FCE = "full course equivalent"
I. Approved courses involving the ancient Greek and Roman civilizations in other departments can be substituted for CLA courses; consult the Undergraduate Coordinator.
2. Such CLA substitutions should not exceed 3 FCEs for the Major Classical Civilization program, and 2 FCEs for the Minor Classical Civilization program.
3. GRK or LAT courses may be substituted for 200-level CLA courses: up to 2 FCEs in the Major Classical Civilization program and up to IFCE in the Minor Classical Civilization program.

## Classical Civilization (Arts program)

Major program:
(6 FCEs)
I. CLAl 60 HI
2. 5.5 FCEs of CLA courses at the $200+$ level, including at least 2 FCEs at the $300+$ level

## Minor program:

(4 FCEs)

1. CLAI 60 HI
2. 3.5 FCEs of CLA courses at the 200+ level, including I FCE at the 300+ level

## Classics (Arts program)

## Specialist program:

(13 FCEs)
I. I FCE of CLA courses, including CLAI60HI
2. 12 FCEs of GRK/LAT courses including 5 FCEs in each of GRK and LAT; 4 FCEs of GRK/LAT courses must be at the $300+$ level, and include GRK 330 H , LAT 330 H , and I FCE at the 400-level

## Major program:

(7 FCEs)
I. I FCE of CLA courses, including CLA160HI
2. 6 FCEs of GRK/LAT courses, including 2 FCEs in each of GRK and LAT; 2 FCEs GRK/LAT courses must be at the 300+ level and include GRK/LAT 330HI (both recommended)

## Greek (Arts program)

## Major program:

(6 FCEs)
I. I FCE of CLA courses, including CLAI60HI
2. 4 FCEs of GRK courses; 2 FCEs must be at the $300+$ level, and include GRK330HI
3. I additional FCE of CLA/GRK/LAT courses

## Minor program:

(4 FCEs)
I. I FCE of CLA courses, including CLAI60HI
2. 3 FCEs of GRK courses, of which at least I must be a $300+$ series course

## Latin(Arts program)

## Major program:

(6 FCEs)
I. I FCE of CLA courses, including CLAI60HI
2. 4 FCEs of LAT courses; 2 FCEs must be at the $300+$ level, and include LAT330HI
3. I additional FCE of CLA/GRK/LAT courses

Minor program: (4 FCEs)
I. I FCE of CLA courses, including CLAI 60 HI
2. 3 FCEs of LAT courses, of which at least I must be a 300+ series course

## Department of Classics Courses

For Distribution Requirement purposes (see page 27), all CLA, GRK, and LAT courses are classified as HUMANITIES courses. See page 33 for Key to Course Descriptions.

HUMI99HI/YI First Year Seminar
$52 S$
Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course; see page 47.

## Classical Civilization Courses

NOTE
CLA courses do not require knowledge of Greek or Latin.

## CLAI60HI Introduction to Classical Studies 39L (formerly CLAl60YI)

An introduction to major themes in the development of Greek and Roman civilization, literature and culture.
Exclusion: CLAI60YI

| CLA20IHI | Latin \& Greek in Scientific <br>  <br> Terminology |
| :--- | :--- |

The study of technical and scientific terms derived from Latin and Greek: word elements, formation, analysis. The course is designed to give students in any field of specialization a better grasp of the derivation and basic meaning of English words derived from Latin and Greek elements.
CLA203HI Science in Antiquity 39L
The first scientific traditions in the classical Mediterranean and the Near East, with emphasis on Greek science. Discussions of early physical science, biology, mathematics, and astronomy, and their place in ancient life and thought, based on primary sources in translation. Designed for students in both the sciences and humanities.

CLA204HI Introduction to Classical Mythology 39L
A survey of the myths and legends of ancient Greece (and their extension to Rome) with some consideration of their role in ancient and modern literature and art.

## Exclusion: CLA205Y I

CLA206HI Ancient Astronomy 39L
The rise, development, and practical applications of the study of the heavens in Mesopotamia, Egypt, and the Greco-Roman world.

## Classics

## CLA2I9HI Women in Antiquity

A survey of the position of women in ancient Greece and Rome, with focus on women's sexuality and socialization; their economic, religious, and political roles; and their creative production in the arts.
Recommended preparation: CLAI $60 \mathrm{Y} / / 230 \mathrm{HI} / 23 \mathrm{IHI}$
CLA220HI Women in Classical Literature 39L
This course studies the various images of women presented in the literature of Graeco-Roman antiquity.
Recommended preparation: CLAI60YI
CLA230HI Introduction to Greek History
A historical survey of the most significant features in the development of the civilization and states of ancient Greece from the Bronze Age to the second century B. C.

## CLA23IHI Introduction to Roman History

A historical survey of the most significant features in the development of the civilization and state of ancient Rome from the mythical beginnings to the fourth century A. D.
CLA232HI Introduction to Greek Society 39L and Culture
A general introduction to the society and culture of Ancient Greece. Topics may include literature, art, social customs, gender and sexuality, daily life, and religious festivals (the theatre, the Olympic Games etc.).
CLA233HI Introduction to Roman Society 39L and Culture
A general introduction to the society and culture of Ancient Rome. Topics may include literature, art, social customs, gender and sexuality, daily life, and religious festivals (the circus, the gladiatorial games etc.).
CLA236HI Greek and Roman Epic
39L
A study of one or more of the epic poems of Greek and Roman antiquity (e. g. The Iliad and Odyssey of Homer and the Aeneid of Virgil).
Exclusion: CLA30IHI, 302HI

## CLA299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.

## 300-Series Courses

## CLA305HI Theories of Myth

39S
A detailed study of the major modern approaches to the analysis and interpretation of myth with specific reference to their applications to ancient Graeco-Roman myth.
Prerequisite: CLA204HI/205YI

## CLA336HI Roman Law

(formerly CLA336YI)
Roman law with emphasis on how it reflected community values. The nature of Roman legal reasoning. The historical development of Roman law against the background of the evolution of Roman society and Roman power.

CLA362HI Mycenaean and Archaic Greece 39S
The Greek world from the second millennium B. C. to the end of the Archaic Age
Prerequisite: CLA230HI

## CLA363HI The Rise and Fall of Athens

The Greek world in the fifth and fourth centuries B. C.
Prerequisite: CLA230HI
Exclusion: CLA345HI
CLA364HI The Hellenistic World
The Greek world in the age of Alexander the Great and his successors (336 B. C. to 3 I B. C.)
Prerequisite: CLA230HI
CLA365HI Topics in Greek Social History 39 S
Topics vary from year to year.
Prerequisite: CLA230HI
CLA366HI Topics in the Study of 39S Greek History
Topics vary from year to year.
Prerequisite: CLA230HI
CLA367HI The Roman Republic
The Roman world from 510 B. C. to 44 B. C.
Prerequisite: CLA23IHI
Exclusion:CLA334HI
CLA368HI Augustus and the Julio-Claudians 39 S
The Roman world in the age of Augustus and his dynasty (44 B. C. to A. D. 68)

Prerequisite: CLA23IHI
Exclusion: CLA35IHI
CLA369HI The Roman Empire 39S
The Roman world from A. D. 68 to A. D. 378
Prerequisite: CLA23IHI
Exclusion: CLA35IHI, 352HI
CLA370HI Topics in Roman Social History 39 S
Topics vary from year to year.
Prerequisite: CLA23IHI
CLA37IHI Topics in the Study of
Topics vary from year to year.
Prerequisite: CLA23IHI

## CLA378HI

## Late Antiquity (formerly CLA338HI)

The history and culture of the Roman Empire from Theodosius the Great to Justinian, concentrating on the interplay of modern interpretations and ancient evidence.
Prerequisite: CLA23IHI
CLA382HI The Classical Greek Theatre 39S
The origins of the theatre, its social function, the dramatic genres, and a study of representative plays.
Prerequisite: CLA232HI/DRM260HI
Exclusion: CLA300YI
CLA383HI Hellenistic and Roman Theatre 39S
The development of the theatre, its social function, the dramatic genres, and a study of representative plays.
Prerequisite: CLA232HI/233HI/DRM260HI
Exclusion: CLA300YI
CLA384HI Greek Literature in Translation 39S
A selection of Greek literary texts from one or more genres. Prerequisite: CLA $232 \mathrm{HI} / 236 \mathrm{HI}$
CLA385HI Roman Literature in Translation 39S A selection of Roman literary texts from one or more genres. Prerequisite: CLA233HI/236HI

CLA386HI Classical Literature in Translation 39S
A selection of Greek and Roman literary texts from one or more genres.
Prerequisite: CLA $232 \mathrm{HI} / 233 \mathrm{HI} / 236 \mathrm{HI}$
CLA387HI Spectacle in the Roman World 39 S
The role in Roman society and culture of public spectacles, including the chariot-races, the gladiatorial games, executions, and triumphal processions.
Prerequisite: CLA233HI
CLA388HI Classical Antiquity and the Cinema 39S
A study of the representation of ancient Greece and/ or Rome in cinema.
Prerequisite: CLA232HI/233HI
CLA389HI Classical Spaces: Sites 39S and Monuments
A close study of one or more sites in the ancient world and the cultural significance of the site(s) in question.
Prerequisite: CLA230HI/23IHI/232HI/233HI
CLA390HI Topics in the Study of Greek
Culture and Society
Topics vary from year to year.
Prerequisite: CLA232HI
$\begin{array}{ll}\text { CLA39IHI } & \begin{array}{l}\text { Topics in the Study of Roman } \\ \text { Culture and Society }\end{array}\end{array}$
Topics vary from year to year.
Prerequisite: CLA233HI
CLA398H0/ Independent Experiential Study Project 399Y0
An instructor-supervised group project in an off-campus setting. See page 47 for details.
400-Series Courses
CLA400YI Independent Studies
Prerequisite: Permission of Department

CLA40IHI Independent Studies TBA
Prerequisite: Permission of Department
CLA402HI Special Topics in Classical TBA

## Literature

Prerequisite: One FCE in the CLA 300-series, permission of Department
CLA403HI Special Topics in Ancient History TBA
Prerequisite: One FCE in the CLA 300-series, permission of Department

## Greek Courses

GRKIOOYI Introductory Ancient Greek I04S
An intensive introduction to Ancient Greek for students who
have no knowledge of the language; preparation for the reading of Ancient Greek literature.
Exclusion: GRKIOIHI, I02HI. Students who have studied
Ancient Greek previously must obtain permission from the Undergraduate Coordinator before enrolling.

## GRKI02HI Introductory Ancient Greek: 52S

 ContinuationAn intensive language course for students who have some Ancient Greek. This course is equivalent to the second part of GRKIOOYI.
Exclusion: GRKIOOYI
Prerequisite: Some background in Ancient Greek

## GRK200HI Intensive Intermediate

 Ancient GreekFurther language training, with readings in Greek prose.
Prerequisite: GRKIOOYI/IO2HI and permission from the Department
GRK20IHI Intermediate Ancient Greek I 52S
Reading of selections of Ancient Greek prose works with
systematic language study.
Prerequisite: GRKIOOYI/IO2HI. Students who have completed an OAC in Ancient Greek must obtain permission from the Undergraduate Coordinator before enrolling.
GRK202HI Intermediate Ancient Greek II 52 S
Continued language training with readings in Ancient Greek
prose and verse.
Prerequisite: GRK2OIHI

## Note:

Frequency of Offering: in each fall-winter session, GRK 330 HI will be offered and a minimum of 3 half-courses in each of the 300 and 400-series. In odd-numbered years the courses offered in the 300 and 400 -series will normally be drawn from those with odd numbers, and in even-numbered years from those with even numbers.

## GRK330HI Advanced Greek Language Study 39 S

A course designed to enhance language skills. Prose
composition, sight translation, stylistic analysis of classical Greek prose.
Prerequisite: GRK202HI
GRK340HI Plato I
Readings from one or more Platonic Dialogues.
Exclusion: GRK440HI
Prerequisite: GRK202HI
GRK34IHI Herodotus I
Readings from Herodotus' Histories.
Exclusion: GRK44IHI
Prerequisite: GRK202HI

## GRK342HI Thucydides I

Readings from The Peloponnesian War.
Exclusion: GRK442HI
Prerequisite: GRK202HI

## GRK343HI Prose Authors I

Readings from Greek prose (e.g., oratory, novels).
Exclusion: GRK443HI
Prerequisite: GRK202HI

## GRK350HI Epic I

Readings from Greek epics, including Homer.
Exclusion: GRK450HI
Prerequisite: GRK202HI
GRK35IHI Drama I
Readings from Euripides and Aristophanes.
Exclusion: GRK45 IHI
Prerequisite: GRK202HI

## Classics

GRK352HI Tragedy I 39S
Readings from Aeschylus and Sophocles.
Exclusion: GRK452HI
Prerequisite: GRK202HI

## GRK353HI Verse Authors I

Readings from Greek verse (e.g., elegy, iambics, lyric).
Exclusion: GRK453HI
Prerequisite: GRK202HI

## GRK354HI Koine Greek I

Readings from Hellenistic and early Imperial Greek, with emphasis on Jewish and Christian texts.
Exclusion: GRK454HI
Prerequisite: GRK202HI
GRK428YI Independent Studies TBA

Prerequisite: Permission of Department
GRK429HI Independent Studies TBA

Prerequisite: Permission of Department

## GRK440HI Plato II

Advanced readings from one or more Platonic Dialogues.
Exclusion: GRK340HI
Prerequisite: One FCE in the GRK300-series
Co- or prerequisite: GRK330HI

## GRK44IHI Herodotus II

Advanced readings from Herodotus' Histories.
Exclusion: GRK34IHI
Prerequisite: One FCE in the GRK300-series
Co- or prerequisite: GRK330HI
GRK442HI Thucydides II
Advanced readings from The Peloponnesian War.
Exclusion: GRK342HI
Prerequisite: One FCE in the GRK300-series
Co- or prerequisite: GRK330HI

## GRK443HI Prose Authors II

Advanced readings from Greek prose (e.g., oratory, novels).
Exclusion: GRK343HI
Prerequisite: One FCE in the GRK300-series
Co- or prerequisite: GRK330HI

## GRK450HI Epic II

Advanced readings from Greek epics, including Homer.
Exclusion: GRK350H I Prerequisite: One FCE in the GRK300-seriesCo- or prerequisite: GRK 330 HI

## GRK45IHI Drama II

Advanced readings from Euripides and Aristophanes.
Exclusion: GRK35 IHI
Prerequisite: One FCE in the GRK300-series
Co- or prerequisite: GRK330HI

## GRK452HI Tragedy II

Advanced readings from Aeschylus and Sophocles.
Exclusion: GRK352HI
Prerequisite: One FCE in the GRK300-series
Co- or prerequisite: GRK330HI
GRK453HI Verse Authors II39 S

Advanced readings from Greek verse (e.g., elegy, iambic, lyric).
Exclusion: GRK353HI
Prerequisite: One FCE in the GRK300-series
Co- or prerequisite: GRK330HI

GRK454H I Koine Greek II
$39 S$
Readings from Hellenistic and early Imperial Greek, with
emphasis on Jewish and Christian texts.
Exclusion: GRK354HI
Prerequisite: One FCE in the GRK300-series
Co- or prerequisite: GRK 330 HI

## Latin Courses

LATIOOYI Introductory Latin I04S
An intensive introduction to Latin for students who have no
knowledge of the language; preparation for the reading of Latin

## literature.

Exclusion: LATIOIHI, IO2HI. Students who have studied Latin previously must obtain permission from the Undergraduate Coordinator before enrolling.
LATIO2HI Introductory Latin: Continuation 52 S
An intensive language course for students who have some Latin.
This course is equivalent to the second half of LAT IOOYI.
Exclusion: LATIOOYI
Prerequisite: Some background in Latin.
LAT20IHI Intermediate Latin I 52S
Reading of selections of Latin prose works with systematic
language study.
Prerequisite: LATIOOYI/I02HI. Students who have completed an OAC in Latin must obtain permission from the
Undergraduate Coordinator before enrolling.
LAT202HI Intermediate Latin II 52S
Continued language training with readings in Latin prose and verse.
Prerequisite: LAT20IHI

## 300-Series Courses

## Notes

Frequency of Offering: in each fall-winter session, LAT 330HI will be offered and a minimum of 3 half-courses in each of the 300 and 400-series. In odd-numbered years the courses offered in the 300 and 400 -series will normally be drawn from those with odd numbers, and in even-numbered years from those with even numbers.

LAT330HI Advanced Latin Language Study
A course designed to enhance language skills. Prose composition, sight translation, stylistic analysis of Latin prose. Prerequisite: LAT202HI

## LAT340HI Latin Novelists I

Readings from one or more Latin novelists.
Exclusion: LAT440HI
Prerequisite: LAT202HI
LAT34 I HI Latin Historians I
Readings from one or more Latin historians.
Exclusion: LAT44IHI
Prerequisite: LAT202HI
LAT342HI Latin Orators I
Readings from Latin orators, including Cicero.
Exclusion: LAT442HI
Prerequisite: LAT202HI

## Classics

| LAT343HI | Prose Authors I | 39S |
| :---: | :---: | :---: |
| Readings from Latin prose authors (e. g. biography, letters, philosophy). |  |  |
| Exclusion: LAT443HI |  |  |
| Prerequisite: LAT202HI |  |  |
| LAT350HI | Epic I | 39S |
| Readings from one or more Latin epics, including Virgil. |  |  |
| Exclusion: LAT450HI |  |  |
| Prerequisite: LAT202HI |  |  |
| LAT35 IHI | Drama I | 39 S |
| Readings from Latin comedy and/or tragedy. |  |  |
| Exclusion: LAT45IHI |  |  |
| Prerequisite: LAT202HI |  |  |
| LAT352HI | Satire I | 39 S |
| Readings from one or more Latin satirists. |  |  |
| Exclusion: LAT452HI |  |  |
| Prerequisite: LAT202HI |  |  |
| LAT353HI | Verse Authors I | 395 |
| Readings from Latin verse (e.g. elegy, lyric, bucolic). |  |  |
| Exclusion: LAT453HI |  |  |
| Prerequisite: LAT202HI |  |  |
| LAT428YI | Independent Studies | TBA |
| Prerequisite: Permission of Department |  |  |
| LAT429HI | Independent Studies | TBA |
| Prerequisite: Permission of Department |  |  |
| LAT440HI | Latin Novelists II | 39 S |
| Advanced readings from one or more Latin novelists. |  |  |
| Exclusion: LAT340HI |  |  |
| Prerequisite: One FCE in the LAT 300-series |  |  |
| Co- or prerequisite: LAT330HI |  |  |

- or prerequisite: LAT330H

LAT44IHI Latin Historians II
Advanced readings from one or more Latin historians. Exclusion: LAT34IHI
Prerequisite: One FCE in the LAT 300-series
Co- or prerequisite: LAT330HI
LAT442HI Latin Orators II
Advanced readings from Latin orators, including Cicero.
Exclusion: LAT342HI
Prerequisite: One FCE in the LAT 300-series
Co- or prerequisite: LAT330HI
LAT443HI Prose Authors II 39S
Advanced readings from Latin prose authors (e. g. biography, letters, philosophy).
Exclusion: LAT343HI
Prerequisite: One FCE in the LAT 300-series
Co- or prerequisite: LAT330HI
LAT450HI Epic II 39S
Advanced readings from one or more Latin epics, including Virgil.
Exclusion: LAT350HI
Prerequisite: One FCE in the LAT 300-series
Co- or prerequisite: LAT330HI

## LAT45IHI Drama II

Advanced readings from Latin comedy and/or tragedy
Exclusion: LAT35IHI
Prerequisite: One FCE in the LAT 300-series
Co- or prerequisite: LAT330HI

LAT 452 HI Satire II
Advanced readings from one or more Latin satirists.
Exclusion: LAT352HI
Prerequisite: One FCE in the LAT 300-series
Co- or prerequisite: LAT330HI
LAT453HI Verse Authors II 39S
Advanced readings from Latin verse (e. g. elegy, lyric, bucolic).
Exclusion: LAT353HI
Prerequisite: One FCE in the LAT 300-series
Co- or prerequisite: LAT330HI

## Cognitive Science \& Artificial Intelligence: see University College

Cognitive Science: see University College

Commerce \& Finance: see Commerce, page 40

## Comparative Literature

## Faculty

## Professors Emeriti

L. Dolezel, MA, Ph D, FRSC
E. Kushner, MA, Ph D, FRSC
P.W. Nesselroth, MA, Ph D, Ch PA
B. Stock, AM,, Ph D
M.J. Valdés, MA, Ph D, FRSC, Miembro

Correspondiente de la Academia Mexicana
Professor and Director of the Centre
R.J. Le Huenen, $L$ ès L, DES, D en Ph, Ch PA, FRSC, D.Litt (hon.)
Associate Professor and Co-ordinator of Graduate Studies
J.A.Fleming, MA, Ph D

## University Professors

J.E. Chamberlin, BA, Ph D. FRSC, D.Litt (hon.)
L.A.M. Hutcheon, MA, Ph D, FRSC, D.Litt (hon.)

## Professors

A.A. lannucci, MA, Ph D
P. Kleber, MA, Ph D
T. Lahusen, MA, Ph D
J. LeBlanc, MA, Ph D

Associate Professors
V.Ambros, MA, Ph D
E. Cazdyn, MA, Ph D
R. Comay, MA, Ph D
U. Esonwanne, MA, Ph.D
B. Havercroft, MA, Ph D
V. Li, MA, Ph.D
Y. Meng, MA, Ph.D
J. Ross, MA, Ph D
S.J. Rupp, MA, Ph D
J. Zilcosky, MA, Ph D

## Assistant Professors

A. Budde, MA, Ph.D
E.-L. Jagoe, MA, Ph.D
A. Komaromi, MA, Ph D
D. Thomson, MA, Ph.D

## Northrop Frye Visiting Professor

 TBAThe Centre for Comparative Literature offers M.A.and Ph.D. degree programs of study in every major area from medieval to contemporary literatures with particular emphasis on literary theory and criticism, to candidates qualified to pursue literary studies involving several languages. Provided the language requirements of the Centre are satisfied, students may pursue theoretical issues that cross traditional disciplines.

## Enquiries:

Bader Theatre, 93 Charles Street. 3rd Floor (416-8I3-404I)

## Comparative Literature Courses

(See page 33 for Key to Course Descriptions)
JDC299YI Research Opportunity Program
Credit course for supervised participation in faculty research project. See page 47 for details. Offered by the Centre for Comparative Literature in collaboration with the University College Drama Program.
JUC299YI Research Opportunity Program
Credit course for supervised participation in faculty research project. See page 47 for details. Offered by the Centre for Comparative Literature in collaboration with University College.

| JDC400YI | Dramatic Text and Theatrical <br> Communication |
| :--- | :--- |

## Note

Undergraduate students may sometimes take one half-course or one full course at the graduate level adapted to meet the needs of undergraduate students. If granted permission the students will then register for the course using the COL490HI/ COL49IYI designators. For more information contact the Graduate Coordinator: 416-8I3-4043.

COL490HI/ Independent Study TBA 49IYI
A scholarly project supervised by a member of staff on a literary topic of common interest including readings, discussions, and papers.
Prerequisite: Permission of the Centre for Comparitive
Literature

## Computer Science

## Faculty

## University Professor Emeritus

S.A. Cook, AM, Ph D, DM, FRS, FRSC (T)

## Professors Emeriti

C.C. Gotlieb, MA, Ph D, D Math, D Eng, FRSC
R.C. Holt, Ph D
J.N.P. Hume, MA, Ph D, FRSC, CM
R.A. Mathon, MSc, PhD (University of Toronto Mississauga)

Professor and Chair of the Department
C. Boutilier, M Sc, Ph D

Professor and Vice Chair of the Department H. Levesque, M Sc, Ph D, FRSC

## Associate Professor and Associate Chair -

## Graduate Studies

R. Zemel, M Sc, Ph D

## Senior Lecturer and Associate Chair -

## Undergraduate Studies

J.N. Clarke, M Sc, Ph D (V)

## University Professor

G.E. Hinton, Ph D, FRS, FRSC

## Professors

T.S.Abdelrahman, M Sc, Ph D
F. Bacchus, M Sc, Ph D
R.M. Baecker, M Sc, Ph D
A.B. Borodin, M Sc, Ph D, FRSC
D.G. Corneil, MA, Ph D
S. Easterbrook, B Sc, Ph D
F.Ellen, M Math, Ph D
W.H. Enright, M Sc, Ph D (University of Toronto

Scarborough)
E. Fiume, M Sc, Ph D
D. Fleet, M S, PhD (University of Toronto Scarborough)
V. Hadzilacos, M Sc, Ph D (University of Toronto

Scarborough)
E.C.R. Hehner, M Sc, Ph D
G. Hirst, M Sc, Ph D (University of Toronto Scarborough)
K.R. Jackson, M Sc, Ph D
A.D. Jepson, B Sc, Ph D
L. Libkin, MS, Ph D
R. Miller, MS, Ph D
M. Molloy, M Math, Ph D (University of Toronto

Scarborough)
R. Neal, B Sc, Ph D
J. Mylopoulos, M Sc, Ph D
T. Pitassi, M Sc, Ph D
C.W. Rackoff, SM, Ph D (University of Toronto Mississauga)
S. Toueg, MA, Ph D
D.B. Wortman, M Sc, Ph D

## Associate Professors

R. Balakrishnan, M Sc, Ph D
A.J. Bonner, M Sc, Ph D (University of Toronto Mississauga)
M. Chechik, MS, PhD
C. Christara, MS, Ph D
J.N. Danahy, BLA, URP
S. Dickinson, MS, Ph D
G.S. Graham, M Sc, MA, Ph D (University of Toronto

Mississauga)
K. Kutulakos, M Sc, PhD
P.J. Marbach, M Sc, Ph D
S. Mcllraith, Ph D
G. Penn, MS, Ph D
S. Roweis, BAS, Ph D
K. Singh, MS, Ph D
S. Stevenson, MS, Ph D

Assistant Professors
M. Brudno, M.Sc. Ph.D
E. DeLara, MS, Ph D
A. Demke-Brown, M Sc, Ph D
Y. Ganjali, Ph D
A. Hertzmann, MS, Ph D
N. Koudas, M Sc, Ph D (University of Toronto

Scarborough)
R. Lilien, B S, PhD, MD
A. Magen, M Sc, Ph D (University of Toronto Mississauga)
S. Saroiu, MS, PhD (University of Toronto Mississauga)
K.N. Truong, Ph D

Senior Lecturers
G. Baumgartner, M Sc
M. Craig, M Sc
T. Fairgrieve, M Sc, Ph D
P. Gries, M Eng
D. Horton, M Sc
F. Pitt, M Sc, Ph D

## Lecturers

J. Campbell, M Math
S. Engels, M Math
D. Heap, B Sc, M Sc
K. Reid, M Sc

## Cross Appointed

C. Amza, Ph D
G. Bader, Ph D
C. Beck, Ph D
I. Blake, MA, MA Sc, Ph D
B. Cantwell Smith, MS, Ph D
M. Carter, M Math, Ph D
M. Chignell, MS, Ph D
A. Clement, M Sc, Ph D
M. Consens, Ph D
M.S. Fox, Ph D
B. Frey, Ph D
A. Goel, Ph D
M. Gruninger, Ph D
G. Gulak, M Sc, Ph D
A. Jacobsen, MS, Ph D
B. Li, M Sc, Ph D
D. Lie, Ph D
J. MacLean, Ph D
S. Mann, M Eng, Ph D
E. Mendelsohn M Sc, Ph D (University of Toronto

## Computer Science

Scarborough)<br>A. Mihailidis, Ph D<br>Q. Morris, Ph D<br>A. Moshovos, M Sc, Ph D<br>M. Shub, Ph D<br>G. Steffan, MA Sc, Ph D<br>M. Stumm, MS (Math), Ph D<br>T.Topaloglou, Ph D<br>A.I.F. Urquhart, MA, Ph D<br>M. Voss, Ph D<br>E. Yu, M Sc, Ph D<br>S.G. Zaky, MA Sc, Ph D

## Status Only Faculty

J. Glasgow, Ph D
I. Jurisica, M Sc, Ph D
A.Kreinin MSc, Ph D
Y. Lesperance, MSc, Ph D
C.Sminchiesescu, MS, Ph D
D. Terzopoulos, Ph D
G.Wilson, Ph D

What is Computer Science?
Despite the name, Computer Science is not really a "science of computers" at all. Computers are quite remarkable electronic devices, but even more remarkable is what they can be made to do: simulate the flow of air over a wing, manage communication over the Internet, control the actions of a robot, synthesize realistic images, play grandmaster-level chess, and on and on. Indeed the application of computers in activities like these has affected most areas of modern life. What these tasks have in common has little to do with the physics or electronics of computers; what matters is that they can be formulated as some sort of computation. This is the real subject matter of Computer Science: computation, and what can or cannot be done computationally.

In trying to make sense of what we can get a computer to do, a wide variety of topics come up. There are, however, two recurring themes. The first is the issue of scale: how big a system can we specify without getting lost in the design, or how big a task can a computer handle within reasonable bounds of time, memory and accuracy. A large part of Computer Science deals with these questions in one form or another. In the area of programming languages and methodology, for example, we look for notations for describing computations, and programming methodologies that facilitate the production of manageable and efficient software. In the theory of computation area, we study resource requirements in time and memory of many basic computational tasks.

The second theme concerns the scope of computation. Computers were originally conceived as purely numerical calculators, but today, we tend to view them much more broadly. Part of Computer Science is concerned with understanding just how far computational ideas can be applied. In the area of artificial intelligence, for example, we ask how much of the intelligent behaviour of people can be expressed in computational terms. In the area of human/computer interaction, we ask what sorts of normal day-to-day activities of people might be supported and augmented using computers.

Many of our Programs combine another field with computer
science, such as Information Systems, Economics, Mathematics, Physics or Statistics. The Programs in Software Engineering and Human-Computer Interaction focus on developing areas of computing.
Some Computer Science courses are offered in the evening, to allow part-time students to pursue our Programs. Introductory courses and some higher-level courses are offered in the summer.

The Professional Experience Year Program (PEY) offers students the opportunity to gain valuable work experience in industry, over a twelve to sixteen-month period. It, and the Co-Op Japan Program, are available to eligible, full time students pursuing their first degree. Please refer to Page 19 for more information.

Associate Chair - Undergraduate Studies: J.N. Clarke
Undergraduate Office: Bahen Building, 40 St. George Street, Room 4252/4254, M5S 2E4 (4I6-978-6360)

Student Counsellors: Bahen Building, 40 St. George Street, Room 4252/4254 (416-978-6360)

Web site: www.cs.utoronto.ca

## Computer Science Programs

Enrolment is restricted in all CSC Programs. You may request a CSC subject POSt in April-June or July-August depending on when you have completed the required I00-level courses listed below. Consult the 2007-2008 Registration Handbook \& Timetable for details of how to apply. Admission to restricted Programs depends on performance in the required 100 -level courses (listed in Program descriptions) and on cumulative GPA.
Tuition fees for students enrolled in Computer Science Major or Specialist Programs are higher than for other Arts and Science Programs.

## Course Categories

A number of Computer Science Programs are described based on the following course categories: English Writing Requirement, Basic Courses, Core Courses, and Additional Courses. Also, all CSC courses and a few related ECE/MAT/STA courses are further grouped into subject areas and sub-areas.

## English Writing Requirement

Students in any Specialist Program sponsored by the Department of Computer Science (including Combined Specialist Programs) must complete one credit requiring substantial written work in English. The courses accepted for this purpose are listed below. Courses not on this list do not satisfy the requirement without departmental approval. Students in the Major Program in Computer Science must take one-half credit from the same list. Departments offering these courses have agreed to accept our students, but will not give you special preference in admission. You must satisfy the prerequisite and other requirements listed in this Calendar. Make sure to check that the course you want to take is offered in the year you want it, and to follow the enrolment requirements stated in the Arts and Science Registration Handbook and Timetable. A Transfer credit, whether it is for a specific course on the list below (e.g.,"RLGIOOYI") or is a generic credit (e.g.,"RLG $I^{*}$ Y $I$ "), must be approved by the Department in order to count towards the writing requirement. Please contact the

## Computer Science

Department for approval. In order to accept such a course, we must assess the role of written work in the course, and determine that it was taught in English, at an English-speaking university.
ANT204YI; CLAI60YI, any 200- or 300-level except CLA20IHI; CSC290HI, CSC300HI; ENG - any I00- or 200level; GER235YI, GER25 IYI; HIS - any 100- or 200-level; HPS - all courses; HUMIOIYI, HUMI99HI/YI; INIII5YI, INI202YI, INI203YI, INI204YI, INI224YI, INI225YI, INI235YI, INI300YI; ITA240YI, ITA245YI, ITA340YI; JAL328HI; JEFIOOYI; UNI250YI; NEWI50YI, NEWI60YI, higher-level courses in the "Humanism" grouping; NMCIOIYI, NMCI85YI, higherlevel courses in the "History" grouping; PHLIOOYI, PHLIOIYI, PHLI02YI, any 200- or 300 -level except PHL245HI, PHL246HI, PHL247HI, PHL344HI, PHL345HI, PHL346HI, PHL347HI, PHL349HI, PHL356HI; POLI00YI, POLI02YI, POLI03YI, POLI04YI, POLI08YI, any 200-level except POL242YI; RLGIOOYI, RLGIOIYI, any 200-level;TRN200YI, UNII30YI, UNI2OIHI, UNI202HI, UNI3IOYI;VICI 2OYI;WRT300HI.

Courses not accepted to satisfy the writing requirement include SCII99HI/YI, SSCI99HI/YI, and the "Research Opportunity Program" courses numbered 299 Yl in any Department. INXI99HI/YI is not automatically accepted towards the writing requirement. Students may, however, request Department approval for a particular INXI99HI/YI course.

In addition to completing their English Writing Requirement, Computer Science students do significant writing in a number of their CSC courses. The quality of their writing, as well as its content, is important and is normally part of the grading scheme.

## Basic Courses (5.5 full courses): Courses required

 in the Major and most Specialists
## First Year:

CSC $108 \mathrm{HI} / 150 \mathrm{HI}$
CSC $148 \mathrm{HI} / \mathrm{I} 50 \mathrm{HI}$
CSC $165 \mathrm{HI} / 240 \mathrm{HI}$
MAT I37YI/I57YI
[Software Engineering sub-area] [Software Engineering sub-area] [Logic and Complexity sub-area]
[Mathematics sub-area]
First or Second Year:
CSC 207HI
CSC $236 \mathrm{HI} / 240 \mathrm{HI}$
CSC 258 HI
MAT $223 \mathrm{HI} / 240 \mathrm{HI}$
[Software Engineering sub-area] [Logic and Complexity sub-area] [Core Systems sub-area]
[Mathematics sub-area]

## Second Year:

CSC $263 \mathrm{HI} / 265 \mathrm{HI}$
[Logic and Complexity sub-area]
STA $247 \mathrm{HI} / 257 \mathrm{HI}$
[Mathematics sub-area]

## Notes:

I. Students with a strong background in Java or C++ may omit CSCI08HI and proceed directly with CSC 148 HI .
2. $\mathrm{CSC} I 50 \mathrm{HI}$ is an accelerated alternative to CSCI 08 HI and CSC 148 HI , intended for students with previous programming experience in a procedural language.
3. CSC 240 HI is an accelerated and enriched version of CSC 165 HI plus CSC 236 HI , intended for students with a strong mathematical background, or who develop an interest after taking CSC 165 HI .
4. Students may not omit CSC 165 HI and proceed directly to CSC236H. Either (CSC 165 HI and CSC236HI), or CSC240H is required for Program completion. CSCl65HI is different from CSCl 08 HI in this respect.
5. Consult the Undergraduate Office for advice about choosing among $\mathrm{CSCl} 08 \mathrm{HI}, \mathrm{CSCI} 48 \mathrm{HI}$, and CSCI 50 HI , and between CSCI 65 HI and CSC 240 HI .

## Core Courses ( 3.5 full courses): Courses required in most Specialists

CSC 209HI [Core Systems sub-area]
CSC 324 HI [Software Engineering sub-area]
CSC $336 \mathrm{HI} / 350 \mathrm{HI}$
CSC 343 HI
CSC $363 \mathrm{HI} / 365 \mathrm{HI}$
CSC 369 HI
CSC $373 \mathrm{HI} / 375 \mathrm{HI}$
[Numerical Analysis sub-area]
[Information Systems sub-area]
[Logic and Complexity sub-area]
[Core Systems sub-area]

## Notes

I. CSC 350 HI is required in the Computer Science Specialist Program - Foundations Option; students who take CSC 336 HI and later decide to enrol in the Foundations Option will be required to take extra credits as determined by the Undergraduate Program Director.
2. MAT $237 \mathrm{YI} / 257 \mathrm{Y}$ I is a direct or indirect prerequisite for a number of CSC courses. MAT 237YI/257YI is also required in most Computer Science Programs. Students are advised to take MAT 237YI/257YI unless they have planned their Program and course selection carefully and are certain that they will not need it.

## Additional Courses

## Systems Area

I. Core Systems

CSC $354 \mathrm{HI}, 372 \mathrm{HI}$; ECE 385 HI
CSC $458 \mathrm{HI}, 469 \mathrm{HI}, 488 \mathrm{HI}$; ECE 489 HI
II. Software Engineering

CSC 30 IHI .302 HI
CSC $4 \mathrm{IOHI}, 465 \mathrm{HI}$
III. Information Systems CSC $309 \mathrm{HI}, 310 \mathrm{HI}$ CSC 443HI

Human Factors and Graphics Area
I. Human Factors

CSC $300 \mathrm{HI}, 318 \mathrm{HI}$
CSC $428 \mathrm{HI}, 454 \mathrm{HI}$
II. Graphics CSC 320 HI CSC 418 HI
Artificial Intelligence Area
I. Reasoning CSC 384HI CSC 486HI
II. Language CSC $40 \mathrm{IHI}, 485 \mathrm{HI}$
III. Vision CSC $420 \mathrm{HI}, 487 \mathrm{HI}$
IV. Learning CSC 32 IHI CSC $4 \mathrm{IIHI}, 4 \mathrm{I} 2 \mathrm{HI}$
Foundations Area
I. Logic and Complexity CSC 330HI CSC $438 \mathrm{HI}, 448 \mathrm{HI}$
II. Numerical Analysis CSC 35 IHI CSC $446 \mathrm{HI}, 456 \mathrm{HI}$

## Computer Science

## III. Mathematics <br> MAT $224 \mathrm{HI} / 240 \mathrm{HI}, 237 \mathrm{YI} / 257 \mathrm{YI} ;$ STA 248 HI

## Computer Science (Science Program)

Consult Student Counsellor, Department of Computer Science.
Enrolment in the Specialist and Major Programs is limited. Admission requires (1) $65 \%$ in CSC $148 \mathrm{HI} / \mathrm{I} 50 \mathrm{HI}$, (2) either $60 \%$ in MAT I37YI/I57YI or $65 \%$ in CSC $165 \mathrm{HI} / 240 \mathrm{HI}$, and (3) a minimum CGPA of 2.0. Students who not meet these requirements on the first attempt will be considered on a case-by-case basis.

## Specialist Program

( 14 full courses or their equivalent, including at least one 400series course)
I. One full course English Writing Requirement.
2. All Basic Courses and Core Courses (9 full courses).
3. MAT $237 \mathrm{Y} I / 257 \mathrm{Y}$ I.
4. Six half courses from the Additional Courses, with at least two 400-level half courses.

## Notes:

I. This flexible Program allows students to concentrate in one or more areas for which there is currently no other Program. Students are strongly encouraged to seek advice from a faculty member in the Department of Computer Science in order to ensure that their course selection meets their academic goals. This is particularly important for students planning to apply to graduate school.

## Major Program

(8 full courses or their equivalent, including at least two 300+ series courses)
I. One half course English Writing Requirement.
2. All Basic Courses ( 5.5 full courses).
3. Four 300+ level half courses from the Core Courses and/ or Additional Courses.

## Notes:

I. CSC 209 HI is a direct or indirect prerequisite for a number of CSC courses. Students who intend to take one of these courses will also have to take CSC 209 HI as an additional half course.

## Computer Science - Artificial Intelligence Option (Science Program)

Consult Student Counsellor, Department of Computer Science.
Enrolment in this Program is limited.Admission requirements are the same as for the Specialist Program in Computer Science.

## Specialist Program

(13.5 full courses or their equivalent, including at least one 400series course)
I. One full course English Writing Requirement.

All Basic Courses and Core Courses (9 full courses).
3. One full credit from MAT $237 \mathrm{Y} I / 257 \mathrm{Y}$ I, MAT $224 \mathrm{HI} / 240 \mathrm{HI} / 247 \mathrm{HI}$, STA $248 \mathrm{HI} / 26 \mathrm{IHI}$.
4. Five half courses from the Artificial Intelligence area, with at least one half course from each of three different Artificial Intelligence sub-areas.

## Notes:

I. Students may be interested in taking UNI250YI to satisfy their English Writing Requirement. This course can be taken in first year.
2. The additional half course CSC 320 HI is recommended for students interested in taking CSC 420 HI .
3. The additional half course CSC 330 HI is recommended for students interested in taking CSC 486 HI .

## Computer Science - Foundations Option (Science Program)

Consult Student Counsellor, Department of Computer Science.
Enrolment in this Program is limited. Admission requirements are the same as for the Specialist Program in Computer Science.

## Specialist Program

(14 full courses or their equivalent, including at least one 400series course)
I. One full course English Writing Requirement.
2. All Basic Courses and Core Courses ( 9 full courses), except that students must take CSC 350 HI rather than CSC 336 HI .
3. MAT $224 \mathrm{HI} / 240 \mathrm{HI}, 237 \mathrm{YI} / 257 \mathrm{Y}$.
4. MAT $30 \mathrm{IHI} / 3 \mathrm{I} 5 \mathrm{HI} / 334 \mathrm{HI} / 344 \mathrm{HI} / 40 \mathrm{IHI}$.
5. CSC 35 IHI .
6. $\mathrm{CSC} 438 \mathrm{HI} / 448 \mathrm{HI} / 465 \mathrm{HI}$.
7. Two half courses from the Additional Courses, with at least one 400 -level half course - these may include any half course not taken to satisfy the requirement CSC $438 \mathrm{HI} / 448 \mathrm{HI} / 465 \mathrm{HI}$.

## Computer Science - Information Systems Option (Science Program)

Consult Student Counsellor, Department of Computer Science.
Enrolment in this Program is limited.Admission requirements are the same as for the Specialist Program in Computer Science.

## Specialist Program

(14 full courses or their equivalent, including at least one 400series course)
I. One full course English Writing Requirement.
2. All Basic Courses and Core Courses (9 full courses).
3. MAT $237 \mathrm{Y} / 257 \mathrm{YI}$.
4. CSC $309 \mathrm{HI}, 3 \mathrm{IOHI}, \mathrm{CSC} 30 \mathrm{IHI} / 3 \mathrm{I} 8 \mathrm{HI}$.
5. CSC 443 HI .
6. (CSC $384 \mathrm{HI}, 486 \mathrm{HI}) /(\mathrm{STA} 248 \mathrm{HI}, \mathrm{CSC} 4 \mathrm{IIHI})$

## Computer Science - Software Engineering Option (Science Program)

Consult Student Counsellor, Department of Computer Science.
Enrolment in this Program is limited.Admission requirements are the same as for the Specialist Program in Computer Science.

## Specialist Program

(I3.5 full courses or their equivalent, including at least one 400series course)
I. One full course English Writing Requirement.
2. All Basic Courses and Core Courses ( 9 full courses).

## Computer Science

3. $\mathrm{CSC} 30 \mathrm{IHI}, \mathrm{CSC} 302 \mathrm{HI}, \mathrm{CSC} 318 \mathrm{HI}$,.
4. Two of CSC $354 \mathrm{HI}, 372 \mathrm{HI}, 320 \mathrm{HI} / 32 \mathrm{IHI} / 330 \mathrm{HI} / 384 \mathrm{HI}$, $40 \mathrm{IHI}, 4 \mathrm{IOHI}, 454 \mathrm{HI}, 465 \mathrm{HI}$; ECE 385 HI .
5. Two of CSC $309 \mathrm{HI}, 4 \mathrm{I} 8 \mathrm{HI}, 443 \mathrm{HI}, 458 \mathrm{HI}, 469 \mathrm{HI}$; CSC $488 \mathrm{HI} / \mathrm{ECE} 489 \mathrm{HI}$.
6. The courses choosen from groups 4 and 5 must include at least two half courses at the 400 level.

## Notes:

I. This Program does not lead to certification as a Professional Engineer.
2. Students in this Program are strongly encouraged to consider participating in the Professional Experience Year (PEY) Program.
3. It is recommended, although not necessary, to take CSC 30 IHI and 302 HI in sequence in third year. Students who do so will likely defer some other third year course until fourth year.

## Computer Science \& Economics (Science

## Program)

Consult the Undergraduate Secretary, Department of Economics or Student Counsellor, Department of Computer Science.
Enrolment in this Program is limited. Admission requires: (1) $70 \%$ in ECO IOOYI, (2) $65 \%$ in CSC $148 \mathrm{HI} / 150 \mathrm{HI}$, (3) either $60 \%$ in MAT I37YI/I57YI or $65 \%$ in CSCI65HI/CSC 240 HI , and (4) a minimum CGPA of 2.0. The requirements of the two Departments, Computer Science and Economics, must both be met.

## Specialist Program

(I7 full courses or their equivalent, including at least one 400series course)
First Year:
CSC $165 \mathrm{HI} / 240 \mathrm{HI},(107 \mathrm{HI} / 108 \mathrm{HI}, 148 \mathrm{HI}) / 150 \mathrm{HI} ; \mathrm{ECO}$
I00YI; MAT I37YI/I57YI (See the Notes following the list of Basic Courses in the Course Categories above.)
Higher Years:
I. One full course English Writing Requirement (See the Course Categories above.)
2. CSC $207 \mathrm{HI}, 236 \mathrm{HI} / 240 \mathrm{HI}, 258 \mathrm{HI}, 263 \mathrm{HI} / 265 \mathrm{HI}, 324 \mathrm{HI}$, $336 \mathrm{HI} / 350 \mathrm{HI}$.
3. ECO $206 \mathrm{YI}, 208 \mathrm{YI}, 325 \mathrm{HI}, 326 \mathrm{HI}, 327 \mathrm{YI}, 4 \mathrm{I} 6 \mathrm{HI} / 4 \mathrm{I} 8 \mathrm{HI}$.

4 APM 236 HI, MAT $(223 \mathrm{HI}, 224 \mathrm{HI}) / 240 \mathrm{HI}, 235 \mathrm{YI} / 237 \mathrm{YI} /$ 257YI.
5. ECO $227 \mathrm{YI} / \mathrm{STA}(257 \mathrm{HI}, 26 \mathrm{IHI})$.
6. One and a half courses from the following groups, of which at least one half-course must be from each of Groups A and B :

## Group A:

CSC $343 \mathrm{HI}, 369 \mathrm{HI}, 458 \mathrm{HI}$

## Group B:

Any 300+ series ECO course

## Group C:

APM $462 \mathrm{HI} ; \mathrm{CSC} 30 \mathrm{IHI}, 302 \mathrm{HI}, 35 \mathrm{IHI}, 354 \mathrm{HI}, 363 \mathrm{HI} / 365 \mathrm{HI}$, $373 \mathrm{HI} / 375 \mathrm{HI}, 40 \mathrm{IHI}, 454 \mathrm{HI}$; ECE 385 HI ; STA $322 \mathrm{HI}, 347 \mathrm{HI}$, $437 \mathrm{HI}, 457 \mathrm{HI}$

## Computer Science \& Mathematics (Science Program)

Consult Student Counsellor, Department of Computer Science or Professor S.A. Cook, Department of Computer Science.
Enrolment in this Program is limited. Admission requirements are the same as for the Specialist Program in Computer Science.

## Specialist Program

(I5.5 full courses or their equivalent, including at least one 400series course)
First Year:
CSC $(108 \mathrm{HI}, 148 \mathrm{HI}) / 150 \mathrm{HI}$; MAT I57YI, 240 HI (See the Notes following the list of Basic Courses in the Course Categories above.)
First or Second Year:
CSC $240 \mathrm{HI}, 258 \mathrm{HI}, 207 \mathrm{HI}$; one full course English Writing Requirement (See the Course Categories above.)
Second Year:
CSC 265 HI ; MAT $247 \mathrm{HI}, 257 \mathrm{YI}, 267 \mathrm{HI}$; STA
257HI/352YI
Third Year: CSC $324 \mathrm{HI}, 365 \mathrm{HI}, 375 \mathrm{HI}$
Third or Fourth Years:
I. MAT $327 \mathrm{HI}, 347 \mathrm{Y}, 354 \mathrm{HI}, 357 \mathrm{HI}$.
2. One of CSC $438 \mathrm{HI}, 448 \mathrm{HI}, 465 \mathrm{HI}$; MAT 443 HI .
3. $\mathrm{CSC} 350 \mathrm{HI}, 35 \mathrm{IHI}$.
4. One of CSC $40 \mathrm{IHI}, 4 \mathrm{I} 8 \mathrm{HI}, 420 \mathrm{HI}, 428 \mathrm{HI}, 443 \mathrm{HI}, 456 \mathrm{HI}$, $458 \mathrm{HI}, 469 \mathrm{HI}, 485 \mathrm{HI}, 486 \mathrm{HI}, 487 \mathrm{HI}, 488 \mathrm{HI}$; ECE 489 HI .
5. APM $35 \mathrm{IYI} / \mathrm{MAT} 457 \mathrm{YI}$.
6. One of APM 46 IHI ; MAT $344 \mathrm{HI}, 464 \mathrm{HI}, 477 \mathrm{HI}$.

## Notes:

I. It is recommended that PHY I40YI be taken.

## Computer Science \& Physics (Science Program)

Consult Student Counsellor, Department of Computer Science, or Associate Chair (Undergraduate Studies), Department of Physics.
Enrolment in this Program is limited.Admission requirements are the same as for the Specialist Program in Computer Science. NOTE: Students in this Program should consult one or both Departments during the spring of each year, to ensure that they choose courses appropriate to their intended careers.

## Specialist Program

(I7.5 full courses or their equivalent, including at least one 400series course)
First Year:
CSC ( $108 \mathrm{HI}, 148 \mathrm{HI}) / I 50 \mathrm{HI}$; MAT I37YI/I57YI, $223 \mathrm{HI} / 240 \mathrm{HI}$; PHY I40YI (See the Notes following the list of Basic Courses in the Course Categories above.)
First or Second Year:
CSC $240 \mathrm{HI}, 207 \mathrm{HI}$; STA 247 HI ; one full course English Writing Requirement (See the Course Categories above.)
Second Year:
CSC $263 \mathrm{HI} / 265 \mathrm{HI}$; MAT $237 \mathrm{YI} / 257 \mathrm{YI}, 244 \mathrm{HI} / 267 \mathrm{HI}$; PHY $225 \mathrm{HI}, 25 \mathrm{IHI}, 252 \mathrm{HI}, 255 \mathrm{HI}, 256 \mathrm{HI}$
Third Year:
APM 346 HI ; CSC $324 \mathrm{HI}, 350 \mathrm{HI}$; MAT 334 HI ; PHY 35 IHI , $352 \mathrm{HI}, 355 \mathrm{HI}$

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Third or Fourth Years:
I. CSC $35 \mathrm{IHI}, 363 \mathrm{HI} / 365 \mathrm{HI} / 373 \mathrm{HI} / 375 \mathrm{HI}$
2. PHY $457 \mathrm{HI} / 459 \mathrm{HI} / 460 \mathrm{HI}$
3. $\mathrm{CSC} 40 \mathrm{IHI} 4 \mathrm{I} 8 \mathrm{HI} / 420 \mathrm{HI} / 428 \mathrm{HI} / 443 \mathrm{HI} / 458 \mathrm{HI} / 469 \mathrm{HI} /$ $485 \mathrm{HI} / 486 \mathrm{HI} / 487 \mathrm{HI} / 488 \mathrm{HI} / E C E 489 \mathrm{HI}$
4. I.5 courses from the 300-/400-level lab courses as described in the Notes to the Physics Specialist Program.

## Computer Science \& Statistics (Science

## Program)

Consult Student Counsellor, Department of Computer Science, or Undergraduate Secretary, Department of Statistics.

Enrolment in this Program is limited.Admission requirements are the same as for the Specialist Program in Computer Science.

## Specialist Program

(14.5 full courses or their equivalent, including at least one 400series course)
First Year:
CSC $(108 \mathrm{HI}, 148 \mathrm{HI}) / 150 \mathrm{HI}, 165 \mathrm{HI} / 240 \mathrm{HI}$; MAT
I37YI/I57YI (See the Notes following the list of Basic Courses in the Course Categories above.)
First or Second Year:
I. CSC $236 \mathrm{HI} / 240 \mathrm{HI}, 258 \mathrm{HI}, 207 \mathrm{HI}$
2. MAT $(223 \mathrm{HI}, 224 \mathrm{HI}) /(240 \mathrm{HI}, 247 \mathrm{HI})$
3. One full course English Writing Requirement (See the Course Categories above.)
Second Year: CSC $263 \mathrm{HI} / 265 \mathrm{HI}$; STA $257 \mathrm{HI}, 26 \mathrm{HI}$; MAT $237 \mathrm{YI} / 257 \mathrm{YI}$

## Third Year:

CSC $324 \mathrm{HI}, 350 \mathrm{HI}, 35 \mathrm{IHI}, 363 \mathrm{HI} / 365 \mathrm{HI}, 373 \mathrm{HI} / 375 \mathrm{HI}$; STA $302 \mathrm{HI},(347 \mathrm{HI}, 447 \mathrm{HI}) / 352 \mathrm{YI}$
Third or Fourth Years:
I. One of CSC $4 \mathrm{I} 8 \mathrm{HI}, 443 \mathrm{HI}, 456 \mathrm{HI}, 458 \mathrm{HI}, 469 \mathrm{HI}, 487 \mathrm{HI}$; MAT 443 HI
2. STA $437 \mathrm{HI} / 442 \mathrm{HI} / 457 \mathrm{HI}$
3. Two of CSC $3 \mathrm{I} 0 \mathrm{HI}, 32 \mathrm{IHI}, 354 \mathrm{HI}, 40 \mathrm{IHI}, 4 \mathrm{IIHI}, 4 \mathrm{I} 2 \mathrm{HI}$; STA 410 HI

## Human-Computer Interaction(Science Program)

Consult Student Counsellor, Department of Computer Science.
Enrolment in this Program is limited.Admission requires
(I) $65 \%$ in CSC $148 \mathrm{HI} / 150 \mathrm{HI}$, (2) either $60 \%$ in MAT
$135 \mathrm{YI} / \mathrm{I} 37 \mathrm{YI} / \mathrm{I} 57 \mathrm{YI}$ or $65 \%$ in $\mathrm{CSCI} 65 \mathrm{HI} / \mathrm{CSC} 240 \mathrm{HI}$, and
(3) a minimum CGPA of 2.0 . Students who do not meet these requirements on the first attempt will be considered on a case-by-case basis.

## Specialist Program

( 15 full courses or their equivalent, including at least one 400series course)
First Year:
I. CSC $165 \mathrm{HI} / 240 \mathrm{HI},(108 \mathrm{HI}, 148 \mathrm{HI}) / 150 \mathrm{HI}$ (See the Notes following the list of Basic Courses in the Course Categories above.)
2. MAT I35YI/I37YI/I57YI,
3. SOC IOIYI,

First or Second Year:
CSC $207 \mathrm{HI}, 236 \mathrm{HI} / 240 \mathrm{HI}$; PSYI00HI; one full course English Writing Requirement (See the Course Categories above.)

Second Year:
I. CSC $258 \mathrm{HI}, 263 \mathrm{HI} / 265 \mathrm{HI} ;$ STA 247 HI
2. MAT $223 \mathrm{HI} / 240 \mathrm{HI} ;$ SOC 200 HI

Third Year:
I. $\mathrm{CSC} 300 \mathrm{HI}, 318 \mathrm{HI}$
2. CSC $324 \mathrm{HI} / 343 \mathrm{HI}$
3. STA $248 \mathrm{HI} / \mathrm{PSY}(20 \mathrm{HI}, 202 \mathrm{HI}) / \mathrm{SOC}(202 \mathrm{HI}, 300 \mathrm{HI})$
4. PSY $270 \mathrm{HI}, 280 \mathrm{HI}$

Third or Fourth Year:
I. $\mathrm{CSC} 363 \mathrm{HI} / 365 \mathrm{HI} / 373 \mathrm{HI} / 375 \mathrm{HI}, 428 \mathrm{HI}$
2. Two of CSC $302 \mathrm{HI}, 418 \mathrm{HI} / 487 \mathrm{HI} / 420 \mathrm{HI}, 40 \mathrm{IHI} / 485 \mathrm{HI} /$ $486 \mathrm{HI} / 4 \mathrm{IIHI}, 443 \mathrm{HI} / 458 \mathrm{HI} / 469 \mathrm{HI}$
3. WDW 260 HI

## Notes:

I. Students in this Program should consult the Department of Computer Science at least annually to discuss their choice of courses, especially if they plan on graduate study.
2. Students who may be interested in other Programs sponsored by the Department of Computer Science must take MAT I37YI/I57YI and not MAT I 35 Y I.
3. It is recommended that you take a physical science course such as PHY I $38 \mathrm{Y} \mathrm{I} / \mathrm{I} 40 \mathrm{Y} \mathrm{I}$.
4. It is strongly recommended that you take at least one halfcourse in Human Factors or Ergonomics offered by the Department of Mechanical and Industrial Engineering, such as MIE $343 \mathrm{HI}, 448 \mathrm{HI}, 449 \mathrm{HI}$.
5. Other recommended courses include: CSC $309 \mathrm{HI}, 369 \mathrm{HI}, 454 \mathrm{HI}, 469 \mathrm{HI}$; SOC 387 YI ; PSY $305 \mathrm{HI}, 3 \mathrm{I} 2 \mathrm{HI}, 370 \mathrm{HI}, 37 \mathrm{IHI}, 372 \mathrm{HI}, 375 \mathrm{HI}, 3 \mathrm{I} 2 \mathrm{HI}$; JLP 374 HI
For advice on course choice and assistance in enrolment consult the Department of Computer Science.

## Bioinformatics and Computational Biology - see Life Sciences: Biochemistry

## Cognitive Science \& Artificial Intelligence - See

 University College ProgramsLinguistics and Computing- See Linguistics

## Computer Science Courses

See page 33 for Key to Course Descriptions
For Distribution Requirement purposes (see page 27), all CSC courses are classified as SCIENCE courses.

## Enrolment notes

NOTE:The University of Toronto Mississauga computer science Minor subject POSt is not recognized as a restricted CS subject POSt for St. George courses enrolments.
NOTE: No late registration is permitted in any CSC course after the first two weeks of classes.

Enrolment in most CSC courses above 100-level is restricted. Consult the Calendar or the Arts and Science Registration Handbook and Timetable for details.

## Prerequisites and exclusions

Prerequisites and exclusions are enforced. Please refer to the 2006-2007 Registration Handbook and Timetable for prerequisite waiver deadlines.

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## Dropping down from enriched to regular courses

Students may go to their college to drop down from enriched courses to regular courses. The courses are as follows:
from CSCl 48 HI to CSCl 08 HI , from CSCI 50 HI to
CSCI08HI, from CSC240HI to CSCI65H (or to CSC236HI if you have already passed CSCI 65 HI ), from CSC265HI to CSC 263 HI , from CSC 365 HI to CSC 363 HI , and from CSC375HI to CSC373HI.

Drop down deadlines:
Fall session - October 5, 2007
Winter session - February I, 2008

## Students with transfer credits

If you have transfer credits in Computer Science or a similar subject for courses done at another university or college, contact our Undergraduate Office (BA4252/4254) for advice on choosing courses. Ask for advice also even if you don't have transfer credits yet but are considering degree study at the University of Toronto. Without advice, you risk poor course choice or other adverse consequences.

## INXI99HI/YI First-Year Seminar 52S

## SCII99HI/YI First Year Seminar 52S

Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course; see page 47.

## CSCI04HI The Why and How of 26L, I3T Computing

An introduction to computing for non-computer scientists. History of computing machinery; representation of data and their interaction with operations; hardware, software, operating systems; problem solving and algorithms; social issues in computing; a gentle introduction to programming. This course is an introduction to becoming actively engaged with computing, not a tutorial on using particular computer applications. Exclusion: SMCI04HI;VICI04HI; any CSC course.

Choosing first year courses: To help you select the programming course that is right for you, see www.cs.toronto. edu/~campbell/firstyear.

CSCI08HI Introduction to Computer 39L, I2T, I2P Programming
Structure of computers; the computing environment. Programming in a language such as Python. Program structure: elementary data types,statements, control flow, functions, classes, objects, methods, fields. Lists; searching, sorting and complexity. Practical (P) sections consist of supervised work in the computing laboratory. These sections are offered when facilities are available, and attendance is required.
Exclusion: CSCI07HI, $120 \mathrm{HI}, 139 \mathrm{HI}, 148 \mathrm{HI}, 149 \mathrm{HI}, 150 \mathrm{HI}$. NOTE:You may not take this course after or concurrently with

CSCI 48 HI , but you may take CSCl 48 HI after CSCI 08 HI . Prerequisite: Grade 12 U/OAC mathematics.

## CSCI20HI Computer Science for <br> 26L, I2P

 the SciencesAn introduction to computer science for students in other sciences, with an emphasis on gaining practical skills. Introduction to programming; web programming; database design; software tools; examples and exercises taken from the sciences. At the end of this course you will be able to develop computer tools for scientific applications, such as the structuring and analysis of experimental data. Practical (P) sections consist of supervised work in the computer laboratory. No programming experience is necessary. Students who wish to do more can progress directly to $\mathrm{CSCI50HI}$.

## Exclusion: any CSC course.

## CSCl48HI Introduction to 26L, I3T, I2P Computer Science

Abstract data types and data structures for implementing them. Linked data structures. Encapsulation and informationhiding. Object-oriented programming. Specifications. Analyzing the efficiency of programs. Recursion. This course assumes programming experience in a language such as Python, $\mathrm{C}++$, or Java, as provided by CSCI08HI.
Students who already have this background may consult the Computer Science Undergraduate Office for advice about skipping CSCIO8HI. Practical (P) sections consist of supervised work in the computing laboratory. These sections are offered when facilities are available, and attendance is required. Students may go to their college to drop down from CSCl48HI to CSCl08HI. See above for the drop down deadline.
Exclusion: $\mathrm{CSCl} 39 \mathrm{HI}, 149 \mathrm{HI}, 150 \mathrm{HI}$; you may not take this course after taking more than two CSC courses at the 200level or higher.
Prerequisite: CSCI08HI; two of: Geometry and Discrete Mathematics, Advanced Functions and Introductory Calculus or Mathematics of Data Management OR two of: OAC Calculus, Algebra \& Geometry or Finite Mathematics.
CSCI50HI Accelerated Introduction 39L, I3T, I2P to Computer Science
An accelerated course covering object-oriented topics from CSCl 108 HI (classes, objects, methods and fields, and program design), as well as all the material of CSCI 48 HI . Suitable for students with a solid programming background in Turing, C, Scheme, or a similar language, who are willing to accept a heavier workload than in CSCl 08 HI and CSCl 48 HI .
Exclusion: CSCI07HI, $108 \mathrm{HI}, \mathrm{I} 39 \mathrm{HI}, 148 \mathrm{HI}, 149 \mathrm{HI}$; you may not take this course after taking more than two CSC courses at the 200-level or higher.
Prerequisite:Two of: Geometry and Discrete Mathematics, Advanced Functions and Introductory Calculus or Mathematics of Data Management OR two of: OAC Calculus, Algebra \& Geometry or Finite Mathematics; and one year of programming in a procedural language. Students should thoroughly understand arrays, searching, sorting, functions/procedures/subprograms, arguments and parameters, and modular design.
Students may go to their college to drop down from CSCl 50 HI to CSCl 08 HI . See above for the drop down deadline.

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## CSCl65HI Mathematical Expression and 26L, I3T Reasoning for Computer Science

Introduction to abstraction and rigour. Informal introduction to logical notation and reasoning. Understanding, using and developing precise expressions of mathematical ideas, including definitions and theorems. Structuring proofs to improve presentation and comprehension. General problem-solving techniques. Unified approaches to programming and theoretical problems. Representation of floating point numbers and introduction to numerical computation.
Exclusion: CSC $236 \mathrm{HI}, 238 \mathrm{HI}, 240 \mathrm{HI}$; MATIO2H5 (University of Toronto Mississauga);You may not take this course after taking more than two CSC courses at the 200 -level or higher.
Prerequisite: $\mathrm{CSCl} 08 \mathrm{HI} /(\mathrm{CSCI} 48 \mathrm{HI} / \mathrm{I} 50 \mathrm{HI}$ taken concurrently); U Advanced Functions and Introductory Calculus, and one of U Geometry and Discrete Mathematics or U Mathematics of Data Management OR OAC Calculus and one of Algebra \& Geometry or Finite Mathematics.
Recommended preparation: first term of MATI35YI/I37YI/ 157YI.
NOTE: It is recommended that $\mathrm{CSCI} 48 \mathrm{HI} / 150 \mathrm{HI}$ and $\mathrm{CSCl} 65 \mathrm{HI} / 240 \mathrm{HI}$ be taken at the same time, since each course relies on material from the other. If you take one before the other, it is preferable to take $\mathrm{CSCl} 48 \mathrm{HI} / / 50 \mathrm{HI}$ first. In any case, you will be at a modest disadvantage in the first of the two courses, and will be expected to pick up the relevant material from the other course on your own.

## Note

To enrol in any CSC course at the 200-level or higher, you must have a cumulative GPA of at least 2.50 ( 3.00 for $300-$ and 400 -level courses) or be enrolled in a restricted subject POSt sponsored by the Department of Computer Science. The University of Toronto at Mississagua Computer Science Minor is not a restricted subject POSt. If you are in your first year of degree studies, the GPA requirement does not apply.

## CSC207HI Software Design <br> 26L, I3T

An introduction to software design and development concepts, methods, and tools using a statically-typed object-oriented programming language such as Java. Topics from: version control, build management, unit testing, refactoring, design patterns, advanced IDE usage, regular expressions, markup languages, parsing using finite state machines, and reflection.
Prerequisite: CSCI $48 \mathrm{HI} / \mathrm{I} 50 \mathrm{HI}$; CGPA $2.5 /$ enrolment in a CSC subject POSt.
Co-prerequisite: $\mathrm{CSCl} 65 \mathrm{HI} / 240 \mathrm{HI} /(148 \mathrm{HI}$ as given before Fall 2003).

CSC209HI Software Tools and 26L, 13T Systems Programming
Software techniques in a Unix-style environment, using scripting languages and a machine-oriented programming language (typically C).What goes on in the operating system when programs are executed. Core topics: creating and using software tools, pipes and filters, file processing, shell programming, processes, system calls, signals, basic network programming. Exclusion: CSC $372 \mathrm{HI}, 408 \mathrm{HI}, 369 \mathrm{HI}, 468 \mathrm{HI}, 469 \mathrm{HI}$.
Prerequisite: CSC207HI/270HI/enrolment in Bioinformatics and Computational Biology (BCB) subject POSt; CGPA 2.5/ enrolment in a CSC subject POSt.

## CSC236HI Introduction to the Theory 26L, I3T of Computation

The application of logic and proof techniques to Computer Science. Mathematical induction; correctness proofs for iterative and recursive algorithms; recurrence equations and their solutions (including the "Master Theorem"); introduction to automata and formal languages.
Exclusion: CSC238HI, 240HI.
Prerequisite: $\mathrm{CSCI} 48 \mathrm{HI} / 150 \mathrm{HI}, 165 \mathrm{HI} /(148 \mathrm{HI}$ as given before Fall 2003); CGPA 2.5/enrolment in a CSC subject POSt.

## CSC240HI Enriched Introduction to 26L, I3T the Theory of Computation

The rigorous application of logic and proof techniques to Computer Science. Propositional and predicate logic; mathematical induction and other basic proof techniques; correctness proofs for iterative and recursive algorithms; recurrence equations and their solutions (including the "Master Theorem"); introduction to automata and formal languages. This course covers the same topics as CSC236HI, together with selected material from CSCI 65 HI , but at a faster pace, in greater depth and with more rigour, and with more challenging assignments. Greater emphasis will be placed on proofs and theoretical analysis. Certain topics briefly mentioned in CSCl 65 HI or CSC 236 HI may be covered in more detail in this course, and some additional topics may also be covered. Exclusion: CSC $236 \mathrm{HI}, 238 \mathrm{HI}$.
Prerequisite: OAC Calculus and one of Algebra \& Geometry or Finite Mathematics OR UAdvanced Functions and Introductory Calculus, and one of U Geometry and Discrete Mathematics or U Mathematics of Data Management, with high grades.
Recommended preparation: first term of MATI37YI/I57YI.
Co-requisite: CSCI48HI/I50HI; CGPA 2.5/enrolment in a CSC subject POSt.
NOTE: Students may go to their college to drop down from CSC240HI to CSCl65HI (or to CSC236HI if you have already passed CSCl 65 HI ). See above for the drop down deadline.

## CSC258HI Computer Organization 26L, 9P, 10T

Computer structures, machine languages, instruction execution, addressing techniques, and digital representation of data.
Computer system organization, memory storage devices, and microprogramming. Block diagram circuit realizations of memory, control and arithmetic functions. There are a number of laboratory periods in which students conduct experiments with digital logic circuits.
Exclusion: CSC257HI as given before 1985.
Prerequisite: $\mathrm{CSCI} 48 \mathrm{HI} / 150 \mathrm{HI}, 165 \mathrm{HI} / 240 \mathrm{HI} /(148 \mathrm{HI}$ as given before Fall 2003); CGPA $2.5 /$ enrolment in a CSC subject POSt.

CSC260HI Introduction to Scientific, 26L, 13T Symbolic, and Graphical Computation
Problems in transforming continuous mathematical models to discrete computational models. Inadequacy of naive computer solutions, and techniques to remedy inadequacies. Symbolic computation, plotting, 3-D graphics, and conventional programming languages. Intended for students from computer science, sciences and mathematics: for computer scientists, introduction to design and implementation of robust algorithms; for scientists, techniques in transforming scientific problems into computational solutions; for mathematicians, insight into

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differences between mathematical models and computational solutions.
Exclusion: CSCl 60 HI as taught in Spring 1992; after taking CSC $270 \mathrm{HI} / \mathrm{CSC} 263 \mathrm{HI} / 265 \mathrm{HI}$ and any $300-/ 400$-level CSC course, you may not take CSC260HI without Departmental permission in writing.
Prerequisite: CSCI 08 HI /computing experience, as from a good high school programming course; CGPA 2.5/enrolment in a CSC subject POSt.
Co-requisite: MATI35YI/I37YI/I57YI, $223 \mathrm{HI} / 240 \mathrm{HI}$.
CSC263HI Data Structures and Analysis 26L, I3T
Algorithm analysis: worst-case, average-case, and amortized complexity. Standard abstract data types, such as graphs, dictionaries, priority queues, and disjoint sets. A variety of data structures for implementing these abstract data types, such as balanced search trees, hashing, heaps, and disjoint forests. Design, implementation, and comparison of data structures. Introduction to lower bounds.
Exclusion: CSC $265 \mathrm{HI}, 378 \mathrm{HI}$.
Prerequisite: CSC $207 \mathrm{HI} / 270 \mathrm{HI}, 236 \mathrm{HI} / 238 \mathrm{HI} / 240 \mathrm{HI}$; STA247HI/255HI/257HI; CGPA 2.5/enrolment in a CSC subject POSt.
CSC265HI Enriched Data Structures 26L, I3T and Analysis
Algorithm analysis: worst-case, average-case, and amortized complexity. Standard abstract data types, such as graphs, dictionaries, priority queues, and disjoint sets. A variety of advanced data structures for implementing these abstract data types, such as AVL trees, self-adjusting data structures, perfect hashing, and binomial heaps. Design and comparison of data structures. This course covers the same topics as CSC263HI, but at a faster pace, in greater depth and with more rigour, and with more challenging assignments. Greater emphasis will be placed on proofs, theoretical analysis, and creative problemsolving. Certain topics briefly mentioned in CSC263HI may be covered in more detail in this course, and some additional topics may also be covered. Students without the exact course prerequisites but with a strong mathematical background are encouraged to consult the Department about the possibility of taking this course.
Exclusion: CSC $263 \mathrm{HI}, 378 \mathrm{HI}$.
Prerequisite: CSC207HI/270HI, 240 HI ; STA $247 \mathrm{HI} / 255 \mathrm{HI} /$
257HI; CGPA 2.5/enrolment in a CSC subject POSt.
NOTE: Students may go to their college to drop down from
CSC265HI to CSC263HI. See above for the drop down deadline.

## CSC290HI Communication Skills for Computer Scientists

Targeted instruction and significant practice in the communications required for careers in computer science. The curriculum covers written, oral, and interpersonal communication. Students will hand in short pieces of writing each week, will make oral presentations several times in the semester, and will work together in simulated project meetings and other realistic scenarios of pair and small group interaction. Prerequisite: enrolment in a CSC subject POSt.
CSC300HI Computers and Society 26L, I3T
Privacy and Freedom of Information; recent Canadian legislation and reports. Computers and work; employment levels, quality of working life. Electronic fund transfer systems; transborder data flows. Computers and bureaucratization. Computers in the home; public awareness about computers. Robotics.

Professionalism and the ethics of computers. The course is designed not only for science students, but also those in social sciences or humanities.
Exclusion: PSCD03H (University of Toronto Scarborough)
Prerequisite:Any half-course on computing; CGPA 3.0/
enrolment in a CSC subject POSt.
CSC30IHI Introduction to Software 26L, 13T Engineering
An introduction to agile development methods appropriate for medium-sized teams and rapidly-moving projects. Basic software development infrastructure; requirements elicitation and tracking; estimation and prioritization; teamwork skills; basic UML; design patterns and refactoring; security, discussion of ethical issues, and professional responsibility.
Prerequisite: CSC209HI, CSC263HI; CGPA 3.0/enrolment in a
CSC subject POSt
CSC302HI Engineering Large Software 26L, I3T Systems
An introduction to the theory and practice of large-scale software system design, development, and deployment. Project management; advanced UML; reverse engineering; requirements inspection; verification and validation; software architecture; performance modeling and analysis.
Prerequisite: CSC30IHI; CGPA 3.0/enrolment in a CSC subject POSt

CSC309HI Programming on the Web 26L, 13T
An introduction to software development on the web.
Concepts underlying the development of programs that operate on the web; survey of technological alternatives; greater depth on some technologies. Operational concepts of the internet and the web, static client content, dynamic client content, dynamically served content, n-tiered architectures, web development processes, and security on the web. Assignments involve increasingly more complex web-based programs. Guest lecturers from leading e-commerce firms will describe the architecture and operation of their web sites.
Prerequisite: CSC209HI, $343 \mathrm{HI} / 228 \mathrm{HI}$; CGPA 3.0/enrolment in a CSC subject POSt.
CSC3IOHI Information Theory 26L, I3T
Measuring information. The source coding theorem. Data compression using ad hoc methods and dictionary-based methods. Probabilistic source models, and their use via Huffman and arithmetic coding. Noisy channels and the channel coding theorem. Error correcting codes, and their decoding by algebraic and probabilistic methods.
Prerequisite: CSCI $48 \mathrm{HI} / 150 \mathrm{HI} / 260 \mathrm{HI}$; STA $247 \mathrm{HI} / 255 \mathrm{HI} /$ $257 \mathrm{HI} / I 07 \mathrm{HI} ;$ MATI $35 \mathrm{YI} / \mathrm{I} 37 \mathrm{Y}$ I, MAT $223 \mathrm{HI} / 240 \mathrm{HI}$; CGPA 3.0/enrolment in a CSC subject POSt.

| CSC318HI | The Design of Interactive <br> Computational Media |
| :--- | :--- |

User-centred design of interactive systems; methodologies, principles, and metaphors; task analysis. Interdisciplinary design; the role of graphic design, industrial design, and the behavioural sciences. Interactive hardware and software; concepts from computer graphics. Typography, layout, colour, sound, video, gesture, and usability enhancements. Classes of interactive graphical media; direct manipulation systems, extensible systems, rapid prototyping tools. Students work on projects in interdisciplinary teams. Enrolment limited, but non-computer scientists welcome.
Prerequisite: Any CSC half-course; CGPA 3.0/enrolment in a CSC subject POSt.

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Recommended preparation: CSC 300 HI provides useful background for work in CSC 318 HI , so if you plan to take CSC 300 HI then you should do it before CSC 318 HI .

## CSC320HI Introduction to Visual 26L, I3P

 ComputingA unified introduction to image synthesis and image analysis aimed at students with an interest in computer graphics, computer vision or the visual arts. Focus on three major topics: (I) visual computing principles - computational and mathematical methods for creating, capturing, analyzing and manipulating digital photographs (raster algorithms, image acquisition, basic image processing, image warping, anti-aliasing); (2) digital special effects - applying these principles to create special effects found in movies and commercials; (3) visual programming - using $\mathrm{C} / \mathrm{C}++$ and OpenGL to create graphical user interfaces for synthesizing and manipulating photographs. Prerequisite: CSC209HI/270HI/(207HI, proficiency in C or C++); MATI37YI, MAT $223 \mathrm{HI} / 240 \mathrm{HI}$; CGPA 3.0/enrolment in a CSC subject POSt.

## CSC32IHI Introduction to Neural 26L, I3P

 Networks and Machine LearningSupervised neural networks: the perceptron learning procedure, the backpropagation learning procedure and its applications. Elaborations of backpropagation: activation and error functions, improving speed and generalization, Bayesian approaches. Associative memories and optimization: Gibbs sampling, mean field search. Representation in neural networks: distributed representations, effects of damage, hierarchical representations. Unsupervised neural networks: competitive learning, Boltzmann machines, sigmoid belief nets.
Prerequisite: CSC207HI/270HI; MATI37YI, MAT $223 \mathrm{HI} / 240 \mathrm{HI}$; STA247HI/255HI/257HI; CGPA 3.0/enrolment in a CSC subject POSt.

## CSC324HI Principles of Programming 26L, I3T

 LanguagesMajor topics in the development of modern programming languages. Syntax specification, the evolution of programming languages (including abstract data types and object orientation, and contributions of C++ to language design) design and implementation of subprograms (including parameter passing techniques, and scope and lifetime of variables), run-time storage management (including garbage collection), and programming paradigms. Two non-procedural programming paradigms: functional programming (illustrated by languages such as Lisp, Scheme, ML or Haskell) and logic programming (illustrated by languages such as Prolog, XSB or Coral).

## Exclusion: CSC248HI.

Prerequisite: CSC207HI/270HI, $236 \mathrm{HI} / 238 \mathrm{HI} / 240 \mathrm{HI}$; CGPA
3.0/enrolment in a CSC subject POSt.

CSC330HI Logical Specifications 26L, I3T
Logic and its use as a declarative language in computer science. Syntax and semantics of propositional and predicate calculus. Proving entailment and non-entailment rigorously. Formal derivations. Satisfiability. Applications, including information systems, program verification, artificial intelligence, software engineering. Computational tools, including Prolog. Other logics. Exclusion: CSC230HI.
Prerequisite: $\mathrm{CSC} 236 \mathrm{HI} / 238 \mathrm{HI} / 240 \mathrm{HI}$; CGPA 3.0/enrolment in a CSC subject POSt.

CSC336HI Numerical Methods
26L, 13T
The study of computational methods for solving problems in linear algebra, non-linear equations, approximation, integration, and ordinary differential equations. The aim is to give students a basic understanding of both floating-point arithmetic and the methods used to solve numerical problems as well as a familiarity with the types of subroutines found in typical software packages.
Exclusion: ACT323HI, 335HI; CSC350HI, 35 IHI .
Prerequisite: CSC207HI/270HI/(260HI, $148 \mathrm{HI} / \mathrm{I} 50 \mathrm{HI})$; MATI33YI $(70 \%) / / 35 \mathrm{YI} / \mathrm{I} 37 \mathrm{YI} / \mathrm{I} 57 \mathrm{YI}, 223 \mathrm{HI} / 240 \mathrm{HI}$; CGPA 3.0/enrolment in a CSC subject POSt.

CSC343HI Introduction to Databases 26L, I3T Introduction to database management systems. The relational data model. Relational algebra. Querying and updating databases: the query language SQL. Application programming with SQL. Integrity constraints, normal forms, and database design. Elements of database system technology: query processing, transaction management.
Exclusion: CSC434HI.
Prerequisite: CSC $263 \mathrm{HI} / 265 \mathrm{HI} /(228 \mathrm{HI}, 238 \mathrm{HI}) / 378 \mathrm{HI}$; CGPA
3.0/enrolment in a CSC subject POSt.

CSC350HI Numerical Algebra and 26L, I3T Optimization
Floating-point arithmetic. The efficiency and stability of solution techniques for systems of linear equations and least squares problems, including LU- and QR-based methods. Eigenvalue and eigenvector calculations. Algorithms for systems of nonlinear equations and optimization problems, including linear programming.
Exclusion: CSC $336 \mathrm{HI} ; \mathrm{ACT} 323 \mathrm{HI}, 335 \mathrm{HI}$.
Prerequisite: CSC $207 \mathrm{HI} / 270 \mathrm{HI} /(260 \mathrm{HI}, \mathrm{I} 48 \mathrm{HI} / \mathrm{I} 50 \mathrm{HI})$;
MAT $223 \mathrm{HI} / 240 \mathrm{HI}, 237 \mathrm{YI} / 257 \mathrm{YI}$; CGPA 3.0/enrolment in a CSC subject POSt.
CSC35IHI Numerical Approximation, 26L, I3T Integration and Ordinary Differential Equations
Analysis of methods for approximation, integration and the solution of ordinary differential equations. Emphasis on the convergence and stability properties of the algorithms, rather than on their implementation.
Exclusion: ACT $323 \mathrm{HI}, 335 \mathrm{HI}$; CSC 336 HI .
Prerequisite: CSC350HI; CGPA 3.0/enrolment in a CSC subject POSt.

CSC354HI Discrete-Event Simulation 26L, I3T and Modelling
Simulation and mathematical analysis of models of queuing systems. Concentration on dynamic, stochastic, discreteevent systems. Simulation topics: selecting input probability distributions, generating random numbers and random variates, output data analysis for one or more system configurations, variance reduction techniques. Analysis topics: queuing characteristics, transient and steady-state behaviour, performance measures, the $M / M / I$ queue in detail, some nonMarkovian queues.
Prerequisite: CSC $209 \mathrm{HI} / 270 \mathrm{HI}$; MATI 37 YI ; STA
$247 \mathrm{HI} / 255 \mathrm{HI} / 257 \mathrm{HI}, 248 \mathrm{HI} / 250 \mathrm{HI} / 26 \mathrm{IHI} ;$ CGPA $3.0 /$ enrolment in a CSC subject POSt.

## Computer Science

## CSC363HI Computational Complexity 26L, I3T

 and ComputabilityIntroduction to the theory of computability:Turing machines, Church's thesis, computable and noncomputable functions, recursive and recursively enumerable sets, reducibility. Introduction to complexity theory: models of computation, P, NP, polynomial time reducibility, NP-completeness, further topics in complexity theory.
Exclusion: CSC $364 \mathrm{HI}, 365 \mathrm{HI}$.
Prerequisite: CSC $236 \mathrm{HI} / 238 \mathrm{HI} / 240 \mathrm{HI}$; CGPA 3.0/enrolment in a CSC subject POSt.
NOTE:Although the courses CSC 363 HI and CSC 373 HI can be taken in any order, we recommend that CSC 373 HI be taken first.

CSC365HI Enriched Computational 26L, I3T Complexity and Computability
This course covers the same topics as CSC 363 HI , but at a faster pace, in greater depth and with more rigour, and with more challenging assignments. Greater emphasis will be placed on proofs, theoretical analysis, and creative problemsolving. Certain topics briefly mentioned in CSC 363 HI may be covered in more detail in this course, and some additional topics may also be covered. Students without the exact course prerequisites but with a strong mathematical background are encouraged to consult the Department about the possibility of taking this course.
Exclusion: CSC $363 \mathrm{HI}, 364 \mathrm{HI}$.
Prerequisite: CSC240HI; CGPA 3.0/enrolment in a CSC subject POSt.
NOTE: Students may go to their college to drop down from CSC365HI to CSC363HI. See above for the drop down deadline.
NOTE: Although the courses CSC 365 HI and CSC 375 HI can be taken in any order, we recommend that CSC 375 HI be taken first.
CSC369HI Operating Systems 26L, I3T
Principles of operating systems. The operating system as a control program and as a resource allocator. The concept of a process and concurrency problems: synchronization, mutual exclusion, deadlock. Additional topics include memory management, file systems, process scheduling, threads, and protection.
Exclusion: CSC468HI.
Prerequisite: CSC258HI, $209 \mathrm{HI}, 207 \mathrm{HI} / 270 \mathrm{HI}$; CGPA 3.0/ enrolment in a CSC subject POSt.
CSC372HI Microprocessor Software 26L, 13T, 39P
Development of reliable efficient software for controlling and monitoring an environment. Concurrent programming techniques, such as interrupt handling, buffer management, polling and time outs. Projects use microprocessors to control equipment (such as a robot arm) and to read sensors. Design, implementation and testing of software using a language such as C.
Prerequisite: CSC209HI;258HI; CGPA 3.0/enrolment in a CSC subject POSt.
CSC373HI Algorithm Design \& Analysis 26L, 13T Standard algorithm design techniques: divide-and-conquer, greedy strategies, dynamic programming, linear programming, randomization, network flows, approximation algorithms, and others (if time permits). Students will be expected to show good design principles and adequate skills at reasoning about the correctness and complexity of algorithms.

Exclusion: CSC $375 \mathrm{HI}, 364 \mathrm{HI}$.
Prerequisite: CSC263HI/265HI/378HI; CGPA 3.0/enrolment in a CSC subject POSt.
NOTE: Although the courses CSC 373 HI and CSC 363 HI can be taken in any order, we recommend that CSC 373 HI be taken first.
CSC375HI Enriched Algorithm 26L, I3T Design \& Analysis
This course covers the same topics as CSC 373 HI , but at a faster pace, in greater depth and with more rigour, and with more challenging assignments. Greater emphasis will be placed on proofs, theoretical analysis, and creative problemsolving. Certain topics briefly mentioned in CSC 373 HI may be covered in more detail in this course, and some additional topics may also be covered. Students without the exact course prerequisites but with a strong mathematical background are encouraged to consult the Department about the possibility of taking this course.
Exclusion: CSC $373 \mathrm{HI}, 364 \mathrm{HI}$.
Prerequisite: CSC 265 HI ; CGPA 3.0/enrolment in a CSC subject POSt.
NOTE: Students may go to their college to drop down from CSC375HI to CSC373HI. See above for the drop down deadline.
NOTE: Although the courses CSC375HI and CSC 365 HI can be taken in any order, we recommend that CSC 375 HI be taken first.
CSC384HI Introduction to Artificial 26L, 13 T
Theories and algorithms that capture (or approximate) some of the core elements of computational intelligence. Topics include: search; logical representations and reasoning, classical automated planning, representing and reasoning with uncertainty, learning, decision making (planning) under uncertainty. Assignments provide practical experience, both theory and programming, of the core topics.

## Exclusion: CSC484HI.

Prerequisite: CSC 324 HI ; STA $247 \mathrm{HI} / 255 \mathrm{HI} / 257 \mathrm{HI}$; CGPA $3.0 /$ enrolment in a CSC subject POSt.
ECE385HI Microprocessor Systems 26L, 39P
A hardware-oriented course dealing with microprocessor systems. Microprocessor components, memory devices, input/ output techniques, bus structure, peripheral device controllers, hardware system and programming considerations. Laboratory experiments provide "hands-on" experience.
Prerequisite: CSC258HI; 209HI/proficiency in C; CGPA 3.0/ enrolment in a CSC subject POSt.
CSC40IHI Natural Language Computing 26L, I3T Introduction to techniques involving natural language and speech in applications such as information retrieval, extraction, and filtering; intelligent Web searching; spelling and grammar checking; speech recognition and synthesis; and multi-lingual systems including machine translation. N -grams, POS-tagging, semantic distance metrics, indexing, on-line lexicons and thesauri, markup languages, collections of on-line documents, corpus analysis. PERL and other software.
Prerequisite: CSC207HI/209HI/228HI; STA $247 \mathrm{HI} / 255 \mathrm{HI} /$
257HI; CGPA 3.0/enrolment in a CSC subject POSt.
Recommended preparation: MAT $223 \mathrm{HI} / 240 \mathrm{HI}$ is strongly recommended.

## Computer Science

## CSC4IOHI <br> Software Testing and

 VerificationConcepts and state of the art techniques in quality assessment for software engineering; quality attributes; formal specifications and their analysis; testing, verification and validation. Prerequisite: CSC30IHI.

## CSC4IIHI Machine Learning and 26L, I3T

 Data MiningAn introduction to methods for automated learning of relationships on the basis of empirical data. Classification and regression using nearest neighbour methods, decision trees, linear models, and neural networks. Clustering algorithms. Problems of overfitting and of assessing accuracy. Problems with handling large databases.
Prerequisite: CSC263HI/265HI/270HI; MATI37YI, STA
$247 \mathrm{HI} / 255 \mathrm{HI} / 257 \mathrm{HI}, 248 \mathrm{HI} / 250 \mathrm{HI} / 26 \mathrm{HI} ;$ CGPA $3.0 /$
enrolment in a CSC subject POSt.
Recommended preparation: CSC $336 \mathrm{HI} / 350 \mathrm{HI}$.
CSC4I2HI Probabilistic Learning and 26L, I3T

## Reasoning

An introduction to probability as a means of representing and reasoning with uncertain knowledge. Qualitative and quantitative specification of probability distributions using probabilistic graphical models. Algorithms for inference and probabilistic reasoning with graphical models. Statistical approaches and algorithms for learning probability models from empirical data. Applications of these models in artificial intelligence and machine learning.
Prerequisite: CSC4IIHI; CGPA 3.0/enrolment in a CSC subject POSt.
CSC4I8HI Computer Graphics 26L, I3T
Identification and characterization of the objects manipulated in computer graphics, the operations possible on these objects, efficient algorithms to perform these operations, and interfaces to transform one type of object to another. Display devices, display data structures and procedures, graphical input, object modelling, transformations, illumination models, primary and secondary light effects; graphics packages and systems. Students, individually or in teams, implement graphical algorithms or entire graphics systems.
Prerequisite: CSC $336 \mathrm{HI} / 350 \mathrm{HI} / 35 \mathrm{IHI} / 363 \mathrm{HI} / 364 \mathrm{HI} / 365 \mathrm{HI} /$
$373 \mathrm{HI} / 375 \mathrm{HI} / 378 \mathrm{HI}$, MATI37YI, CSC209HI/proficiency in
C or C++ ; CGPA 3.0/enrolment in a CSC subject POSt. Recommended preparation: MAT237YI, MAT244HI.

## CSC420HI Introduction to Image 26L, I3P

 UnderstandingIntroduction to fundamental concepts in image understanding, the subdiscipline of artificial intelligence dealing with the automation of visual tasks by computer. Exploration of a number of real-world image interpretation problems, as motivation for key low- and intermediate-level vision algorithms. A course project will include the construction of a number of practical vision systems.
Prerequisite: CSC $260 \mathrm{HI} / 263 \mathrm{HI} / 265 \mathrm{HI}, \mathrm{MATI} 35 \mathrm{YI} / / 36 \mathrm{YI} /$ I 37 Y I/I57YI, $223 \mathrm{HI} / 240 \mathrm{HI}$; CGPA 3.0/enrolment in a CSC subject POSt.
Recommended preparation: CSC320HI.
CSC428HI Human-Computer Interaction 26L, I3T Understanding human behaviour as it applies to user interfaces: work activity analysis, observational techniques, questionnaire administration and unobtrusive measures. Operating parameters
of the human cognitive system, task analysis and cognitive modelling techniques and their application to designing interfaces. Interface representations and prototyping tools. Cognitive walkthroughs, usability studies and verbal protocol analysis. Case studies of specific user interfaces.
Prerequisite: CSC3I8HI; STA247HI/255HI/257HI, STA(248HI/
$250 \mathrm{HI} / 26 \mathrm{IHI}) /(\mathrm{PSY} 20 \mathrm{HI}, 202 \mathrm{HI}) /(\mathrm{SOC} 202 \mathrm{HI}, 300 \mathrm{HI})$;
CSC $209 \mathrm{HI} /$ proficiency C++ or Java; CGPA 3.0/enrolment in a CSC subject POSt.
Recommended preparation:A course in PSY; CSC209HI, 407 HI .

## CSC438HI Computability and Logic 26L, I3T

Computable functions, Church's thesis, unsolvable problems, recursively enumerable sets. Predicate calculus, including the completeness, compactness, and Lowenheim-Skolem theorems. Formal theories and the Gödel Incompleteness Theorem. Exclusion: MAT309HI; PHL344HI.
Prerequisite: CSC $363 \mathrm{HI} / 364 \mathrm{HI} / 365 \mathrm{HI} / 373 \mathrm{HI} / 375 \mathrm{HI} /$
MAT247HI; CGPA 3.0/enrolment in a CSC subject POSt.
CSC443HI Database System Technology 26L, I3T
Implementation of database management systems. Storage management, indexing, query processing, concurrency control, transaction management. Database systems on parallel and distributed architectures. Modern database applications: data mining, data warehousing, OLAP, data on the web. Objectoriented and object-relational databases.
Prerequisite: CSC $343 \mathrm{HI} / 434 \mathrm{HI}, 369 \mathrm{HI} / 468 \mathrm{HI}, 364 \mathrm{HI} / 373 \mathrm{HI} /$
375HI; CGPA 3.0/enrolment in a CSC subject POSt.
CSC446HI Computational Methods for 26L, 13T Partial Differential Equations
Finite difference methods for hyperbolic and parabolic equations; consistency, convergence, and stability. Finite element methods for 2-point boundary value problems and elliptic equations. Special problems of interest.
Prerequisites: CSC $35 \mathrm{IHI} /(336 \mathrm{HI}$ (75\%))/equivalent mathematical background; MAT237YI/257YI;APM346HI/ $35 \mathrm{IYI} /(\mathrm{MAT} 244 \mathrm{HI} / 267 \mathrm{HI}$ and exposure to PDE's); CGPA 3.0/enrolment in a CSC subject POSt.

CSC448HI Formal Languages and 26L, I3T Automata
Regular, deterministic, context free, context sensitive, and recursively enumerable languages via generative grammars and corresponding automata (finite state machines, push down machines, and Turing machines). Topics include complexity bounds for recognition, language decision problems and operations on languages.
Prerequisite: CSC $236 \mathrm{HI} / 238 \mathrm{HI} / 240 \mathrm{HI}, 363 \mathrm{HI} / 364 \mathrm{HI} / 365 \mathrm{HI} /$ MAT247HI; CGPA 3.0/enrolment in a CSC subject POSt.

## CSC454HI The Business of Software 26L, I3T

Overview of the software industry, and principles of operation for successful software enterprises. Software business definition and planning; market and product planning; management of innovation, research and software development; software marketing and sales management; software manufacturing and support; financial management of high-technology ventures; human resource management and development in hightechnology industries. (Ordinarily offered in alternate years.)
Prerequisite: Five CSC half-courses at the 200-level or higher; CGPA 3.0/enrolment in a CSC subject POSt.
Recommended preparation: MGTI20HI.

## Computer Science

## CSC456H

## High-Performance

26L, I3T

## Scientific Computing

Computationally-intensive applications in science and engineering are implemented on the fastest computers available, today composed of many processors operating in parallel. Parallel computer architectures; implementation of numerical algorithms on parallel architectures. Topics from: performance evaluation; scientific visualization; numerical methods; applications from science and engineering. For students in computer science, applied mathematics, science, engineering. Prerequisite: $\mathrm{CSC} 350 \mathrm{HI} /(336 \mathrm{HI}(75 \%)) /$ equivalent mathematical background; CSC209HI/proficiency in C, C++ or Fortran; CGPA 3.0/enrolment in a CSC subject POSt.

CSC458HI Computer Networks 26L, I3T
Computer communication network design and operation. Representation of information on physical channels; error detection and recovery; local area networks; deadlock and congestion avoidance; internetworking and gateways; network naming and addressing; remote procedures. Emphasis on fundamental principles rather than case studies, but with examples from real networks.
Prerequisite: $\mathrm{CSC} 258 \mathrm{HI}, 354 \mathrm{HI} / 363 \mathrm{HI} / 364 \mathrm{HI} / 365 \mathrm{HI} /$
$372 \mathrm{HI} / 373 \mathrm{HI} / 375 \mathrm{HI} / 378 \mathrm{HI} / \mathrm{ECE} 385 \mathrm{HI}$; STA $247 \mathrm{HI} /$
$255 \mathrm{HI} / 257 \mathrm{HI} /(80 \%$ in STA $220 \mathrm{HI} / \mathrm{ECO} 220 \mathrm{YI})$; CGPA $3.0 /$ enrolment in a CSC subject POSt.

## CSC465HI Formal Methods in

Software Design
26L, I3T
The use of logic as an aid to programming. Formal semantics of programming languages: imperative programs, functional programs, parallel processes, communicating processes. Partial and total correctness. Refinement theorems: by steps, by parts, by cases. Semantics of recursion and the least-fixed-point construction; monotonicity, continuity. Semantics of data types; data refinement.
Prerequisite: CSC $236 \mathrm{HI} / 238 \mathrm{HI} / 240 \mathrm{HI} / \mathrm{MAT} 309 \mathrm{HI}$; CGPA 3.0/ enrolment in a CSC subject POSt. Recommended preparation: CSC $363 \mathrm{HI} / 364 \mathrm{HI} / 365 \mathrm{HI}$.
CSC469HI Operating Systems Design 26L, I3T and Implementation
An in-depth exploration of the major components of operating systems with an emphasis on the techniques, algorithms, and structures used to implement these components in modern systems. Project-based study of process management, scheduling, memory management, file systems, and networking is used to build insight into the intricacies of a large concurrent system.
Exclusion: CSC468HI.
Prerequisite: CSC 369 HI ; CGPA 3.0/enrolment in a CSC subject POSt.
CSC485HI Computational Linguistics 26L, I3T
Computational linguistics and the understanding of language by computer. Possible topics include: augmented context-free grammars; chart parsing, parsing in Prolog, statistical parsing; semantics and semantic interpretation; ambiguity resolution techniques; discourse structure and reference resolution; machine translation. Emphasis on statistical learning methods for lexical, syntactic and semantic knowledge.
Prerequisite: CSC324HI/experience in Lisp or Prolog; CGPA 3.0/enrolment in a CSC subject POSt.

Recommended preparation: Suggested background includes substantial programming experience and either a course in Al, such as CSC384HI, or a Linguistics course in syntax or semantics.

## CSC486HI Knowledge Representation 26L, I3T and Reasoning

Representing knowledge symbolically in a form suitable for automated reasoning, and associated reasoning methods: firstorder logic, entailment, the resolution method, Horn clauses, procedural representations, production systems, description logics, inheritance networks, defaults and probabilities, tractable reasoning, abductive explanation, the representation of action, planning.
Prerequisite: CSC $384 \mathrm{HI}, \mathrm{CSC} 363 \mathrm{HI} / 365 \mathrm{HI} / 373 \mathrm{HI} / 375 \mathrm{HI}$;
CGPA 3.0/enrolment in a CSC subject POSt.
Recommended preparation: CSC330HI.

## CSC487HI Foundations of Computer 26L, I3T

Vision
Introduction to vision, visual processes, and image understanding. Brief biological motivation for computational vision. Camera system geometry and image acquisition, basic visual processes for recognition of edges, regions, lines, surfaces. Processing colour, stereo images, and motion in image sequences. Active vision methods such as visual attention and interpretation-guided imaging system geometry changes. Object recognition. Applications of visual systems.
Prerequisite: CSC320HI/420HI; MAT235YI/237YI/257YI;
CGPA 3.0/enrolment in a CSC subject POSt.
CSC488HI Compilers and Interpreters 26L, I3T
Compiler organization, compiler writing tools, use of regular expressions, finite automata and context-free grammars, scanning and parsing, runtime organization, semantic analysis, implementing the runtime model, storage allocation, code generation.
Prerequisite: CSC258HI, $324 \mathrm{HI}, 263 \mathrm{HI} / 265 \mathrm{HI} / 378 \mathrm{HI}$; CGPA
3.0/enrolment in a CSC subject POSt.

Recommended preparation: Proficiency in C such as from CSC209HI.

## ECE489HI Compilers II 26L, 39P

Theoretical and practical aspects of building modern optimizing compilers. Topics: intermediate representations, basic blocks and flow graphs, data flow analysis, partial evaluation and redundancy elimination, loop optimizations, register allocation, instruction scheduling, interprocedural analysis, and memory hierarchy optimizations. Students implement significant optimizations within the framework of a modern research compiler. (This course is a cross-listing of ECE540HI, Faculty of Applied Science and Engineering.)
Prerequisite; CSC488HI; CGPA 3.0/enrolment in a CSC subject POSt.
Recommended preparation: ECE385HI, proficiency in C.
CSC490HI Capstone Design Project 52L
This half-course gives students experience solving a substantial problem that may span several areas of Computer Science. Students will define the scope of the problem, develop a solution plan, produce a working implementation, and present their work using written, oral, and (if suitable) video reports. Class time will focus on the project, but may include some lectures. The class will be small and highly interactive. Project themes change each year. In 2006/07 the theme was User interfaces for video games. At the time of printing, the theme for 2007/08 had not been chosen but see www.cs.utoronto. $\mathrm{ca} / \sim \mathrm{csc} 490 \mathrm{~h}$ for information about this year's topic themes and required preparation.
Prerequisite: Permission of the instructor; CGPA 3.0/enrolment in a CSC subject POSt.

## Computer Science

## CSC494HI/ Computer Science Project TBA 495HI

This half-course involves a significant project in any area of Computer Science. The project may be undertaken individually or in small groups. The course is offered by arrangement with a Computer Science faculty member.
Prerequisite:Three 300-level Computer Science half-courses, a CGPA of 3.00 ( 2.50 for students in a CSC Program), and permission of the Program Director, Undergraduate Studies.

## Criminology: see Woodsworth College

Croatian: See Slavic Languages and Literatures

## Czech: See Slavic Languages and

 Literatures
## Diaspora \& Transnational Studies

## Interdisciplinary program

Where is home? Need it be in one place? Is it always attached to territory? Diaspora and transnational studies examines the historical and contemporary movements of peoples and the complex problems of identity and experience to which these movements give rise as well as the creative possibilities that flow from movement. The program is comparative and interdisciplinary, drawing from the social sciences, history and the arts. Students are required to take two linked half-courses that offer an introduction to a broad array of themes and disciplinary methodologies. The program offers a wide selection of additional courses, giving students the opportunity to learn about a range of diasporic communities as well as key debates in the field.

## Diaspora and Transnational Studies Programs

## Major program

(7 full courses or their equivalent, including at least two 300+ series courses)
I. DTS200YI
2. Five full-course equivalents (FCEs) from Group $A$ and $B$ courses, with at least two FCEs from each group. Coverage must include at least two diasporic communities or regions, to be identified in consultation with the program advisor.
3. DTS40IHI, DTS402HI

## Minor program

(4 full courses or their equivalent, including at least one 300+ series course)
I. DTS200YI
2. Three full-course equivalents (FCEs) from Group $A$ and $B$ courses, with at least one FCE from each group.
3. Either DTS4OIHI or DTS 402 HI

## Group A (Humanities) Courses

Students are responsible for checking the co- and prerequisites for all courses in Groups A and B.

Note: course $=$ one full course or the equivalent in half courses.

| East-Asian Studies |  |
| :--- | :--- |
| EAS202YI | Modern East-Asian History |
| EAS27IHI | 20 |
| 2th Century Korean History |  |

ENG370HI Postcolonial and Transitional Discourses

| Finno-Ugric Studies |  |
| :--- | :--- |
| FIN320HI | The Finnish Canadian Immigrant Experience |
| French |  |
| FRE332HI | Francophone Literature I |
| FRE43 IHI | Francophone Literature II |
| German |  |
| GER362HI | Soviet and Kosher: Jewish Culture in the Soviet <br> Union |
| GER364HI | History of Yiddish Cinema |


| History |  |
| :---: | :---: |
| HIS202HI | Gender, Science and Technology |
| HIS206YI | Medieval History of the Jewish People |
| HIS208YI | Modern History of the Jewish People |
| HIS232YI | The British Imperial Experience |
| HIS294YI | Caribbean History and Culture |
| HIS296YI | Black Freedom |
| HIS303YI | The Mediterranean, 600-I700: Crusade, Colonialism, Diaspora |
| HIS305HI | Popular Culture and Politics in the Modern Caribbean |
| HIS3I2HI | Immigration to Canada |
| HIS324YI | Science, Technology, and the Development of Modern Culture |
| HIS326YI | Chinese Migration |
| HIS338YI | The Holocaust: Nazi Germany, Occupied Europe and the Destruction of European Jewry |
| HIS345HI | History and Film |
| HIS356HI | Zionism and Israel |
| HIS359HI | Regional Politics and Radical Movements in the 20th Century Caribbean |
| HIS360YI | African-Canadian History, 1606-Present |
| HIS366YI | Black Canadian Women's History |
| HIS367HI | History of Images |
| HIS369YI | Aboriginal Peoples of the Great Lakes from 1500 |
| HIS370HI | The Black Experience in the United States Since the Civil War |
| HIS476YI | Voices From Black America |
| HIS384HI | Colonial Canada: the East |
| HIS386HI | Muslims in India and Pakistan |
| HIS393HI | Slavery and the American South |
| HIS394HI | South Asian Migration and Settlement |
| HIS403YI | Jews and Christians in Medieval and Renaissance Europe |
| HIS408YI | History of Race Relations in America |
| HIS4I7HI | Globalization, Science, and Technology |
| HIS433HI | Polish Jews Since the Partition of Poland |
| HIS435YI | Linguistic and Cultural Minorities in Europe |
| HIS437HI | A History of the Black Autobiographical Tradition in Canada |
| HIS444HI | Topics in Jewish History: Jewish Identity in the Modern World |
| HIS445HI | Nationalism |
| HIS446YI | Gender and Slavery in the Atlantic World |
| HIS456YI | Black Slavery in Latin America |
| HIS472HI | Topics in Canadian Aboriginal/Non-Aboriginal Relations |
| HIS480HI | Modernity and its Others: History and Postcolonial Critique |
| HIS484HI | The Car in History: Business, Space, and Culture in North America |
| HIS487HI | Travelers and Scholars East/West |
| Innis Colleg |  |
| INI327Y\| | Race and Representation |
| INI380YI | Contemporary World Cinema |
| Italian Studies |  |
| ITA233YI | Ethnicity and Mainstream Italian Canadian Culture |
| ITA334HI | Italian Canadian Literature I: Life in a New World |
| ITA493HI | Italian Canadian Literature II |
| Near and Middle Eastern Civilizations |  |
| NMC274YI | Steppe Frontier in Islamic History |
| NMC357HI | Mass Media and/in the Middle East |

## Diaspora \& Transnational Studies

| NMC370YI | Ancient Israel |
| :---: | :---: |
| NMC385HI | Intellectuals of the Arab World |
| NMC475HI | Orientalism and Occidentalism |
| New College - African Studies |  |
| NEW296YI | Black Freedom |
| New College - Caribbean Studies |  |
| NEW223YI | Caribbean Literature and Society |
| NEW224YI | Caribbean Thought I |
| NEW324YI | Caribbean Thought II |
| NEW325HI | Caribbean Women Thinkers |
| NEW326YI | Indenture, Survival, Change |
| NEW327YI | The Hispanic Caribbean: Insights and Images of Cuba |
| New College - Equity Studies |  |
| NEW343H | The Romani Diaspora in Canada |
| New College - Women's Studies |  |
| WGS368HI | Gender and Cultural Difference:Transnational Perspectives |
| WGS369YI | Studies in Post-Colonialism |
| WGS380HI | Aboriginal, Black and Immigrant Women in the Land of Dollars |
| WGS445HI | Migrations and the Sacred |
| Religion |  |
| RLG243HI | Diasporic Religions |
| RLG34IHI | Dreaming of Zion: Exile and Return in Jewish Thought |
| RLG430HI | Jewish Culture in Medieval Latin, Greek, and Arabic Europe |
| Slavic Languages and Literature |  |
| SLA 302HI | The Imaginary Jew |
| St. Michael's College |  |
| SMC4I3HI | The Irish in Canada |
| SMC4I4HI | The Scots in Canada |
| SMC4I6HI | Irish Nationalism in Canada and the United States |
| Spanish and Portuguese |  |
| SPA480HI | Theories of Culture in Latin America |
| SPA486HI | Contemporary Caribbean Literatures and Identities |
| Victoria College |  |
| VIC350YI | Creative Writing:A Multicultural Approach |
| Group B (Social Sciences) courses |  |
| Anthropology |  |
| ANT347YI | Metropolis: Global Cities |
| ANT426HI | Orientalism:Western Views of the Other |
| ANT440YI | Global Society in Transition |
| JAP256HI | African Systems of Thought |
| Geography |  |
| GGR2I6HI | Global Cities |
| JGI216HI | Urbanization \& Global Change |
| GGR256HI | Recreation and Tourism |
| GGR336HI | Urban Historical Geography of North America |
| GGR346HI | The Urban Planning Process |
| GGR350HI | Canada in a Global Context |
| GGR36IHI | Understanding the Urban Landscape |
| GGR362HI | Cities of Difference |
| GGR363HI | Critical Geographies: An Introduction to Radical Ideas on Space, Society and Culture |


| GGR366HI | Historical Toronto |
| :--- | :--- |
| GGR368HI | Geography of Language |
| GGR435HI | Technology, Toronto, and Global Warming |
| GGR452HI | Space, Power, Geography: Understanding |
|  | Spatiality |

Plus courses identified by University of Toronto Scarborough as

## Diaspora \& Transnational Studies

a Group A courses

| Group B (Social Science) Courses |  |
| :--- | :--- |
| ANTB08H3 | The Chinese Diaspora |
| ANTC34H3 | The Anthropology of Transnationalism |
| GGRCI9H3 | Spaces of Multiraciality: Critical Mixed Race <br> Theory |
| GGRC45H3 | Local Geographies of Globalization |
| POLA8IH3 | Leaving Home: Politics and Emigration |
| SOCC25H3 | Comparative Ethnic and Race Relations <br> SOCC34H3 |
|  | Globalization: Causes, Consequences and <br> Critique |

Plus courses identified by University of Toronto Scarborough as Group B courses.

University of Toronto Mississauga courses that can be applied to the program

## Group A (Humanities) Courses

| ENG272H5 | Literature and Exile |
| :--- | :--- |
| ENG27IH5 | Diasporic Literatures in Toronto |
| ENG370H5 | Postcolonial and Transitional Discourses |
| FRE290Y5 | Aspects of Francophone Cultures |
| FRE390H5 | Women of the Francophone World |
| FRE395H5 | Films of the Francophone World |
| LIN366H5 | Creoles |
| VCC302H5 | Visual Culture Through the Post Colonial Lens |
| VCC304H5 | Visual Culture and the Construction of Identity |
| WGS335H5 | Immigrant and Refugee Women |
| WGS369Y5 | Gender, Colonialism and Cultural Resistance |

## Group B (Social Science) Courses

| ANT36IH5 | African Cultures |
| :--- | :--- |
| POL362H5 | Decolonizing Political Science I |
| POL363H5 | Decolonising Political Science II |
| SOC236H5 | Critical Theories of Globalization |
| SOC332H5 | Race and Ethnicity |
| SOC333H5 | Race and Ethnicity II |
| SOC338H5 | Global Diasporas |
| SOC339H5 | Social and Ecological Issues in Globalization |
| SOC353H5 | Sociology of Globalization since I945 |
| SOC354H5 | Global Sociology |

Plus courses identified by University of Toronto Mississauga as Group B courses

## Diaspora and Transnational Studies Courses

For Distribution Requirement purposes (see page 27), all DTS courses are classified as SOCIAL SCIENCE or HUMANITIES courses.

| DTS200Y I | Introduction to Diaspora and <br> Transnational Studies I <br> (formerly DTS20 I HI, 202HI) |
| :--- | :--- |
| An interdisciplinary introduction to the study of diaspora, |  |

Exclusion: DTS2OIHI, 202HI

| DTS40IHI | Advanced Topics in Diaspora <br> and Transnationalism <br> (Postcolonialism and Diaspora) |
| :--- | :--- |

This will be a course using the intersections between Postcolonialism and Diaspora Studies to explore issues of place, memory, and identity. The course will be comparative and interdisciplinary with a focus on literature, anthropology, political science and cultural studies.

| DTS402HI | Advanced Topics in Diaspora <br> and Transnationalism <br> (Critical Approaches to Diaspora <br> Studies) | 26S |
| :--- | :--- | :--- |

Course critically examines theoretical and methodological approaches adopted by different disciplines to the subject of Diaspora and Transnational Studies. Classes will engage with community actors and organizations and will be comparative and interdisciplinary with a focus on literature, anthropology, political science and cultural studies.

## Drama is sponsored by University College

## Faculty

## Director

TBA
Professor
P. Kleber, MA, Ph D

Associate Professor
A. Ackerman, MA, Ph D

Assistant Professors
A. Budde, MA, Ph D
A. Egoyan, BA
A. Janson, MA

## Senior Lecturers

S. Bush
K. Gass, BA

## Lecturers

S. Lyons, BA

The Drama Program (Specialist, Major, Minor) offers students the opportunity to combine high standards of practical, professional theatre training with a rich and rigorous academic program. The Program offers courses in dramatic literature, dramaturgy, stage theory, theatre history, production, design, direction, and performance. Students are required to take structured combinations of courses interrelated so as to lead to a broad knowledge of the field as a whole. The Combined Specialist programs in English and Drama also provides a specialist alternative to Drama alone, while a Drama Major or Minor may be valuably combined with programs in a wide variety of other fields, as offered both by language and literature departments (English, French, German, Italian, Spanish and Portuguese, etc.) and other departments and programs such as Anthropology, Canadian Studies, Cinema Studies, Classics, Commerce, Fine Art, History, Music, Psychology, Religion, Sociology, and Women's Studies.

The Drama Program is housed in the Helen Gardiner Phelan Playhouse at University College. Besides providing instruction in theatre studies, the Drama Program has mounted international theatrical events and conferences, and its students have toured Europe and Asia. The Program has also forged links with leading Canadian theatres and has regular contact with worldrenowned international theatre artists. More details on the Drama Program, including application forms, can be found on the web site at: www.ucdp.utoronto.ca. The Program Director and Academic Administrative Assistant are also available for consultation. For enquiries or an appointment call the Drama Program Administrative Assistant at 416-978-8099 or send an e-mail to uc.drama@utoronto.ca

DRM courses are staffed by a combination of theatre professionals, members of other university departments, and specific DRM staff members. Some courses are restricted to students in a Drama Specialist, Major, or Combined Specialist program; some are open to all students of the University.

## Drama Programs

## Drama (Arts program)

Consult the Director, Room 300, 79A St. George St., University College.
Enrolment in the Specialist and Major programs is limited and selection is made after a personal interview and audition. Students will be admitted to the Major only after they have been admitted to DRM 200YI (with DRM 20IYI) or DRM 254 Y I, and to the Specialist only after they have been admitted to a third course from Group B (other than DRM 301 YI ).
Enrolment in the Minor program is unrestricted. Students in the Minor program may only take academic courses.

## Specialist program:

( 12 full courses or their equivalent, including at least four 300+ series with at least one 400 level)
First Year:
One or both of DRM I00YI, DRM 200YI (with DRM 20IYI as co-requisite)
Higher Years:
I DRM 200YI (and DRM 201YI) if not taken in First Year
2. From Group A (below): DRM 230 YI and three of DRM $260 \mathrm{HI}, 262 \mathrm{HI}, 266 \mathrm{HI}, 268 \mathrm{HI}$ and 364 HI
3. DRM 300 YI and 30 IYI
4. From Group C: one full-course equivalents
5. From Group $D$ : one full-course equivalents
6. 2.5 courses from Groups A, B, C, D, E, to make up the total of 12 courses

## Major program:

(8 full courses or their equivalent including at least two 300+ series courses)

## Option A

First Year:
One or both of DRM I00YI, DRM 200YI (with DRM 20IYI as co-requisite)
Higher Years:
I. DRM 200YI \& 20IYI (if not taken in first year)
2. DRM $300 \mathrm{YI} \& 30 \mathrm{Y}$ I
3. From Group A: DRM 230 YI and two of DRM 260 HI , $262 \mathrm{HI}, 266 \mathrm{HI}, 268 \mathrm{HI}$ and 364 HI
4. From Groups C and/or D: one full-course equivalent

## Option B

First Year:
One or both of DRM 100YI, DRM 200YI (with DRM 20IYI as co-requisite)
Higher Years:
I. DRM 200YI \& DRM 201 YI (if not taken in first year)
2. DRM 254 Y I
3. From Group A: DRM 230 Y I and three of DRM 260 HI , $262 \mathrm{HI}, 266 \mathrm{HI}, 268 \mathrm{HI}$ and 364 HI
4. From Groups C and/or D: one and a half course equivalents
Option C
First Year: DRM IOOYI
Higher Years:
I. DRM 254 Y I
2. DRM 354 YI
3. From Group A: DRM 230 YI and three of DRM 260 HI , $262 \mathrm{HI}, 266,268 \mathrm{HI}$, and 364 HI
4. From Groups $C$ and/or D: two and a half course equivalents

## Minor program:

(4 full courses or their equivalent including at least one 300+ series course)
I. DRM IOOYI and one full-course equivalent from Groups $C$, D (below)
2. Two half-courses from Group A (excluding DRM 230 Y I and DRM 43IYI)
3. One full-course equivalent from Groups A (excluding DRM 230 YI and DRM 43IYI), C, D or E

## Note:

Students in the Minor program are not eligible for practical courses

## Group A:

DRM $230 \mathrm{YI}, 260 \mathrm{HI}, 262 \mathrm{HI}, 266 \mathrm{HI}, 268 \mathrm{HI}, 280 \mathrm{HI}, 28 \mathrm{HI}$, $364 \mathrm{HI}, 386 \mathrm{HI}, 43 \mathrm{IYI}, \mathrm{JDC} 400 \mathrm{YI}, 4 \mathrm{IOHI}$

## Group B:

DRM 200YI, 20IYI, 254YI, 300YI, $30 \mathrm{IYI}, 328 \mathrm{HI}, 354 \mathrm{YI}$, $400 \mathrm{YI}, 40 \mathrm{IHI}, 402 \mathrm{YI}, 403 \mathrm{YI}, 486 \mathrm{HI}$; ENG 369 YI (playwriting section) Note: Students taking a practical course (Group B) are required to take an academic corequisite (Groups A, C, D)
Group C:
ENG $220 \mathrm{YI}, 223 \mathrm{HI}, 330 \mathrm{HI}, 33 \mathrm{IHI}, 332 \mathrm{YI}, 333 \mathrm{HI}, 334 \mathrm{HI}$, $335 \mathrm{HI}, 336 \mathrm{HI}, 337 \mathrm{HI}, 338 \mathrm{YI}, 339 \mathrm{HI}, 340 \mathrm{HI}, 34 \mathrm{HI}$, $342 \mathrm{HI}, 352 \mathrm{HI}$,

## Group D:

ABS 34 IHI ; CLA $382 \mathrm{HI}, 383 \mathrm{HI}$; EAS 233 HI ; FRE 3 I 5 HI , $3 \mathrm{I} 7 \mathrm{HI}, 359 \mathrm{HI}, 360 \mathrm{HI}, 372 \mathrm{YO}$; GER 232 HI ; GRK 35 IHI , $352 \mathrm{HI}, 45 \mathrm{IHI}, 452 \mathrm{HI} ; \mathrm{HUN} 450 \mathrm{HI}$; ITA $390 \mathrm{HI}, 4 \mathrm{I} 0 \mathrm{HI}$, $4 \mathrm{I} 5 \mathrm{HI}, 426 \mathrm{HI} ; \mathrm{JDC} 400 \mathrm{HI} ;$ LAT $35 \mathrm{IHI} / 45 \mathrm{IHI} ;$ NEW 422 YI ; SLA $337 \mathrm{HI}, 418 \mathrm{HI}, 476 \mathrm{HI}$; SPA $452 \mathrm{HI}:$ UNI 202 HI

## Group E:

MUS 206 HI ; SLA $424 \mathrm{HI}, 476 \mathrm{HI}$

## Other:

DRM I00YI, $390 \mathrm{YI} / 39 \mathrm{IHI}, 490 \mathrm{YI} / 49 \mathrm{IHI}$. (These may be applied to Groups A,B,C,D,E on petition to, and approval by, the Drama Program Committee)

## Drama and English (Arts program)

Consult the Director, Room 300, 79A St. George Street, University College.
Enrolment in this program is limited and selection is made after a personal interview and audition. Upon admission to DRM 200YI or DRM 254 YI students may enroll in the double major in English and Drama; upon admission to a third course from Group B students may change their enrolment to the Drama and English Specialist program.

## Specialist program:

(14 to 15 full courses or their equivalent, with at least four $300+$ series courses including at least one 400 -series course)

## English:

Same as the English Major program (see English)

## Drama:

First Year:
One or both of (a) DRM I00YI, (b) DRM 200YI (with DRM
201 HI as co-requisite)
Higher Years:
See Drama Major requirements (Please note: the combination of Majors require twelve separate courses to meet Honours degree requirements).

## Drama Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes, all DRM courses are classified as HUMANITIES courses.
DRMIOOYI Drama: Form and Style 78L
An introduction to the study of dramatic literature, with particular reference to the realization of plays upon the stage. Plays from a variety of periods and countries are studied in terms of the use of theatrical space, plot and generic structure, characterization, theme, and language.
DRM200YI Introduction to Performance I04P Emphasis is initially on ensemble, non-verbal, and improvisational work. Students proceed to the application of their acquired skills to scripted material.
Pre- or Co-requisite:DRMIOOYI or DRM230YI
Co-requisite: DRM20IYI

| DRM20IYI | Voice for the Actor I | 52P, 2T |
| :--- | :--- | :--- |
|  | Movement for the Actor I | 52P, 5T |

A voice and movement component, taken in conjunction with DRM200YI: Introduction to Performance. Work consists of both theory and practice of voice and movement as they relate to the development of the actor.
Co-requisite: DRM200YI

## DRM230YI Concepts of Twentieth-Century Theatre

(Drama Minors are not eligible to enroll)
The work of selected theorists and practitioners of the 20th century and their contrasting ideas on the kind of expression and communication possible through the medium of the theatre. A study of how the interrelationship between director, actor, playwright and text influences the style of performance and the nature of audience response.
Prerequisite:DRMIOOYI

## DRM254YI Production 56L, I00P

A detailed analysis of the production element of theatre: the conceptual and practical problems of design, production personnel and organization, production facilities, business management, publicity, sound and lighting equipment.
Prerequisite:DRMIOOYI
Co-requisite: DRM230YI
DRM260HI History of the Greek and 39L Roman Theatre
The physical structures of the Greek and Roman theatre and the major conventions of production and staging, based on the evidence of art, archaeology, and the texts of the plays themselves, from the origins and development of the drama at Athens in the 6th century B.C. to the decline of stage drama in Rome in the Ist century B.C. (Not offered in 2007/2008))

## DRM262HI Experimentation and Innovation: 39L A Comparative History of World Theatre from Ancient Times Until the Present

An intercultural and comparative analysis of innovative processes within world theatre. Focusing on selected periods, the course explores the cultural backgrounds of key events or turning points in pre-modern and modern theatre and their indications for post-modern theatre developments in a globalized world.
Recommended Preparation: DRM364

## DRM268HI Canadian Theatre History 39L

A survey from the origins to the present, including performance rituals of native people; theatrical performances during the colonial period; the development of National and Regional forms of theatre; Festival and alternative theatres; trends in Canadian playwriting and their relationship to theatre history. (Not offered in 2007/2008)

## DRM299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.
DRM300YI Performance I I56P
Continuation of DRM200YI, concentrating upon scene study.
Scenes are developed through analysis of text and sub-text,
the establishing of scene objectives, improvisation, and physical action.
Prerequisite: DRM200YI, permission of University College Drama Program Committee
Co-requisite: DRM230YI (or full course from Group A if DRM230 already completed),
DRM30IYI Voice for the Actor II 52P, 2.5T

## Movement for the Actor II 52P, 2T

A voice and movement component, taken in conjunction with DRM300YI: Performance I.Work consists of both theory and practice of voice and movement as they relate to the development of the actor.
Prerequisite: DRM200YI, 20IYI
Co-requisite: DRM300YI
DRM3IOHI Contemporary American Drama 39L
American dramas of the last 50 years. Structural, historical, and thematic approaches to self-consciously theatrical works and to the idea of America itself. Authors include Miller, Williams, Albee, Baraka, Kennedy, Hansberry, Shepard, Fornes, Mamet, Kushner, and performance artists such as Karen Finley and Laurie Anderson. (Not offered in 2007/2008)

## DRM328HI The Art and Craft of Playwriting 39L

A hands-on study of the craft of dramatic writing. The class examines the basic elements of playwriting such as plot, structure, theme, character, dialogue, setting, with an emphasis on storymaking. Attention is given to the development of students' own work through written assignments and in-class exercises.
Prerequisite: DRM230YI, permission of the instructor
DRM354YI Stage and Costume Design I 52L, 26P
A detailed exploration of theatrical stage and costume design, historical and contemporary, theatrical and practical.
Prerequisite: Permission of University College Drama Program Committee
DRM364HI History of Western Theatre from 39L the Renaissance to 1900
(formerly DRM 264HI)
Modes of theatre in selected periods and cultures in Early Modern Europe from the Renaissance to the end of the 18th century. Constitution of the audience and of acting companies; the relationship between the plays, the players, and the audience. The development of theatre theory, criticism and dramaturgy in their historical and cultural context. (Offered in alternate years)
Exclusion: DRM264HI

## DRM385Y I/ Topics in Drama

TBA

## 386HI

An in-depth examination of selected issues in the Theatre.
Content may vary depending on instructor. See Undergraduate
Handbook or the UC Drama Program website for more details.

## DRM390YI/ Independent Studies in Drama TBA

391 HI
A topic chosen by the individual student. The student must work out details with a member of faculty who is willing to act as supervisor. A written proposal, signed by both student and instructor, must then be submitted for approval to the Drama Program Committee prior to registration and normally by May 31 of the preceding academic year. Open to advanced Specialist and Major students in the program.
Prerequisite: Permission of University College Drama Program Committee

## DRM400YI Performance II <br> 247P

Continuation of DRM300YI, concentrating on advanced performance techniques.
Prerequisite: DRM300YI, permission of University College
Drama Program Committee
Co-requisite: DRM40IHI
$\begin{array}{lll}\text { DRM40IHI } & \text { Voice for the Actor III } & \text { 52P, 2T } \\ & \text { Movement for the Actor III } & \text { 52P, 2T }\end{array}$
A voice and movement component to be taken with
DRM400YI: Performance II. Work consists of both theory and practice of voice and movement as they relate to the development of the actor.
Co-requisite: DRM400YI
JDC400YI Dramatic Text and Theatrical $52 S$ Communication
This course tests Brecht's idea of theatrical two-way communication by addressing three topics: what did Brecht mean; how can theatre communicate; how far did Brecht, Robert Wilson and Robert LePage move in their direction. Prerequisite: DRM230YI; permission of instructor. Limited to
fourth-year students. (Not offered in 2007/2008)
JIA400HI Interdisciplinary Practice for I56P

This course will examine different versions of Salome to explore the interconnectedness of the arts. Between sessions, students will be required to meet and develop projects connected to their study that will involve a range of media, including theatre, film, music and visual art (installation). This is a Humanities course limited to fourth-year students. (Not offered in 2007/2008)
DRM402YI Seminar in Directing
Techniques of rehearsal process; staging. The role of the director in its varying relationships to text, actor and audience.
Prerequisite: DRM200YI, 230YI, 254YI, two of DRM 260HI,
$266 \mathrm{HI}, 268 \mathrm{HI}, 364 \mathrm{HI}$ and permission of the University CollegeDrama Program Committee
Co-requisite: DRM43IYI
DRM403YI Performance III 208P
An in-depth study on a theoretical and practical level of a specific play which is presented to the public. This involves an intensive exploration of character in rehearsal and its discovery in performance.
Prerequisite: Permission of University College Drama Program Committee
Co-requisite: DRM43IYI

Pre- or co-requisite: DRM400Y।
Exclusion: DRM40IYI
JDC4IOHI New Approaches to Theatre History 52S
An upper level seminar in Theatre History.Topics vary from year to year.
Prerequisite: DRM230YI
DRM43IYI Studies in Performance History, 78L Dramaturgy
A play is chosen from a specific period. A textual analysis of the selected play is followed by a study of the most significant productions of the work in terms of differing text interpretations, use of theatrical conventions, set and costume designs, and acting style. Students are introduced to various aspects of dramaturgical work.
Prerequisite: DRM230YI, permission of University College Drama Program Committee
DRM485YI/ Topics in Drama TBA
486HI

An in-depth examination of selected issues in the Theatre.
Content may vary depending on instructor. See Undergraduate Handbook or the UC Drama Program website for more details.

## DRM486HI A Short History of Violence TBA

A half-credit practical course in staged violence for the theatre, resulting in a Basic Level certification with Fight Directors Canada in: unarmed combat, single sword and quarter staff (students will have the choice to take the certification exam). Prerequisite: DRMIOOYI, 200YI, 201 YI and permission of department. (Offered in alternate years)
DRM490YI/ Independent Studies in Drama TBA 491HI
A scholarly project chosen by the individual student. The student must work out details with a member of faculty who is willing to act as supervisor. A written proposal, signed by both student and instructor, must then be submitted for approval to the Drama Program Committee before registration and normally by May 3I of the preceding academic year. Open to advanced Specialist and Major students in the program.
Faculty
Professors EmeritiS. Arntzen, MA, Ph DE-J. Baek, MA, Ph DR.W. Chu, BLS, MAM. Dolezelova, MA, Ph DF.P. Hoff, MA, Ph D (V)
A.V. Liman, MA
R.J. Lynn, MA, PhD
K. Nakajima, MA, M Phil (N)
L.C.D.C. Priestley, MA, M Phil, Ph D
W.A. Schlepp, B Sc, BA, Ph D
R.Tsukimura, MA, Ph D
A.H.C.Ward, MA
A.K.Warder, BA, Ph D
D.B. Waterhouse, MA, LRAM, FRSC, FRAS (U)
Chair of the Department
A. Schmid, MA, Ph D
Graduate Coordinator
G. Sanders, MA, Ph D
Undergraduate Coordinator
Y. Johnson, MA, Ph D
Professors
V.C. Falkenheim, MA, Ph D
J. Liu,MA, PhD
A. Sakaki, MA, Ph D
V.T. Shen, MA, M Phil, Ph D
Associate Professors
E. Cazdyn, MA, PhD
R. Guisso, BA, D Phil
Y. Johnson, MA, Ph D
T. Keinstead, Ph D
Y. Meng, MA, Ph D
S. Sandahl, MA, Ph D
G. Sanders, BA, Ph D
A. Schmid, MA Ph D
S. Uyenaka, MA, Ph D *
Assistant Professors
J.Ahn, Ph D
K. Kawashima, MA, Ph D
Y.G. Kim, MA M Ed, Ed D*
J. Song, MA, PhD
C.Virag,MA, PhDY.S.Yoo, Ph D*
Senior Lecturer
I. Komuro-Lee, MA
H.X.Y.Wu, Ph D
Lecturers
H.Y. Im,M Ed, MA*
M. Kondo, MA*

* Part-time

The Department of East Asian Studies offers instruction to students who wish to learn about the historic and contemporary cultures of China, Japan and Korea, their interaction with one another, and their encounters with Western cultures. The disciplines pursued in the Department fall mostly within the humanities; additional courses on Asia are given by other departments in the Faculty of Arts and Science (Anthropology, Economics, Geography, History, Philosophy, Political Science, Sociology, and others). The Department of East Asian Studies recommends such courses to its students and will count many towards program requirements.

Courses offered by the Department of East Asian Studies fall into two main categories:
a) Courses that can be taken by students in other disciplines who wish to broaden their horizons. These encompass a variety of topics in the cultures of East Asia. They require no knowledge of East Asian languages.
b) Language and specialized courses for those in East Asian Studies programs. A full range of courses is available in Chinese, Japanese and Korean areas from the first year onwards, along with some instruction in Vietnamese.

Students seeking counseling should first contact the Undergraduate Co-ordinator, and in addition, all members of the Department provide advice and information, and the Undergraduate Co-ordinator or Program Administrator may direct students to them. In conjunction with Woodsworth College, the Department offers courses during June and July at the University of Hong Kong and in conjunction with the International Student Exchange Office, offers opportunities for exchanges with universities in China, Korea, Japan, Taiwan and Singapore. Students should also check the web page of the Asian Institute and the Dr. David Chu Program in Asia-Pacific Studies.

Undergraduate Co-ordinator and Enquiries:
Robarts Research Library, I4th Floor, (416-946-3625)

## East Asian Studies Programs

## East Asian Studies Specialist, Major, Minor (Arts programs)

I. Enrolment in the program is open to students who have completed four full courses or their equivalent. Students who were enrolled in any EAS program prior to 2004-2005 may either switch to this new program, or may follow the criteria in place for the year in which they enrolled.
2. Students with an adequate knowledge of Mandarin Chinese, Japanese, or Korean should consult the Undergraduate Coordinator about the possibility of applying for a "language requirement waiver". This waiver allows students to substitute non-language courses for the language courses required by the program.
3. The department reserves the right to place students in the language course appropriate to their skill level. See Timetable for information on placement tests and interviews.
4. Students may count toward an EAS program those courses with East Asian content offered by other departments provided they appear in the Department web site or they have the permission of the Undergraduate Coordinator of EAS.

## East Asian Studies

5. EASIO2YI is a required course for all levels of the program. 6. EAS209Y is a required course for Specialist and Major programs.
EAS Language Courses
EAS $100 Y \mathrm{Y}, 10 I \mathrm{YI}, 104 \mathrm{YI}, 110 Y \mathrm{I}, 120 \mathrm{Y}, 121 \mathrm{HI}, 200 \mathrm{Y}, 201 \mathrm{YI}$, 2IOYI, 216YI, 220YI, 282YI, 290YI, 300YI, 302YI, 3IOYI, $320 \mathrm{YI}, 382 \mathrm{YI} / \mathrm{HI}, 400 \mathrm{YI}, 4 \mathrm{I} 0 \mathrm{YI}, 4 \mathrm{I} 5 \mathrm{YI}, 460 \mathrm{YI}, 46 \mathrm{YI}, 480 \mathrm{YI} /$ HI, 482YI/HI,

EAS Society-Culture EAS Courses
EAS I02YI, 202YI, 206YI, 207HI,209YI, $21 \mathrm{YYI}, 215 \mathrm{HI}, 217 \mathrm{HI}$, $233 \mathrm{HI}, 235 \mathrm{HI}, 237 \mathrm{Y}$, $238 \mathrm{HI}, 24 \mathrm{IHI}, 246 \mathrm{HI}, 247 \mathrm{HI}, 256 \mathrm{HI}$, $257 \mathrm{HI}, 27 \mathrm{IHI}, 272 \mathrm{HI}, 284 \mathrm{HI}, 293 \mathrm{HI}, 295 \mathrm{YI}, 299 \mathrm{YI}, 303 \mathrm{HI}$, , $305 \mathrm{HI}, 306 \mathrm{YI}, 307 \mathrm{HI}, 309 \mathrm{HI}, 3 \mathrm{I} 8 \mathrm{HI}, 324 \mathrm{HI}, 325 \mathrm{HI}, 327 \mathrm{HI}$, $330 \mathrm{HI}, 334 \mathrm{YI}, 338 \mathrm{HI}, 340 \mathrm{HI}, 344 \mathrm{HI}, 345 \mathrm{HI}, 346 \mathrm{HI}, 347 \mathrm{HI}$, $362 \mathrm{YI}, 368 \mathrm{YI}, 369 \mathrm{HI}, 372 \mathrm{HI}, 373 \mathrm{HI}, 374 \mathrm{HI}, 379 \mathrm{HI}, 389 \mathrm{YI}$, $395 \mathrm{YI}, 398 \mathrm{HI}, 399 \mathrm{YI}, 402 \mathrm{YI}, 407 \mathrm{HI}, 408 \mathrm{HI}, 4 \mathrm{IIHI}, 4 \mathrm{I} 2 \mathrm{HI}$, $4 \mathrm{I} \mathrm{HI}, 43 \mathrm{IHI}, 434 \mathrm{HI}, 435 \mathrm{HI}, 436 \mathrm{YI}, 437 \mathrm{Y}, 438 \mathrm{YI}, 442 \mathrm{HI}$, $444 \mathrm{HI}, 452 \mathrm{HI}, 453 \mathrm{HI}, 456 \mathrm{HI}, 457 \mathrm{HI}, 462 \mathrm{HI}, 468 \mathrm{YI}, 469 \mathrm{YI}$, $473 \mathrm{HI}, 476 \mathrm{YI}, 477 \mathrm{YI}, 488 \mathrm{HI}, 490 \mathrm{HI}, 493 \mathrm{HI}, 495 \mathrm{YI}, 496 \mathrm{HI}$

## Non-EAS Courses on East Asia

Please see EAS Department web site

NOTE on Language Requirements:The Major and Specialist programs require a certain level of language proficiency. If students can demonstrate during their placement interviews for language courses that they have already attained this level, they will be given a language requirement waiver and will be free to complete their programs with EAS society-culture courses. Although the language requirement for the Major and Specialist program is 2nd and 3rd year level, respectively, it does not prevent students from continuing to study language at higher levels. However, only two credits for major and three credits for specialist will be counted toward the fulfillment of the program regardless of the numbers of language courses students may take.

## Specialist program:

EAS specialists are especially urged to explore the avenues for study abroad in East Asia offered by the Faculty of Arts and Science Exchange Program.

## 12 full courses

I EAS I02YI, EAS 209YI (total of 2 credits)
2. Three full EAS language courses in one language. (total of 3 credits of any levels)
3. Seven full EAS society-culture courses, three of which may be non-EAS courses as listed on the departmental website; four courses must be at the 300/400-level. (total of 7 credits)

## Major program:

7 full courses
I. EASI02YI, EAS 209YI (total of 2 credits)
2. Two full EAS language courses in one language. (total of 2 credits of any levels)
3. Three full EAS society-culture courses, one of which may be a non-EAS course as listed on the departmental website; one course must be at the 300/400-level. (total of 3 credits)

## Minor program:

4 full courses (Language courses are not subject to the requirement of the minor program.)
I. EAS I02Y (I credit)
2. Three full EAS society-culture courses, one of which must be 300/400-level; one of which may be a non-EAS course as listed on the departmental website. (total of 3 credits)

## East Asian Studies Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes, (see page 27) all EAS courses are classified as HUMANITIES COURSES except for JMC 30IYI which is classified as both a Humanities and Social Science course.

## EAS Language Courses:

Note I.
The Department reserves the right to place students in the language course appropriate to their level of language skill. For EAS 290 Y I and all language courses at the 100 -level, preference is given to students who need these courses to fulfill the requirements for Specialist and Major programs in the Department.
Note 2.
Students who enroll in any EAS language courses and are subsequently discovered to have prior background and/or have higher language competency than is appropriate for enrolment in that course may be removed at any time at the discretion of the Department.

## Chinese

EASIOOYI Modern Standard Chinese I 52T, 52S
Intended for students with no or minimal background in any Chinese dialect, this course is an introduction to Modern Standard Chinese as a foreign/second language in listening, speaking, reading, writing and translation. Minimum of 550 Chinese characters will be covered.
Exclusion: EASIOIYI
EASIOIYI Modern Chinese I for Students 26T, 52 S with Prior Background
Designed for students who can speak and understand elementary Chinese of any dialect because of family backgrounds but have not studied pinyin, nor read and write enough to take a second-year course. Minimum of 700 single Chinese characters will be covered.
Exclusion: EASI00YI
EAS200YI Modern Standard Chinese II 52T, 52 S
As a continuation of EASIOOY. Those who are suitable for this course but have not studied some content in EASIOOY, especially pinyin, must make an effort to catch up by themselves. Prerequisite: EASIOOYI (minimum grade 67\%)

## EAS20IYI Modern Chinese II for 26T, 52S Students with Prior Background

As a continuation of EASIOIY. Those who are suitable for this course but have not studied some content of EASIOIY, especially pinyin, must make an effort to catch up by themselves. Exclusion: EAS200YI, EAS290YI, LGGBOIH3F, LGGB02H3S, or those with near native fluency in any Chinese dialect.

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## EAS290YI <br> Chinese Language for

For students who speak a Chinese dialect other than Mandarin and have acquired a basic knowledge of written Chinese. Gives basic knowledge of spoken Mandarin and ability to read both literary and modern texts.
EAS300YI Modern Standard Chinese III $52 S$
An intermediate level language course. Original writings chosen from the literature and social history of modern China. Oral discussion, written composition, selective translation, and techniques of reading for comprehension.
Exclusion: EAS290YI. Not open to native speakers of Chinese
Prerequisite: EAS200YI and EAS20IY(minimum 70 \% or
permission of instructor)
Recommended preparation: EAS206YI
EAS302Y Contemporary Chinese Periodicals 52L Further development of Chinese proficiency by studying various genres of articles in newspapers, magazines and journals on contemporary Chinese society and culture.
Prerequisite: EAS2OIYI (minimum 60\%), EAS300YI (minimum
$63 \%$ ) or permission of the instructor
EAS400YI Modern Standard Chinese IV 78S
Further study of texts for a wide range of topics on Chinese society and culture
Prerequisite: EAS300Y (minimum 73\%) or permission of the instructor

## Japanese

EASI20YI Modern Standard Japanese I 52L, 78T
An introduction to the basic elements of Jaapanese language, and the development of listening comprehension, speaking, reading and writing skills. Along with the hiragana and katakana systems of writing, approximately 220 kanji are introduced. Some cultural aspects are introduced as well. Both lectures and tutorials are mandatory. Open only to students with no background in Japanese. Those who have ever studied Japanese (e.g. at high school) and/or those who have ever lived in Japan need to attend an interview to receive permission to take this course
Exclusion: EASI2IHI
EASI2IHI Japanese I for Students 26L, 39T with Prior Background
Appropriate for those who have learned Japanese for more than three months but less than a year in an academic institution. The knowledge of hiragana and katakana as well as 50 basic kanji is required. Must be familiar with ways to state past/non-past events and to describe things in a simple sentence. Some cultural aspects are introduced as well. Both lectures and tutorials are mandatory. Open only to students with some background in Japanese. Those who have ever studied Japanese (e.g. at highschool) and/or have ever lived in Japan need to attend an interview to receive permission to take this course
Exclusion: EASI20YI
EAS220YI Modern Standard Japanese 78L, 52T
An advanced beginners' level language course. An introduction to complicated sentence structures and basic vocabulary for daily life. All four language skills are emphasized and approximately 300 kanji are introduced. Some cultural aspects are introduced as well. Both lectures and tutorials
are mandatory. Open only to those whose Japanese level is equivalent to Level 4 of Japanese Language Proficiency test and/or to those who have successfully completed a full year Japanese language course at other academic institution. Those who have not taken EASI2OY/EASI2IH or do not have appropriate prerequisite need to pass a placement test followed by an interview.
Prerequisite: EASI20YI/EASI2IHI (minimum 75\%).
EAS320YI Modern Standard Japanese III
This is a low intermediate level course. Appropriate for those who have learned Japanese for two years in an academic institution and/or who have passed Level 3 of the Japanese Language Proficiency Test. The knowledge of the strong foundation of the beginners' level grammar and 500 basic kanji are required. Developing all four skills (speaking, listening, reading and writing) is equally focused. All the classes are conducted in a seminar setting. Those who have not taken EAS220Y or do not have an appropriate prerequisite need to
pass a placement test followed by an interview
Prerequisite: EAS220Y (75\% minimum)
Exclusion: EAS348HI, 349HI
EAS460YI Modern Standard Japanese IVa 78S (formerly EAS460HI)
This is a high intermediate level course. Focused on oral/aural communication. Emphasis is on acquisition of vocabulary, spoken styles and commutation strategies that are required to carry formal/informal conversation in contemporary Japanese society. Native or near-native speakers are not permitted to take this course. Those who have not taken EAS320Y and/or do not have appropriate prerequisite must attend an interview to receive permission to take this course.
Prerequisite: EAS320YIY (minimum 70\%)
Exclusion: EAS460HI, EAS349HI

## EAS 46 IYI Modern Standard Japanese IVb 785 (formerly EAS46IHI)

This is a high intermediate level course. Focused on advanced reading and writing skills. Emphasis is on acquisition of advanced grammar, vocabulary/kanji and expressions especially in authentic written Japanese texts. Native or near-native speakers are not permitted to take this course. Those who have not taken EAS320Y and/or do not have appropriate prerequisite must attend an interview to receive permission to take this course.
Prerequisite: EAS320Y (minimum: 70\%)
Exclusion: EAS $349 \mathrm{HI}, 46 \mathrm{IHI}$

## Korean

EASIIOYI Modern Standard Korean I I04S
An introductory Korean language course open to students with no prior knowledge of Korean. Comprehension, speaking, reading and writing are covered but the main emphasis is given to spoken Korean.

EAS2IOYI Modern Standard Korean II 52S
Students study grammatical structure in depth through reading various forms of writing. Attention given to idiomatic expressions with emphasis on the use of language in actual context.
Prerequisite: EASIIOYI

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## EAS2I6YI <br> Modern Standard Korean for

 Students with Prior Background For students with limited prior background in spoken and/or written Korean. Reading, speaking, writing and grammar are equally emphasized. Access is limited and based on the results of a placement interview.Exclusion: EAS2IOYI, EASIIOYI
Prerequisite: Placement test
Recommended preparation: Limited prior background in spoken/or written Korean
EAS3IOYI Modern Standard Korean III I04S
Expansion of vocabulary, practice in reading comprehension and active skills of writing and conversation are emphasized. Students participate in discussions and compose short essays. Selected readings include different styles of work on Korean culture, history, society and literature.
Prerequisite: EAS2IOYI

## EAS4IOYI Modern Standard Korean IV

Emphasis on communicative skills, grammatical structure, efficient reading ability and composition. Readings from original writings on various aspects of Korean culture.
Prerequisite: EAS3IOYI
EAS4I5YI Advanced Readings in Korean 52L
This course provides various readings of original texts and newspapers for students with knowledge and language ability at least equivalent to those who have successfully completed EAS2IOYI. Besides extensive reading, the course introduces 800 Chinese characters often used in mixed-scripts.
Prerequisite: EAS2IOYI

## Vietnamese

EASIO4YI Elementary Vietnamese 78S
An introductory course for students, with equal emphasis on reading, writing, speaking and grammar.

## Sanskrit

EAS282YIY Elementary Sanskrit I04S (formerly EASI80YI)
An introduction to the language of traditional Indian civilization. Good knowledge of grammatical terminology is necessary. Exclusion: EASI80YI
EAS379HI The History, Structure and 52L, 26P Politics of the Hindi Language
This course traces the origins and development of Hindi/Urdu via a multitude of Northern Indian dialects to the present day Modern Standard Hindi. The linguistic development in the late 19th and the 20th centuries is intimately linked to the emerging Indian, especially Hindu, nationalism. The politically complicated relationship between Hindi and Urdu will be highlighted.
Knowledge of the devanagari script is required.
Recommended Preparation: I year of Hindi, Urdu, Sanskrit or other Indo-Aryan language
EAS382HI/ Intermediate Sanskrit 39L/78L

## YI

Continuation of the study of Sanskrit grammar with readings
from Classical Sanskrit epic and narrative literature.
Prerequisite: EAS282YI, EASI500Y
Exclusion: Intermediate Sanskrit Course taken in 2004-05

EAS480YI/HI Advanced Sanskrit I
Reading in classical Sanskrit poetry and prose. Prerequisite: EAS382Y

## EAS482HI Advanced Sanskrit II

 26S (formerly EAS482Y)Technical Sanskrit: readings from alamkarasastra, dharmasastra, darsana and other non-literary texts.
Prerequisite: EAS382Y
Exclusion: EAS482Y

## EAS Society-Culture Courses

## 100-Series Courses

EASI02YI Introduction to East 52L, 26T
Highlights of Chinese, Japanese and Korean civilization to about 1600 .A.D. The focus is on political, social and intellectual history, as well as on the interactions among the three cultures. Required for students taking specialist, major and minor programs in East Asian Studies.

## HUMI99HI/Y I First Year Seminar

52S
Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course; see page 47.

## 200-Series Courses

EAS202YI Modern East Asian History 26L, 26T (formerly EAS204YI)
Examines how various histories of East Asia can be written by examining specific themes in the history of China, Japan, and Korea from roughly 1600 to the outbreak of the Cold War. Exclusion: EAS204YI; HIS I07YI; Not open to students who took EASI02YI in 2001-2002

## EAS206YI Classical Chinese I

 52SAn introductory reading course in Classical Chinese with emphasis on Grammatical analysis and translation into English. Open only to students enrolled in an EAS Major or Specialist subject POSt..
Exclusion: EAS290YI
Prerequisite: Must have already taken at least 3 EAS half courses Co-requisite: EAS200YI/20IYI
Recommended Preparation:Two or more years of Modern Standard Chinese
EAS209YI Approaches to East Asia 52L Intended for EAS specialists and majors, this course introduces various approaches and methodologies for the advanced study of East Asian society and culture. Required for EAS specialists and majors.

## EAS2IIYO Chinese Art 52L

A survey of the visual arts of China from earliest times to the end of the traditional era: the aesthetics and historical/cultural context of painting, calligraphy, sculpture, architecture, and the other arts. Field trip is included. (Normally offered only in Summer)
EAS2I5HI History of Chinese Thought: Tang
through Ming Periods $\quad \mathbf{2 6 L}, \mathbf{2 6 P}$
This course examines the vibrant "middle period" of Chinese
history - a period of profound transformation in which

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some of the most distinctively traditional forms of thought, religious belief, artistic and literary expression, and scholarly practices emerged and developed in China. Topics studied include: the establishment of empire as a norm in China (and its implications); the rise of the literati and literati culture; the examination system; Neo-Confucian philosophy; visual culture; the sciences of the body; and popular and print culture.

## EAS2I7YI Major Aspects of Contemporary Korea

A broad perspective on contemporary Korea. Emphasis is on the last 30 years of political dynamics on the peninsula which brought about the "Korean-style democracy" and "Korean-style economy" (chaebol), plus Juche ideology in North Korea.
EAS233HI History of China's Performing Arts 26L
An historical overview of Chinese theatre, a reading of selected texts, viewing of videotaped performances and class discussions of the characteristics of this art form.
Enrolment priority: Given to students enrolled in an EAS
program and Drama students. Normally offered only in Summer.

## EAS235H I Perceptions of China in Japanese Literature (formerly EAS235YI)

Lectures and discussions on Japanese literary negotiations with China, the Chinese and Chineseness, ranging from celebration of the same cultural practice, to nativist resistance to China the hegemonic, to aestheticization of China the exotic/erotic. Required readings are available in English translation, which include:Tale of Genji, Tale of Middle-Councillor Hamamatsu (medieval romance); Haku Rakuten (No play); Battles of Coxinga (Kabuki play);Three-Cornered World (by Soseki);Wild Goose (by Ogai)
Exclusion: EAS235YI
EAS237YI Japanese Cinema: Film Form and the Problems of Japanese Modernity
How film aesthetics relate to the most profound sociohistorical problems of Japanese modernity. How various film makers employ cinematic form to engage the social problems of their moment.

## EAS238HI Japanese Poetry \& Fiction: 26L Earliest Times to the 14th Century

The art of narrative and poetry from Japan's creation myths through medieval monk-poets. An introduction to Japan's classical literature. (Readings in English)
EAS245HI Pre-Modern Japanese History 26P
A survey of the history of pre-modern Japan from earliest recorded histories to the disintegration of the feudal system in the 19th century. Uses a wide range of translated primary Japanese texts to illuminate the emergence of cultural forms and their conjunctions with social, economic, religious and political trends.
Prerequisite: EASIO2YI
EAS24IHI History of Chinese Philosophy
An historical and systematic introduction to the basic ideas of the main Chinese philosophical schools and their development, including Confucianism, Daoism, Buddhism, and Neo-Confucianism; the challenge of Western thought and the emergence of modern Chinese philosophy.
Exclusion: RLG274HI, PHL237HI

EAS246HI Pre-Modern Japanese 26L, I3T Cultural History
A survey of the history of pre-modern Japan from earliest recorded histories to the disintegration of the feudal system in the 19th century. Uses a wide range of translated primary Japanese texts to illuminate the emergence of cultural forms and their conjunctions with social, economic, religious and political trends
Recommended preparation: EASIO2YI
EAS247HI Japanese Culture \& Modernity 26L, I3T This course provides an historical narrative of the development of the capitalist mode of production in Japan, from the mid$19^{\text {th }}$ century to the present day. Readings will include texts from various disciplines: economics, philosophy, social and labor history, literature.
Recommended preparation: EAS204YI, 246HI
EAS256HI Chinese Literature
26L
(Pre-Qin to Tang)
(formerly EAS336HI)
A survey course of major works in premodern Chinese literature, including poetry, essays, and short narratives from the pre-Qin through Tang eras ( $11^{\text {th }} \mathrm{BCE}-10^{\text {th }} \mathrm{C} C E$ ). Readings are available in translation and in the original. All lectures and coursework are in English. Enrolment priority: Students enrolled in an EAS subject POST.
Exclusion: EAS336YI, EAS336HI
EAS257HI Chinese Literature (Song to Qing) 26L (formerly EAS337HI)
A survey course of major works in premodern Chinese literature, including poetry, essays, short narratives and drama from the Song through Qing dynasties (10thC - 19thC). Readings are available in translation and in the original. All lectures and coursework are in English. Enrolment priority: Students enrolled in an EAS subject POST.
Exclusion: EAS337YI, EAS337HI
EAS27IHI 20th Century Korean History 26L (formerly EAS27IYI)
A survey of the history of Korea from the Tonghak uprising and Sino-Japanese war of 1894-I895, through the colonial period, division, and civil war, to the democratization movement. Exclusion: EAS27IYI
EAS272HI Post-War Korean Society 26L \& Culture
This course focuses on critical analysis of South Korean film and literature as a way of understanding political and cultural contexts of post-Korean War South Korean Society and Culture. This class is devoted to developing critical perspectives on historical context and cultural representation of Korea. In particular, it introduces students to ongoing construction of identities about marginalized Koreans through major political incidents, such as Kwangju uprising, and LA incident.
Exclusion: EAS35IHI
Prerequisite: EAS27IH; EAS209YI for EAS students
EAS284HI Modern Chinese Literature 26L
This course offers a critical examination of twentieth-century Chinese literature. It aims to explore the various ways of being modern as well as different meanings of writing Chinese literature. We will focus upon the important developments of literary writing over time, from the inception of New Literature in the 1910s, the development of realism and modernism of the 1930s, to the emergency of post-revolution and postmodernist

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writings of the 1990s. Great emphasis is also placed on generating a dialogue on interpretations of key works. In doing so, we will be exercising the skills of reading literary works in terms of aesthetic choices and strategies of cultural politics.
This is a Humanities course.

## EAS293HI Fundamentals of Japanese

 GrammarThis course is designed for those who wish to develop a thorough knowledge of Japanese Grammar in order to advance all aspects of language skills to a higher level. All grammatical items introduced in elementary levels are examined from both linguistic and cultural perspectives in depth well beyond regular language courses.
Prerequisite: EASI20YI/EASI2IHI
Recommended Preparation: LIN204H

## EAS295Y0 Selected Topics in East Asian Studies

This course allows students to pursue the specialized study of specific topics tailored to the research and study opportunities available in Hong Kong and the expertise and interests of the instructor. Available only in the Woodsworth College Hong Kong Summer Program.
EAS299YI Research Opportunity Program
Credit course for supervised participation in faculty research project. See page 47 for details.

## 300-Series Courses

JMC30IYI State \& Society in 20th Century China
This course explores China's efforts to construct a modern and effective political order in the face of powerful demographic and revolutionary challenges. The clash between competing ideologies, political and social movements and institutional alternatives in the context of rapid social and economic change are analyzed.
Prerequisite: EASI02YI/HIS280YI/328YI/JMC20IYI/POL2I5YI This course is classified as both a Humanities and Social Science course

EAS 303HI Technology of Social Engineering: 26L Women in 20th Century East Asia
This course aims to teach how East Asian modern societies were engineered through projecting women into particular being/positions. "New women" discourse in early $20^{\text {th }}$ century and industrial motherhood/wifehood to late $20^{\text {th }}$ century in Japan, China, and Korea wil be the central theme. Prerequisite: EAS209YI

## EAS305HI Art and Literary Theory of Pre-Modern China in Translation (formerly EAS305YI)

A survey course of works of Chinese painting and calligraphy theory and literary criticism from the pre-Qin period to the Qing dynasty. Readings are available in English. Exclusion: EAS305Y I

## EAS306YI Classical Chinese II (formerly EAS335YI)

The course helps students gain more in-depth control of grammatical structures, read classical materials with greater ease and discuss academic and scholarly topics more articulately.

## Prerequisite: EAS206YI (minimum 70\%)

EAS307HI Chinese Political Philosophy 26S
The course analyses both historically and systematically the development of Chinese political philosophy from ancient times to the present day.
Prerequisite: PHL237HI

## EAS309HI Modern Chinese Prose

A survey of representative works of prose written by twentieth-century Chinese writers. This course focuses on reading texts, as well as analyzing their textual structure, aesthetic values, and historical context. Readings are available in translation and in the original.

EAS3IIHI A History of Japanese Monsters 26L This course will examine the historical development of Japanese monsters, from roughly the 7-8th centuries to modern times. We will focus on how the changing understanding of monsters in society has embodied certain fissures in Japanese culture, especially with regard to gender and class.
Prerequisite: EASIO2YI
EAS3I8HI Rethinking Modernism:The
Perspectives of Mainland China Taiwan and Hong Kong
Modernism is one of the important cultural heritages of the last century that call for critical reflections in light of novel perspectives and new methodologies. Postmodern critical thinking and postcolonial scholarships have in particular made significant impact on ways of rethinking modernism across national histories. This course takes various forms of modernism(s) across China, Taiwan and Hong Kong as the object of study, and the postcolonial and postmodernist approaches to modernism as the refashioned methodological possibilities. Readings of main modernistic writings, studying cinema and arts originated from the above different localities. Discussions on such questions as how can theoretical generalizations about modernism be adequately grounded in interconnected histories, languages, as well as experiences of colonialism and modernity? How does the temporality of modernism get translated across different locations of writing? How do we understand the lines of solidarity and tension among artists and writers of different camps or localities? The goal of this course is not to find a better definition for modernism but to release modernisms to fresh ways of thinking and imagination.

EAS324HI Mysticism in East Asia Revisited 26L In this course we will explore the topic of mysticism in East Asia by paying close attention to and questioning the relation between the metaphors, experiences, texts, behaviors, practices, and objects that we often label "mystical." Sources from Daoism, Buddhism, local cults, medicine, new religions, and popular media in East Asia will be consulted.
Recommended Preparation: EASIO2YI
EAS325HI The Body in East Asian Religions 26L In this course we will examine the history of the body and its relation to particular forms of religiosity in East Asia. What influence did the religious traditions of this region have on the way in which the body was constructed and disciplined? What role did the body play in the development of these traditions? Both pre-modern and modern forms of religiosity will be considered.
Recommended Preparation: EASIO2YI

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## EAS327HI Japanese Fiction and the Nation

 The focus is on modern Japanese literature, with special attention given to literature's relation to the nation. Students track how this literature transforms throughout Japanese modernity and how its meaning and effects function to simultaneously tie together and pull apart national identity. Prerequisite: At least one course in literature or East Asian Studies
## EAS330HI Narrative Strategies in Modern Japanese Fiction

Discussion of narratives by Natsume Soseki, Mori Ogai, Tanizaki Jun'ichiro, and Ibuse Masuji, with attention to issues in narratology and contemporary narrative studies such as: the voice and perspective; the gender and power relationships of the narrator-narratee-narrated; the act of narrating, writing, listening and reading; and metafictional paradox. Reading are assigned from secondary and theoretical materials. All readings are available in English.

## EAS334YI The Chinese Novel

The development of Chinese fiction from earliest times with emphasis on the twentieth century. Readings in English translation; lectures in English. Normally offered during summer.

## EAS338HI Classical Daoism <br> 52L, 26P

This course will examine some major issues of classical Daoist thought, such as Dao and cosmos, body and self, human nature, language and knowledge, political visions etc., based on both textual and ideological analysis of some Daoist works such as the Laozi, the Zhuangzi, and some Huanglao Daoist texts, to be updated with recently unearthed manuscripts in silk and bamboo slips.
Prerequisite: PHL237HI, EAS24IHI

## EAS340YI The Chinese: Society \& Culture 52S

 in Transition (formerly EAS340HI)The course explores issues of identity, self, and community among other topics in a broad exploration of cultural transformation in China.
Exclusion: EAS340HI
Recommended preparation: EASI02YI
EAS342HI Art and Religious Experience

## in Japan

Experience, ritual, discipline and training in Japanese art and religion. Art as religion, and religion as art. Shinto, mountain cults, shamanism, divination, esoteric Buddhism, Zen, the folk arts movement, music, internationalism in modern Japanese culture. Illustrated with slides and other material.

## EAS344HI Topics in Chinese Society and

 CultureThis course addresses selected themes and issues in China's complex process of modernization and reform, the format and requirements to vary according to theme, and class and instructor preferences and interests.
Recommended preparation: One course on modern China or East Asia or equivalent

## EAS345YI The Rise of Greater China: 52S

Issues \& Topics (formerly EAS345HI)
This course looks at China in regional perspective, including issues of Taiwan, Hong Kong and People's Republic of China economic integration. The role of overseas Chinese communities globally and in Southeast Asia also receives attention. The form and focus of the course varies according
to class and instructor interests. Normally, offered only in the Hong Kong Summer Program.
Exclusion: EAS345HI
Recommended preparation: One course on modern China or
East Asia or equivalent
EAS346HI Self and Imagination in 52L Pre-Modern China
In this seminar we will explore the diverse and intriguing ways in which subjectivity was conceived in pre-modern China (up to the twelfth century) by way of the various images thinkers invoked to make sense of it. Works studied include:Warring States philosophical treatises; Buddhist and religious Daoist texts on meditation and self-cultivation; literary theory and poetry; philosophical prose essays by literati; and painting.
EAS347HI Everyday Life in Modern Japan 26L The history of modern Japan around the problem of "everyday life" and its relationship to capitalism. Using a range of literary, philosophical, economic and ethnographic materials that deal with the development of capitalism in Japan, as well as Japanese colonialism, imperialism and fascism, explores ways to specify and critique what is called "everyday life".
Recommended preparation: EAS247HI/28IHI/YI

## EAS36IYI Zen Buddhism <br> 52L

This course will serve as an introduction to the Zen Buddhist traditions of China, Korea, and Japan. A heavy emphasis will be placed on the radical views of history, language, ritual, self, and enlightenment espoused by these traditions. The course will also examine issues related to Zen monasticism, the development of koans, and the definition of orthodoxy in both premodern and modern Zen. Students will be asked to explore these and other topics by paying close attention to the historical, doctrinal, and institutional contexts from which they arose. Readings will include both primary material in translation and secondary scholarship.
This is a Humanities course.
EAS362YI Classical Japanese $52 S$
Introduction to classical Japanese, followed by readings of various short works by classical authors.
Prerequisite: EAS220Y।
EAS368YI The Philosophy of the Buddha $52 S$
(formerly EAS260YI)
The philosophy of the Buddha as preserved in the Pali Canon and its development in the Early Schools in India.
Exclusion: EAS260YI
Recommended preparation: RLG206Y।

## EAS369YI Transformation of Buddhist 52L

 Practice in the Contemporary WorldThe course explores various forms of traditional Buddhist practice in relation to Buddhist philosophy, and observes the transformation of these practices in the contemporary world. Principal studies include Theravada tradition, Tibetan Buddhism, Chinese Pure Land and Chan traditions. To provide a foundational understanding of Buddhist philosophy and its relation to meditative practice. This course will also examine the influence of Buddhism on films and material culture. Recommended preparation: RLG206YI
EAS372HI Early Korean History
This course is a survey of issues in early Korean history with particular attention to theuses of and approaches to ancient history in contemporary Korea.
Prerequisite: EAS27IHI/272HI

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EAS373HI Choson History 26L
This course examines various approaches - economic, social, gender, political, international, and cultural - to the history of Choson Korea.
Prerequisite: EAS27IHI/272HI
EAS374HI Modern Japan and Colonialism 52L This course interrogates the history of Modern Japan from the perspective of Japan's colonial exploits in East Asia. The course will also address the political-economy and culture of the military Occupation of Japan by the Supreme Command of the Allied Powers. Texts from economics, philosophy and literature will be used.
Prerequisite: EAS247HI
EAS379HI The History, Structure and 52L, 26P Politics of the Hindi Language
This course traces the origins and development of Hindi/Urdu via a multitude of Northern Indian dialects to the present day Modern Standard Hindi. The linguistic development in the late 19th and the 20th centuries is intimately linked to the emerging Indian, especially Hindu, nationalism. The politically complicated relationship between Hindi and Urdu will be highlighted.
Knowledge of the devanagari script is required.
Recommended Preparation: I year of Hindi, Urdu, Sanskrit or other Indo-Aryan language
EAS389YI History of Korean Religion 52L, 26P
This course offers a broad overview of Korean religious tradition.
EAS395Y0 The Development of TBA Greater China
To achieve an in-depth understanding of China, this course discusses China's national and international issues in the "living textbook." It emphasizes current events and hot topics in the media. The focus may vary depending on current events and the instructor's interests. Normally offered only in the Woodsworth College Hong Kong Summer Programme.
EAS398H0/ Independent Experiential Study Project 399Y0
An instructor-supervised group project in an off-campus setting. See page 47 for details.

## 400-Series Courses

EAS407HI Textual Analysis of Classical Chinese Philosophy
Readings of texts from ancient and medieval Chinese philosophy. Beginning by linguistic (especially semantic) analysis of key words, structure and meaning of sentences, paragraphs and text as a whole. Philosophical analysis proceeds from linguistic analysis.
Prerequisite: PHL237HI, EAS306YI

## EAS408HI Modern Taiwanese Literature 26S

A general survey of modern Taiwanese literature from 1949 until today. It attempts to examine issues such as historical/ cultural context, oral/written language, self-identification, gender, human rights, etc., central to understanding the Taiwanese experience. Readings are available in translation and in the original.

## EAS4IIHI Art and Archaelogy of Early China I

Introducing to recent archaeological discoveries in China, this course explores material cultures and artworks of early China covering periods of prehistory, the Bronze Age, and Qin and Han Dynasty. This course (Part I) focuses on cultural history and general archaeological study in a chronological order at a beginning level.
EAS4I2HI Art and Archaelogy of 52L, 26P Early China II
Introducing to recent archaeological discoveries in China, this course explores material cultures and artworks of early China covering periods of prehistory, the Bronze Age, and Qin and Han Dynasty. This course (Part II) focuses on special topics of art and archaeology designed for students with interests in Chinese archaeology.
Prerequisite: EAS4IIHI
EAS4I8HI Topics in Chinese Art Theories 26S
This course will focus on theories of Chinese arts by critically analyzing various theoretical texts on music, painting, calligraphy, literature, in the form of special treatises and documents recorded in the Classics.

## Prerequisite: PHL237HI, EAS306YI

## EAS43IHI Advanced Topics in

Japanese Cinema
The focus ranges from the examination of cross-cultural theoretical problems (such as Orientalism) to a director based focus, from the examination of genre (such as documentary or the category of genre itself) to the way film intersects with other cultural forms and technologies (such as Video and New Media)
Prerequisite: EAS237YI
EAS444HI The City, Body and Text in

## Modern Japanese Literature

Examines how the city and body exert formative forces on the text, and how the practice of writing and reading texts might inform the ways we, corporeal beings, experience the city as manifested in the nineteenth century Japanese literature. Required readings are available in English.
Prerequisite: Successful completion with the minimum grade of $75 \%$ in EAS235, EAS237, EAS327, EAS330, EAS43I, EAS456 or one of the humanities program at $U$ of $T$ (e.g., English, art history, philosophy, etc.)
EAS452HI The Construction of 52L, 26P Gender in Traditional China
This course examines the philosophical, societal and cultural influences which defined woman/female/femininity and man/ male/masculinity in China before the seventeenth century. Some attention is devoted to sexual diversity.
Recommended Preparation: EASI02YIY

## EAS453HI Gender, Sexuality \& Modernity 52L, 26P in China, Korea and Japan

This course focuses on the changing sexual mores and the challenges to the traditional gender systems of East Asia brought by the processes of modernization and globalization/ westernization.

EAS456HI Japan as seen by ?: Reference, 26S Apparatus, Operation
Discusses how images of Japan, charged with varied degrees of desire for empirical knowledge, have contributed to contemporary novels and plays by David Mitchell, Ruth L. Ozeki,

## East Asian Studies

David Mamet, Joy Kogawa, Kazuo Ishiguro, Marguerite Duras, and David Hwang. All the readings, including Japanese literary and theoretical, are available in English.

EAS457HI $\quad$| Special Topics in Modern |
| :--- |
| Japanese History |

| Analyzing contemporary monographs on modern Japanese history |
| :--- | :--- |
| This course will offer a critical survey of existing methodologies |
| and approaches to writing about Modern Japan. |
| Prerequisite: EAS $247 \mathrm{HI}, 347 \mathrm{HI}$ |


| EAS462HI | Ethnographic Literature on <br> Korea: Class, Gender \& Family |
| :--- | :--- |

This is a seminar course for upper level undergraduate students who are interested in reading ethnographic literature. This course introduces contemporary ethnographic literature written in English on South Korea. Despite the textual focus on anthropological writing, it covers interdisciplinary inquiry into cultural and historical concepts that have shaped people's lives in South Korea. This class is run as a dynamic seminar course with class discussions structured around students' presentations, and with writing and rewriting research paper.
Prerequisite: EAS209YI for EAS students

## EAS468YI Mahayana Buddhist Philosophy (formerly EAS360YI)

Close study of selected Indian and Chinese Mahayana texts in translation, with emphasis on Madhyamaka and Hua-yen.
Exclusion: EAS360YI
Recommended preparation: RLG206YI

## EAS469YI Chinese Sectarian Buddhism 52L

This course examines one or more schools of Chinese Buddhism depending upon the expertise of the instructor.
EAS473HI Modern Korean History Seminar $26 S$
An examination of recent research results in the modern Korean history field, focusing especially on the late 19th and 20th centuries Prerequisite: EAS27IYI

## EAS476YI Democracy and History in Korea $52 S$

This course examines approaches to the history of the south Korean democracy movement and the role of history within the democracy movement itself.
Recommended preparation: EAS27IHI

## EAS477YI Missionaries in Korea <br> 52L

This course examines the works of missionaries in Korea and the socio-political situation of the Choson Dynasty.

EAS482HI | Advanced Sanskrit II |
| :--- |
| (formerly EAS482YI) |

Technical Sanskrit: readings from alamkarasastra, dharmasastra,
darsana and other non-literary texts.
Prerequisite: EAS382YI
Exclusion: EAS482YI

EAS488Y I/ Hinduism and Politics 52L/26L EAS488HI
The political expression of Hinduism begins with religious reform movements in the 19th century, and develops into a Hindu nationalism. Although independent India is a secular state, Hindu "fundamentalism" remains a powerful political force. This course analyzes modern Hindu political ideology.

## EAS490HI Introduction to Japanese <br> Linguistics: Syntax and Semantics

This course introduces Japanese grammatical items in a scientifically and theoretically oriented manner. The goals of the
course are: to gain knowledge of the basic characteristics of sentence structure and meaning in Japanese; to become familiar with selected theoretical analyses; and to develop a repertoire of linguistic vocabulary.
Prerequisite: EAS349HI
Recommended Preparation: LINI00YI, LIN204HI
EAS493HI Theory and Practice of 39S
Japanese Language Instruction
This course provides an overview of theories and issues in second language teaching for those who are or will be involved in Japanese language teaching. The class discussion includes the theory and history of teaching methods and their theoretical implications. Students will also practice actual teaching in real classroom settings.
Prerequisite: EAS $460 \mathrm{HI} / 46 \mathrm{IHI}$

## EAS495YI Topics in East Asian Studies 52 S

A guided research course on a common topic of the student's choice. Students are required to produce a 20-30 page paper based on the selected topic.
EAS496HI Topics in East Asian Studies
26S
An in-depth study of Chinese, Japanese or Korean culture, history and/or literature. Content in any given year depends on the instructor.
Recommended preparation:Varies from year to year
EAS497HI Beyond Orientalism
26S
This course will confront the 'Orientalist' view of the world by looking at one Asian nation regularly exempted from that paradigm-Japan. By examining, among other topics, Japan's emperor system, its construction of a national history, and its own imperialism, this course hopes to point toward other ways of thinking about East and West.
Recommended Preparation: EAS202YI/204YI/247YI/374HI

## Independent Studies



Prerequisite: Five EAS courses

Ecology: see Life Sciences: Biology

## Faculty

University Professor Emeritus
S. Hollander, OC, BScEcon, Ph D, LLD, FRSC

Professors Emeriti
R.A. Berry, BA, PhD
R.M. Bird, MA, Ph D, FRSC
J.D. Bossons, AM, Ph D
A.A.Breton, OC, BA, Ph D, FRSC
N.K. Choudhry, MS, Ph D
J.S. Cohen, MA, Ph D
J.H. Crispo, B Com, Ph D
J.H. Dales, MA, Ph D, FRSC
S.M. Eddie, B Sc, Ph D
J.E. Floyd, MA, PhD
M.A. Fuss, MA, Ph D
M.J. Gordon, MA, Ph D
W. Haque, MA, M Sc, Ph D
M.J. Hare, B Com
G.K. Helleiner, OC, MA, Ph D, FRSC
J.A. Hynes, $A B$
Y. Kotowitz, BA, Ph D
A.M. Kruger, BA, Ph D
J.H.A. Munro, MA, Ph D
D.M. Nowlan, MA, Ph D
K.J. Rea, MA, Ph D
S.A. Rea, AB, Ph D
A.E. Safarian, OC, BA, Ph D, FRSC
J.A. Sawyer, MA, Ph D
L.B. Smith, AM, Ph D
D.A.A. Stager, AM, Ph D
M.H.Watkins, B Com
A.M. Watson, B Com, MA
L. Waverman, MA, Ph D
T.A. Wilson, AM, Ph D, FRSC
J.W.L.Winder, MA, Ph D

## Professor and Chair of the Department

 A.J. Hosios, M Eng, MA, Ph DProfessor and Associate Chair, Graduate

## Studies

A.J. Yatchew, MA, PhD

Professor and Associate Chair, Undergraduate Studies
F.R. Casas, MSc, Ph D

University Professor
M. Trebilcock, FRSC, LLM

## Professors

V.A. Aivazian, BS, Ph D (University of Toronto Mississauga)
G. Anderson, M Sc, Ph D (University of Toronto

Mississauga)
M. Baker, MA, Ph D
H.D. Benjamin, MA, Ph D
L. Brandt, BS, Ph D
J.L. Carr, MA, Ph D
M.G.S. Denny, B Sc, Ph D
D.N. Dewees, B Sc, LL B, Ph D
M. Faig, MA, PhD (University of Toronto Mississauga)
D.K. Foot, AM, Ph D (N)
C. Gourieroux, $\mathrm{Ph} D$
M. Gunderson, MA, Ph D
I. Horstmann, BA, Ph D +
S. Howson, MA, Ph D
G.V. Jump, BA, Ph D
H. Li, BS, PhD
G.F. Mathewson, B Com, Ph D
T. McCurdy, BA, Ph D +
A. Melino, BA, Ph D (University of Toronto Mississauga)
J.M. Mintz, MA, Ph D
D.E. Moggridge, MA, Ph D (T)
M.J. Osborne, BA, Ph D
J.E. Pesando, MA, Ph D
F.J. Reid, M Sc, Ph D (University of Toronto Mississauga)
A. Rotstein, BA, Ph D
S. Shi, MA, PhD
M. Smart, MA, PhD
A. Siow, BA, Ph D
W.C. Strange, MA, Ph D +
D. Trefler, MA, Ph D
X. Zhu, MS, Ph D (University of Toronto Mississauga)

## Associate Professors

V.Aguirregabiria, MSc, PhD
M.Alexopoulos, MA, Ph D
E. Damiano, MA, Ph D
G. Duranton, MA, M Sc, Ph D
A. Erosa, MA, Ph D (University of Toronto Mississauga)
L. Fuster, MA, Ph D
G. Hamilton, MA, Ph D
J. Maheu, MA, Ph D (University of Toronto Mississauga)
R. McMillan, BA, Ph D (University of Toronto Mississauga)
C. Pitchik, M Sc, Ph D (University of Toronto Mississauga)
D. Restuccia, MA, Ph D
J. Roberts, MA, Ph D
M.B. Stabile, MA, Ph D (University of Toronto Mississauga)
M.A. Turner, AM, Ph D

## Assistant Professors

S. Board, M Phil, Ph D (University of Toronto Mississauga)
G. Bobonis, BA, PhD
E. Choo, M Comm, MA, M Phil, Ph D
M. Duarte, MA, Ph D (University of Toronto Mississauga)
G. Goh, MA, Ph D
G. Kambourov, PhD (University of Toronto Mississauga)
E. Malinova, MA, Ph D
S. Mechoulan, MA, Ph D
J. Mondria, MA, Ph D
P. Oreopoulos, MA, Ph D (University of Toronto

Mississauga)
A. Park, Ph D (University of Toronto Mississauga)
C. Serrano, MS, MA , Ph D
H. Shierholtz, MS, MA, PhD (University of Toronto Mississauga)
J.Van Biesebroeck, MA, Ph D (University of Toronto

Mississauga)

## Economics

Adjunct Professor<br>J. Crean, MA, Ph D<br>D.P. Dungan, MA, Ph D<br>P. Masson, BA, Ph D +<br>\section*{Lecturers}<br>G. Indart, MA, Ph D<br>J. Murdock, M Phil, Ph D<br>\section*{Sessional Lecturers}<br>M. Anjomshoa, MA, M Phil<br>K. Furlong, MA, Ph D<br>G. Gagnon, MA, Ph D<br>R. Ghaeli, MA, PhD<br>B. Kralj, MA, PhD<br>A. Mazaheri, MA, Ph D<br>R. Satchu, MBA<br>P. Tomlinson, BA, Ph D<br>W.G.Wolfson, B Com, MA<br>Z.F. Yang, MA<br>P.M.V.Yu, MS, Ph D<br>+ cross appointed

Economics is a social science that encompasses a broad range of human behaviour and has a strong influence on the structure, well-being and development of a society.

Much of human activity is directed towards the satisfaction of material wants. In many areas of the world, the greater part of human effort must be directed towards meeting the most elemental demands for food, clothing, and shelter. Even in technologically advanced societies, where these basic requirements can be met with comparative ease, the desire for more goods and services never appears to be fully satisfied. In consequence, every society - regardless of whether it is capitalist, socialist, or communist in political orientation - is both competitive and cooperative. It is competitive because its members contend with one another to satisfy their individual wants from a limited supply of productive resources. It is cooperative because the greatest supply of goods is available when the activity of producing them is coordinated and organized. Economics deals with any issue arising out of the conflict between the demand for goods and services, and a limited supply of resources to satisfy those demands.

Undergraduate training in economics is intended to familiarize students with the discipline of economic thinking, and to equip them for intelligent appraisal of contemporary economic problems. It is also intended to make students aware of the nature of economic science, and of the directions in which economic theory is moving.

Economic theory now makes considerable use of mathematics in some of its enquiries. A student who chooses to specialize in economics should take at least one basic course in mathematics. More such courses may be taken, and several economics courses draw on mathematical analysis.

Because of advances in economic theory, an undergraduate degree is not sufficient to become a professional economist. For this or other reasons, graduate work may be necessary. Students who wish to do graduate work should seek advice from the Department concerning their choice of courses.

## Undergraduate Administrator: R. Innes

Commerce Assistant: J. Fan
Enquiries:
100 St. George Street, 4th floor (416-978-4603)

## Economics Programs

Enrolment in Economics programs is based on grades in ECO IOOY, completion of MAT $133 \mathrm{Y} / 135 \mathrm{Y} / 137 \mathrm{Y}$ and a minimum CGPA (please read entry requirements carefully). Consult the Registration Handbook \& Timetable and Departmental Handbook for details.

## Economic History \& Economics (Arts program)

Enrolment in this program is limited to students with $67 \%$ in ECO $100 Y$ or $80 \%$ in ECO 105 Y , MAT $133 \mathrm{Y} / \mathrm{I} 35 \mathrm{Y} / \mathrm{I} 37 \mathrm{Y}$ and a CGPA of 2.0.

## Specialist program:

(13 full courses or their equivalent, including at least one 400series ECO full-course equivalent)
First Year:
ECOI00Y/I05Y; MATI33Y/I35Y/I37Y
Higher Years:
I. ECO200Y/206Y, ECO202Y/208Y, ECO220Y/227Y/STA ( $250 \mathrm{H}, 255 \mathrm{H}) /(257 \mathrm{H}, 26 \mathrm{IH})$
2. Four full Economic History courses from: $301 \mathrm{Y}, 302 \mathrm{H}$, $303 \mathrm{Y}, 307 \mathrm{H}, 308 \mathrm{H}, 309 \mathrm{H}, 32 \mathrm{IY}, 342 \mathrm{Y}, 353 \mathrm{Y}, 354 \mathrm{H}, 355 \mathrm{H}$, $423 \mathrm{H}, 429 \mathrm{Y}, 435 \mathrm{H}$. Up to one HIS course may be taken to complete this requirement.
3. Four additional full ECO courses (not from above list)

## Economic History (Arts program)

Enrolment in the Economic History Programs is limited to students with 67\% in ECOIOOY or 80\% in ECOIO5Y, MAT I33Y/I35Y/I37Y and a CGPA of 2.0.

Major program
(6 full courses or their equivalent)
First Year:
ECO I00Y/I05Y; MAT I33Y/I35Y/I37Y
Higher Years:
I. ECO 200Y/206Y
2. Three full Economic History courses from: $301 \mathrm{Y}, 302 \mathrm{H}$, $303 \mathrm{Y}, 307 \mathrm{H}, 308 \mathrm{H}, 309 \mathrm{H}, 32 \mathrm{IY}, 342 \mathrm{Y}, 353 \mathrm{Y}, 354 \mathrm{H}, 355 \mathrm{H}$, $423 \mathrm{H}, 429 \mathrm{Y}, 435 \mathrm{H}$

## Minor program:

(4 full courses or their equivalent)
I. ECO I00Y/I05Y; MATI33Y/I35Y/I37Y
2. ECO $200 \mathrm{Y} / 206 \mathrm{Y}$
3. One full Economic History course from from: $301 \mathrm{Y}, 302 \mathrm{H}$, $303 \mathrm{Y}, 307 \mathrm{H}, 308 \mathrm{H}, 309 \mathrm{H}, 32 \mathrm{IY}, 342 \mathrm{Y}, 353 \mathrm{Y}, 354 \mathrm{H}, 355 \mathrm{H}$, $423 \mathrm{H}, 429 \mathrm{Y}, 435 \mathrm{H}$
NOTE: Students enrolled in the Minor Program in Economic History cannot be enrolled in the Minor Program in Economics or in the Minor Program in Environmental Economics.

## Economics (Arts program)

## Specialist program:

(I3 full courses or their equivalent, including at least one 400-
series course)
Enrolment in the Specialist Program is limited to students with $70 \%$ in ECO 100 Y , and $63 \%$ in MAT 133 Y or $60 \%$ in MAT 135 Y or $55 \%$ in MAT I37Y, and a CGPA of 2.3.

First Year:
ECO I00Y; MAT I33Y/I35Y/I37Y
Higher Years:
I. ECO $206 \mathrm{Y}, 208 \mathrm{Y}, \mathrm{ECO} 227 \mathrm{Y} / \mathrm{STA}(257 \mathrm{H}, 26 \mathrm{H})$, ECO 325H, 326H, 327Y, 429Y
2. One full course in Economic History from the following: $30 \mathrm{IY}, 302 \mathrm{H}, 303 \mathrm{Y}, 307 \mathrm{H}, 308 \mathrm{H}, 309 \mathrm{H}, 32 \mathrm{IY}, 342 \mathrm{Y}, 353 \mathrm{Y}$, $354 \mathrm{H}, 355 \mathrm{H}, 423 \mathrm{H}, 435 \mathrm{H}$
3. Four full additional 300+ series ECO courses, no more than one of which may be a course in Economic history.
4. Additional preparation is strongly recommended: MAT $223 \mathrm{H} / 240 \mathrm{H}$, MAT $235 \mathrm{Y} / 237 \mathrm{Y} / \mathrm{ECO} 2 \mathrm{IOH}$

## Major program:

(7 full courses or their equivalent)
Enrolment in this program is limited to students with $67 \%$ in ECO $100 Y$ or $80 \%$ in ECO 105 Y , MAT I33Y/I35Y/I37Y and a CGPA of 2.0.

## First Year:

ECO 100Y/I05Y; MAT $133 \mathrm{Y} / 135 \mathrm{Y} / 137 \mathrm{Y}$
Higher Years:
I. ECO 200Y/206Y, 202Y/208Y/209Y, ECO 220Y/227Y/STA ( $250 \mathrm{H}, 255 \mathrm{H}) /(257 \mathrm{H}, 26 \mathrm{IH})$
2. Two full additional 300+ series ECO courses, no more than one of which may be a course in Economic History

## Minor program:

(4 full courses or their equivalent)
Enrolment in this program is limited to students with $67 \%$ in ECO $100 Y$ or $80 \%$ in ECO $105 Y$, MAT I $33 \mathrm{Y} / \mathrm{I} 35 \mathrm{Y} / \mathrm{I} 37 \mathrm{Y}$ and a CGPA of 2.0.
I. ECO I00Y/I05Y; MAT I33Y/I35Y/I37Y
2. ECO 200Y/206Y
3. One full 300+ series ECO course, not in Economic History. NOTE: Students enrolled in the Minor Program in Economics cannot be enrolled in the Minor Program in Economic History or in the Minor Program in Environmental Economics.

## Economics (Commerce \& Finance) (B.Com.) See Commerce (page 40)

## Environmental Economics - See Centre for Environment

## Economics (Quantitative Methods) (Science program)

Enrolment in this program is limited to students with $70 \%$ in ECO 100 Y , and $55 \%$ in MAT I37Y, and a CGPA of 2.3.

## Specialist program:

( 12 full courses or their equivalent, including at least one 400series course)
First Year:
ECO I00Y; MAT I37Y/I57Y
Higher Years:
I. APM $236 \mathrm{H} / \mathrm{CSC}(\mathrm{I} 65 \mathrm{H}, 236 \mathrm{H}) / 240 \mathrm{H} / 263 \mathrm{H}$
. ECO 206Y, 208Y, 325H, 326H, 327 Y
MAT $223 \mathrm{H} / 240 \mathrm{H}, 235 \mathrm{Y} / 237 \mathrm{Y}$
4. ECO $227 \mathrm{Y} / \mathrm{STA}(257 \mathrm{H}, 261 \mathrm{H})$
5. One full course from Group $A$ and two full courses from $A$ or B (for a total of three):

## Group A:

ECO $416 \mathrm{H}, 418 \mathrm{H} ;$ APM $236 \mathrm{H}, 462 \mathrm{H}$; CSC 148H, ( 165 H ,
$236 \mathrm{H}) / 240 \mathrm{H}, 207 \mathrm{H}, 260 \mathrm{H}, 263 \mathrm{H}, 336 \mathrm{H} / 350 \mathrm{H}, 340 \mathrm{H}, 354 \mathrm{H}$, $363 \mathrm{H} / 365 \mathrm{H}, 373 \mathrm{H} / 375 \mathrm{H}$, MAT $3 \mathrm{I} 5 \mathrm{H}, 337 \mathrm{H}$; STA $322 \mathrm{H}, 352 \mathrm{Y}$, $4 \mathrm{I} 4 \mathrm{H}, 422 \mathrm{H}, 447 \mathrm{H}, 452 \mathrm{H}, 457 \mathrm{H}$

## Group B:

Any 300+ series ECO course

## Note:

At least four 300+ series courses, including at least one 400series course must be completed for this program.

## Financial Economics (Science program)

## Specialist program:

(I3 full courses or their equivalent, including at least one 400series full course or its equivalent)

Application to this program is limited to students with $70 \%$ in ECOIOOYI/IOOY5, $63 \%$ in MATI33YI/I33Y5 or $60 \%$ in MATI34Y5/I35YI/I35Y5 or 55\% in MATI37YI/I38Y5, 63\% in ECO206YI/206Y5, 63\% in ECO208YI/208Y5, 63\% in ECO227YI/227Y5/STA(257HI,26IHI)/STA(257H5,26IH5), completion of at least 8.0 credits and a CGPA of 3.0. This is a limited enrolment program. Students enrolled in this program cannot simultaneously be enrolled in any other Economics specialist, joint specialist, major or minor program in Economics or in the Commerce and Finance program. This applies to both the St. George and University of Toronto Mississauga campuses.
NOTE - Some required courses may be offered only on the
St. George or on the University of Toronto Mississauga campus in any given year. Students registered in this program at either campus may have to attend lectures on the other campus in such cases.

First Year:
ECOIOOYI/I00Y5, MATI32Y5/I33YI/I33Y5/I34Y5/I35YI/ I35Y5/I37YI/I38Y5
Higher Years:
I. ECO206YI/206Y5
2. ECO208YI/208Y5
3. ECO227YI/227Y5/STA $(257 \mathrm{HI}, 26 \mathrm{IHI}) /(257 \mathrm{H} 5,258 \mathrm{H} 5 /$ 26IH5)
4. $\mathrm{ECO} 325 \mathrm{HI} / 325 \mathrm{H} 5, \mathrm{ECO} 326 \mathrm{HI} / 326 \mathrm{H} 5$
5. ECO $327 \mathrm{Y} \mathrm{I}^{*} / 327 \mathrm{Y} 5^{*}$
6. $\mathrm{ECO} 358 \mathrm{HI} / 358 \mathrm{H} 5, \mathrm{ECO} 359 \mathrm{HI} / 359 \mathrm{H} 5$
7. 5 additional $300+\mathrm{ECO}$ credits or their equivalent, of which at least I. 5 must be chosen from ECO $329 \mathrm{HI} / 349 \mathrm{H} 5$, ECO460H5, ECO46IHI/46IH5, ECO462HI, ECO463H5

* MAT222H5/223HI/248Y5 is strongly recommended as preparation for ECO327YI/327Y5. Students taking one of these MAT courses can have that course count in lieu of one half or a full $300+$ ECO credit required for this program


## Economics and Computer Science (Science program) - See Computer Science

## Economics and Geography (Arts program)

Consult Professor A.M. Davis, Undergraduate Coordinator, Department of Geography.
Enrolment in this program is limited to students with $67 \%$ in ECO I00Y or $80 \%$ in ECO I05Y, MAT I33Y/I35Y/I37Y and a CGPA of 2.0.

## Specialist program:

(I5 full courses or their equivalent, including at least one 400series course)
First Year:
ECO I00Y/I05Y; MAT I33Y/I35Y/I37Y; GGR I07Y/IIOY/I24Y
Higher Years:
I. ECO 200Y/206Y, 202Y/208Y, 333Y; GGR 220Y
2. ECO $220 \mathrm{Y} / 227 \mathrm{Y} / \mathrm{STA}(250 \mathrm{H}, 255 \mathrm{H}) /(257 \mathrm{H}, 26 \mathrm{IH})$
3. 2.5 courses from: GGR $233 \mathrm{Y}, 249 \mathrm{H}, 252 \mathrm{H}, 254 \mathrm{H}, 256 \mathrm{H}$, $323 \mathrm{H}, 324 \mathrm{H}, 33 \mathrm{IH}, 332 \mathrm{H}, 333 \mathrm{H}, 334 \mathrm{H}, 344 \mathrm{H}, 357 \mathrm{H}, 436 \mathrm{H}$, JGI 346 H , other choices from 5 . and 6 . below
4. Two full courses from: ECO $303 \mathrm{Y}, 309 \mathrm{H}, 3 \mathrm{I} 3 \mathrm{H}, 3 \mathrm{I} 4 \mathrm{H}, 32 \mathrm{IY}$, $336 \mathrm{Y}, 340 \mathrm{H}, 342 \mathrm{Y}, 423 \mathrm{H}, 425 \mathrm{H}, 435 \mathrm{H}$
5. One of GGR $27 \mathrm{IH}, 273 \mathrm{H}, 37 \mathrm{IH}, 373 \mathrm{H}, 462 \mathrm{H}, 473 \mathrm{H}$
6. GGR 49 I Y/two of GGR $4 \mathrm{I} 5 \mathrm{H}, 43 \mathrm{IH}, 450 \mathrm{H}, 459 \mathrm{H}, 499 \mathrm{H}$, JFG 470H
7. One additional full ECO/GGR course if ECO $220 \mathrm{Y} / 227 \mathrm{Y}$ is chosen, or two full courses if STA $(250 \mathrm{H}, 255 \mathrm{H}) /(257 \mathrm{H}$, 26IH)) are chosen

## Economics \& Mathematics (Science program)

Consult Professor N.A. Derzko, Department of Mathematics, or Undergraduate Secretary, Department of Economics.

Enrolment in this program is limited to students with 70\% in ECO $100 \mathrm{Y}, 55 \%$ in MAT 137 Y and a CGPA of 2.3.

## Specialist program:

(I3 full courses or their equivalent, including at least one 400series course)

First Year:
ECO I00Y; MAT I37Y/I57Y
Second Year:
ECO 206Y, 208Y, ECO 227Y/STA (257H, 26IH); MAT
$(223 \mathrm{H} / 240 \mathrm{H}, 237 \mathrm{Y}, 246 \mathrm{H}) / 257 \mathrm{Y}$
Second or Third Year:
APM 236H; MAT 244H/267H
Third Year:
MAT $315 \mathrm{H} / 337 \mathrm{H} /(327 \mathrm{H}, 357 \mathrm{H})$ (MAT 357 H may be taken in Fourth Year)
Third or Fourth Year:
I. APM 462 H ; ECO $325 \mathrm{H} / 326 \mathrm{H}$
2. Two full $300+$ series ECO courses
3. One full course from: MAT $309 \mathrm{H} / 3 \mathrm{I} 5 \mathrm{H} / 334 \mathrm{H} / 337 \mathrm{H} / 344 \mathrm{H} /$ $363 \mathrm{H} / 464 \mathrm{H} /$ any 400 -series MAT course/another $300+$ level STA course, subject to the approval of the advisors.

## Economics \& Philosophy (Arts program)

Consult the Undergraduate Coordinator, Department of Philosophy.
Enrolment in this program is limited to students with $67 \%$ in ECO $100 Y$ or $80 \%$ in ECO 105 Y , MAT $133 \mathrm{Y} / 135 \mathrm{Y} / 137 \mathrm{Y}$ and a CGPA of 2.0.

## Specialist program:

(15 full courses or their equivalent, including at least one 400series course)

First Year:
ECO I00Y/I05Y; MAT I33Y/I35Y/I37Y
Higher Years:
I. ECO 200Y/206Y, 202Y/208Y, ECO 220Y/227Y/ STA $(250 \mathrm{H}, 255 \mathrm{H}) /(257 \mathrm{H}, 26 \mathrm{IH})$, ECO 429 Y
2. Two additional full ECO courses
3. Seven full courses in Philosophy; it is strongly recommended that five be chosen according to the profile specified in the Philosophy Specialist Program, with at least two at the 300+ level.

## Note:

At least four 300+ series courses must be completed for this program.

## Economics \& Political Science (Arts program)

Consult Director of Undergraduate Studies, Department of Political Science.

Enrolment in this program is limited to students with $67 \%$ in ECO $100 Y$ or $80 \%$ in ECO 105 Y , MAT $133 \mathrm{Y} / \mathrm{I} 35 \mathrm{Y} / \mathrm{I} 37 \mathrm{Y}$ and a CGPA of 2.0. Students must also meet the requirements of the Political Science Department (see the Political Science listings).

## Specialist program:

(I5 full courses or their equivalent, including at least one 400series course)

NOTE:The 15 courses must include 8 in ECO, two of which must be 300+ series; and 7 in POL or JPE, including one 300+ series course and one 400-series course. At least one POL course must be in the area of Canadian politics.
First Year:
ECO I00Y/I05Y; MAT I33Y/I35Y/I37Y; POL I03Y/I05Y/I08Y/ 214 Y
Higher Years:
I. POL 200 Y
2. ECO $200 \mathrm{Y} / 206 \mathrm{Y}, 202 \mathrm{Y} / 208 \mathrm{Y}$, ECO $220 \mathrm{Y} / 227 \mathrm{Y} / \mathrm{STA}(250 \mathrm{H}$, $255 \mathrm{H}) /(257 \mathrm{H}, 26 \mathrm{IH})$, ECO 429 Y
3. $\mathrm{ECO} 30 \mathrm{IY} / 302 \mathrm{H} / 303 \mathrm{Y} / 307 \mathrm{H} / 308 \mathrm{H} / 309 \mathrm{H} / 32 \mathrm{IY} / 342 \mathrm{Y} / 353 \mathrm{Y} /$ $354 \mathrm{H} / 355 \mathrm{H} / 423 \mathrm{H} / 435 \mathrm{H}$
4. One additional full ECO course
5. One full course from any of the following three fields in Political Science (see Departmental Handbook for breakdown of courses into fields):
Comparative Politics (Developing)
Comparative Politics (Industrial)
International Relations
6. One full course equivalent from: POL 40I, 408, 409, 4I8, $435,439,447,458,463,472,474,475,476,477,488,489$, JPF 455, JPJ 494
7. Three additional courses in POL or JPE

## Economics \& Sociology (Arts program)

Consult Undergraduate Secretary, Department of Economics.
Enrolment in this program is limited to students with $67 \%$ in ECO 100 Y or $80 \%$ in ECO 105 Y , MAT $133 \mathrm{Y} / 135 \mathrm{Y} / 137 \mathrm{Y}$ and a CGPA of 2.0. Students must have $65 \%$ in SOC IOIY, and $70 \%$ in each of $S O C 200 \mathrm{H}, 202 \mathrm{H}, 203 \mathrm{Y}$, and 204 H . Students must also have completed 8 full courses and be enrolled in the Sociology Major program.

## Specialist program:

( 15 full courses or their equivalent, including at least one 400series course)
First Year:
ECO $100 \mathrm{Y} / 105 \mathrm{Y}$; MAT $133 \mathrm{Y} / 135 \mathrm{Y} / 137 \mathrm{Y}$; SOC IOIY
Higher Years:
I. ECO $200 \mathrm{Y} / 206 \mathrm{Y}, 202 \mathrm{Y} / 208 \mathrm{Y}$, ECO $220 \mathrm{Y} / 227 \mathrm{Y} / \mathrm{SOC} 300 \mathrm{H} /$ STA $(250 \mathrm{H}, 255 \mathrm{H}) /(257 \mathrm{H}, 26 \mathrm{IH})$
2. SOC $200 \mathrm{H}, 202 \mathrm{H}, 203 \mathrm{Y}, 204 \mathrm{H}, 376 \mathrm{H}, 377 \mathrm{H}, 387 \mathrm{H}, 40 \mathrm{IY}$
3. Two of the following pairs of courses: ECO 32 IY \& SOC 220Y; ECO 3IOY \& SOC 3I7Y; ECO 333Y \& SOC 205Y; ECO 339 Y \& SOC $207 \mathrm{Y} / 370 \mathrm{Y}$; ECO 340 H plus a second ECO half-course \& SOC 301 Y ; ECO 425 H plus a second ECO half-course \& SOC 312 Y

## Note:

At least four 300+ series courses must be completed for this program

## Economics \& Statistics (Science program)

Consult Undergraduate Secretary, Department of Economics.
Enrolment in this program is limited to students with $70 \%$ in ECO $100 \mathrm{Y}, 55 \%$ in MAT 137 Y and a CGPA of 2.3.

## Specialist program:

( 14 full courses or their equivalent, including at least one 400series course)

## First Year:

CSC $148 \mathrm{H} / 150 \mathrm{H} / 260 \mathrm{H}$; ECO $100 \mathrm{Y} ;$ MAT I37Y/I57Y
Second Year:
ECO 206Y, 208Y; MAT 223H/240H, 237Y; ECO 227Y/STA (257H, 26IH)
Third Year:
I. ECO $325 \mathrm{H}, 326 \mathrm{H}, 327 \mathrm{Y}$; STA 347 H
2. One full $300+$ series ECO course
3. STA 352 Y

Fourth Year:
I. $\mathrm{ECO} 416 \mathrm{H} / 418 \mathrm{H}$
2. A $300+$ series ECO half-course
3. STA $437 \mathrm{H}, 457 \mathrm{H}$; one STA half-course from STA $4 \mathrm{I} 4 \mathrm{H} / 422 \mathrm{H} / 442 \mathrm{H} / 447 \mathrm{H}$
4. One additional half-course from ACT 335H/MAT $244 \mathrm{H} / 267 \mathrm{H} / \mathrm{a} 300+$ series ECO or STA half-course

## Economics Courses

See page 33 for Key to Course Descriptions
For Distribution Requirement purposes (see page 27), all ECO courses are classified as SOCIAL SCIENCE courses.

## SSCI99HI/YI First Year Seminar

$52 S$
Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course; see page 47.

## Note

Enrolment in most Economics courses above the 100 -level and, therefore, in all Economics Programs, is based on grades in ECO IOOY or ECO I05Y and, in some cases, MAT I33Y or MAT I35Y or MAT I37Y.Additional information is contained in the Registration Handbook and Timetable and the Departmental Handbook. Not all courses are offered each year.

## ECOIOOYI Introduction to Economics 52L, 26T

An introduction to economic analysis and its applications: price determination; the role of competition; international trade and finance; the theory of production and employment; the role of money and the banking system; monetary and fiscal policy. NOTE graphical and quantitative analysis are used extensively. Exclusion: ECOIO5Y
Prerequisite: MCB4U, MGA4U/MDM4U

## ECOIO5YI Principles of Economics for 52L, 26T Non-Specialists

An introduction to the principles and methods of economics in association with policy issues. Lectures cover 24 topics, including economic growth, the importance of productivity, international trade, competitive markets, macroeconomic issues and more specific topics such as rent controls, OPEC, the international debt crisis, trade restrictions, the national debt and sustainable development. Students who intend to complete a minor, major, or specialist program in Economics are advised to take ECOIOOY.

## Exclusion: ECOIOOY

ECO200YI Microeconomic Theory 52L, 26T
Theory of markets and prices. Determination of prices through the interaction of the basic economic units, the household as consumer and as supplier of inputs and the business firm as producer and as employer of inputs. The pricing system as the mechanism by which social decisions and allocation of goods are made in a market economy.
Exclusion: ECO204Y, 206Y
Prerequisite: ECOIOOY(67\%)/ECOIO5Y(80\%); MATI33Y/I35Y/ I37Y

## ECO202YI Macroeconomic Theory 52L, 26T and Policy

Theory of output, employment and the price level; techniques for achieving economic stability; central banking and Canadian financial institutions and markets; foreign exchange markets and the exchange rate. This course is not intended for those in the
B.Com program; please see ECO209Y.

Exclusion: ECO208Y,209Y
Prerequisite: ECOIOOY(67\%)/ECOI05Y(80\%)
Co-requisite: MAT $133 \mathrm{Y} / 135 \mathrm{Y} / 137 \mathrm{Y}$

## Economics

## ECO204YI Microeconomic Theory and 52L, 26T

 Applications (for Commerce)Determination of prices and outputs through the interaction of decisions made by households (as consumers in product markets and suppliers in factor markets), business firms (as producers of commodities and employers of factors) and governments. Perfectly and imperfectly competitive markets are examined. Applied examples of how microeconomics can be used to inform government and business decisions are included.
This course is restricted to students in the Specialist program
in Commerce and Finance (B.Com).
Exclusion: ECO 200Y, 206 Y
Prerequisite: ECOIOOYI(67\%), MAT I33Y/I35Y/I37Y

## ECO206YI Microeconomic Theory 52L, 26T

This course deals more rigorously and more mathematically with the topics included in ECO200Y and is intended primarily for students in certain Specialist programs.
Exclusion: ECO200Y, 204Y
Prerequisite: ECOIOOY(70\%); MATI33Y(63\%)/I35Y(60\%)/ I37Y(55\%)
ECO208YI Macroeconomic Theory 52L, 26T
This course deals more rigorously and more mathematically with the topics included in ECO 202Y and is intended primarily for students in certain Specialist programs.
Exclusion: ECO202Y, 209Y
Prerequisite: ECOIOOY(70\%); MATI33Y(63\%)/I35Y(60\%)/ I37Y(55\%)

ECO209Y I Macroeconomic Theory 52L,26T and Policy (for Commerce)
Macroeconomic issues relevant for commerce students.
Analytical tools are used to examine policy issues: Canadian government budgets, Bank of Canada monetary policy, exchange rate policy, foreign trade policy and government regulation of financial intermediaries. This course is restricted to students in the B. Com (Commerce and Finance) program.
Exclusion: ECO202Y, 208Y
Prerequisite: ECOIOOY(67\%); MATI33Y/I35Y/I37Y
ECO2IOHI Mathematical Methods for 26L, I3T Economic Theory
An introduction to mathematical methods commonly used in economic theory. Topics include unconstrained multivariate optimization, multivariate optimization subject to equality or inequality constraints and differential equations.
Exclusion: MAT235Y, MAT237Y
Prerequisite: ECOIOOY (67\%)/ECOI05Y (80\%); MATI33Y (63\%)/I35Y (60\%)/I37Y (55\%)
Co-requisite: ECO200Y/204Y/206Y
ECO220YI Quantitative Methods in 52L, 26T Economics
Numerical and graphical data description techniques; data collection and sampling; probability; sampling distributions; statistical inference; simple and multiple regression analysis. Study methods, the basis for these methods, when each is or is not appropriate, and how to correctly interpret and understand

## results.

Exclusion: ECO227Y, GGR270Y, 270H, PSY20IH, 202H, SOC300Y, STAI07H, 220H, 22 IH, $247 \mathrm{H}, 248 \mathrm{H}, 250 \mathrm{H}, 255 \mathrm{H}$, 257H, 26IH
Prerequisite: ECOIOOY(67\%)/ECOI05Y (80\%); MATI33Y/I35Y/ I37Y

## ECO227YI Quantitative Methods in 52L, 26T

 EconomicsA rigorous introduction to probability and mathematical statistics intended for economics specialists. Probability and estimation theory, sampling distributions, hypotheses testing, multiple regression analysis. Students should be familiar with the tools used to characterize scenarios where randomness and uncertainty occur in economics and finance.
Exclusion: ECO220Y, GGR270Y, 270H, PSY20IH, 202H, SOC 300 Y, STAI07H, $220 \mathrm{H}, 22 \mathrm{IH}, 247 \mathrm{H}, 248 \mathrm{H}, 250 \mathrm{H}, 255 \mathrm{H}$, 257H, 26IH
Prerequisite: ECOIOOY (70\%); MATI33Y (63\%)/I35Y (60\%)/I37Y (55\%)
Recommended Co-requisite: MAT $223 \mathrm{H} / 240 \mathrm{H}$, MAT 235Y/237Y/ECO2IOH
ECO230YI $\begin{array}{ll}\text { International Economic } \\ \text { Institutions and Policy }\end{array} \quad 52 \mathrm{~L}, \mathbf{2 6 T}$
The key concepts of international trade and finance are reviewed with an eye to understanding contemporary issues and recommending policy initiatives. Attention is given to empirical assessment of alternative trade theories and to broader international relations issues.

## Exclusion: ECO328Y

Prerequisite: ECOIOOY(67\%)/ECOI05Y(80\%/CGPA 2.50)/ enrolment in the International Relations Specialist or Major Program, or the IR/Peace and Conflict Studies joint Specialist Program.
ECO239YI Labour Markets and Policies 52L, 26T
Application of economic analysis to current issues in labour policy: immigration, retirement, education, unemployment, earnings differentials, employment and pay equity, labour unions, minimum wage, income policies.
Exclusion: ECO339Y
Prerequisite: ECOIOOY(67\%)/ECOI05Y(80\%)

## WDW244HI Labour Relations

See Woodsworth College
ECO250YI/ Special Topics in Economics 52S/26S
25IHI/

## 252HI

Courses may be offered in one or more subjects each year. Students must meet the prerequisites announced by the Department (see the Undergraduate Secretary for details). Prerequisite:TBA

ECO299YI Research Opportunity Program
Credit course for supervised participation in faculty research project. See page 47 for details.

ECO 30IYI \begin{tabular}{l}

| European Economic |
| :---: |
| History, I250-1750 |
| (formerly ECO20IYI) | <br>

The development of the west European economy from the
\end{tabular}

apogee of the Commercial Revolution era and the ensuing
economic crises of the later - early I4th centuries to the
eve of the modern Industrial Revolution, focusing on Italy,
Spain, Portugal, France, Germany, the Low Countries and
England. Major topics: feudalism, serfdom and other barriers
to economic growth; demographic, monetary and other
macroeconomic forces; the development of market economies;
structural changes in and interactions among the agrarian,
commercial, financial, and industrial sectors; overseas expansion
and colonization; the role of Church, state, warfare, and social/ political institutions; Mercantilism.
Exclusion: ECO20IY
Prerequisite: ECO200Y/204Y/206Y

## ECO302HI Comparative Economic Institutions in History <br> (formerly ECO302YI)

Contrasting ways in which the factors of production - land, labour and capital - are organized in human society. Tribal, feudal, mercantilist and market economies are considered. A conceptual framework related to both market and non-market economies is examined, based on the work of Karl Polanyi. Exclusion: ECO302Y, ECO354H (200I-02 and 2002-03) Prerequisite: ECO200Y/204Y/206Y

## ECO303YI The Economic History of 52L, 26T

 Modern Europe to 1914The economic development of modern Europe, focusing on urban industrialization in the Netherlands, Great Britain, France, Germany, and Russia, up to World War I. Major topics: technological, institutional, and social factors in economic growth; demographic and monetary forces; structural changes in and interactions among the agrarian, commercial, financial, and industrial sectors; international trade and capital flows; the role of the state; the role of economic theory and ideology; theories of post-I 850 imperialism.
Exclusion: ECO203Y
Prerequisite: ECO200Y/204Y/206Y

## ECO307HI Issues in Canadian and US Economic History to 1914

This course addresses the evolution of North American markets, with emphasis on the pre-Civil War period. Labor markets are examined, including those for indentured servants and apprentices, as well as the economics of slavery. The timing and impact of technological change and the evolution of manufacturing production are also covered. The U.S. economy and the role of Canadian economic activity within the broader North American context will be examined (formerly offered as Special Topics course ECO354H).
Prerequisite: ECO200Y/204Y/206Y
Exclusion: ECO22IY, 32IY, 354H (North American Economic History to 1850), 423H

ECO308HI The Economics of Life:A 26L Historical Perspective
This course will focus on demographic economic history within a North American context. Topics covered include changes over time in marriage markets, fertility, mortality and stature. We study, for example, the impact of property rights within marriage, illegitimacy, the decline of fertility in the nineteenth century and the puzzling inter-temporal divergence between height and wealth during the early nineteenth century (formerly offered as Special Topics course ECO355H)
Prerequisite ECO200Y/204Y/206Y; ECO220Y/227Y or equivalent
Exclusion: ECO355H (The Economics of Life:A Historical Perspective)

## ECO309HI Economic Growth and Development in Southeast Asia

This course evaluates economic development strategies in Southeast Asia and their implications for growth, industrialization, and income inequality. It first reviews trade and development theory that can explain the economic
development of Southeast Asia. Then, it explains the initial conditions provided by resource endowments, geographical location, trade-international economic relations, and domestic economic development policies, and how these conditions have affected the process of development. The course focuses on the five most populous and resource abundant countries of the region: Indonesia, Malaysia, Philippines, Thailand and Vietnam (formerly offered as Special Topics course ECO355H)
Prerequisite: ECO200Y/204Y/206Y, ECO202Y/208Y/209Y
Exclusion: ECO355H (Economic Growth and Development in Southeast Asia)

ECO3IOYI | Industrial Organization and 52L, 26T |
| :--- |
| Public Policy |

Study of how firms compete and structure of markets.
Emphasize oligopoly markets and use game theory. Study differentiated goods, price discrimination, barriers to entry, vertical relationships, advertising, strategic behaviour, and empirical industrial organization including estimation of demand and costs. Applications to competition policy emphasizing evaluation of horizontal mergers.
Exclusion: ECO380H
Prerequisite: ECO200Y/204Y/206Y, ECO220Y/227Y/STA(250H, $255 \mathrm{H}) /(257 \mathrm{H}, 26 \mathrm{IH})$

## ECO3I3HI Environmental Economics and 26L Policies

This course demonstrates the way that a rigorous application of microeconomic techniques can inform our responses to various environmental problems. Topics may include: air and water pollution and renewable resource management.
Prerequisite: ECO200Y/204Y/206Y, MATI33Y/I35Y/I37Y

## ECO3I4HI Energy and Resource Economics <br> 26L

An investigation of the way that a rigorous application of microeconomic techniques can I) improve our understanding of how resources like oil, minerals, fish, and forests are extracted in equilibrium, and 2) lead to improved management policies. Prerequisite: ECO200Y/204Y/206Y, MATI33Y/I35Y/I37Y

## ECO320HI Economic Analysis of Law 26L

The practical application of microeconomic theory to common legal problems: torts, contracts, property and crime, and the limitations of economic analysis. No previous familiarity with the law is assumed. (This is an economic analysis of legal issues, not a course in law.)
Prerequisite: ECO200Y/204Y/206Y, MATI33Y/I35Y/I37Y

| ECO32IYI | Canadian Economic History 52L <br> since I500 <br> (formerly ECO22IYI) |
| :--- | :--- |

Canadian economic growth and development as viewed through the staples thesis of Harold Innis. Reference to United States economic history throughout the course.
Exclusion: ECO 22IYI, 323Y5
Prerequisite: ECO200Y/204Y/206Y

## ECO324YI Economic Development

Economic development theory and policy related to the economic transformation of the developing countries, including industrial and agricultural sector strategies, international trade policy, public sector activities and the importance of productivity growth and poverty reduction programs.
Prerequisite: ECO200Y/204Y/206Y, 202Y/208Y/209Y, ECO220Y/ $227 \mathrm{Y} / \mathrm{STA}(250 \mathrm{H}, 255 \mathrm{H}) /(257 \mathrm{H}, 26 \mathrm{IH})$

Economics

## ECO325HI Advanced Economic <br> 26L, I3T Theory - Macro

This course develops the microeconomic foundations of macroeconomic theory and expand students' analytic skills by constructing and solving macroeconomic models. Topics may include: dynamic choice, neoclassical growth theory, uncertainty and rational expectations, business cycles, as well as fiscal and monetary policy.
Prerequisite: ECO208Y/202Y(70\%)/209Y(70\%), ECO220Y(70\%)/ 227Y/ STA $(250 \mathrm{H}[70 \%], 255 \mathrm{H}[70 \%]) /(257 \mathrm{H}, 26 \mathrm{H})$
Recommended preparation: MAT $223 \mathrm{H} / 240 \mathrm{H}$, MAT235Y/237Y/ ECO21OH
ECO326HI Advanced Economic 26L, I3T

## Theory - Micro

Game theory and applications. Topics include: strategic and extensive games, with applications to economics.
Exclusion: ECO372H5, 372Y5
Prerequisite: ECO200Y(70\%)/204Y(70\%)/206Y, ECO220Y(70\%)/ 227Y/STA $(250 \mathrm{H}[70 \%], 255 \mathrm{H}[70 \%]) /(257 \mathrm{H}, 26 \mathrm{IH})$; MATI33Y( $63 \%$ )/I35Y( $60 \%$ )/I37Y(55\%)
Recommended preparation: MAT223H/240H, MAT235Y/237Y/ ECO2IOH
ECO327YI Applied Econometrics 52L, 26T
The development and application of statistical techniques in estimating economic models and testing economic theory. The implications and treatment of special statistical problems that arise in estimating economic relationships.
Exclusion: STA302H
Prerequisite: $\mathrm{ECO} 200 \mathrm{Y}(70 \%) / 204 \mathrm{Y}(70 \%) / 206 \mathrm{Y}, \mathrm{ECO} 220 \mathrm{Y}(70 \%) /$ 227Y/STA( $250 \mathrm{H}[70 \%], 255 \mathrm{H}[70 \%]) /(257 \mathrm{H}, 26 \mathrm{H})$
Recommended preparation: MAT223H/240H, MAT235Y/237Y/ ECO21OH
ECO328YI International Economics 52L, 26T
The operation of the international economy and the economic
interdependence among nations, in terms of international monetary relationships, commodity trade and factor movements.
Prerequisite: ECO200Y(70\%)/204Y(70\%)/206Y, 202Y/208Y/209Y Exclusion: ECO230Y,ECO364H5, 365H5

## ECO329HI Topics in Monetary Economics

Theories and techniques in monetary economics, including the equilibrium asset-pricing theory and modeling money as a medium of exchange, the Lucas supply curve, the choice of monetary policy rules versus discretion, and the liquidity effect of open market operations. Emphasis on the interactions between macroeconomic phenomena and individual decisions. Exclusion: ECO349H5, ECO352H (2002-03)
Prerequisite: ECO200Y/204Y/206Y, ECO202Y/208Y/209Y, ECO220Y/ 227Y/STA $(250 \mathrm{H}, 255 \mathrm{H}) /(257 \mathrm{H}, 26 \mathrm{IH})$, MAT I $33 \mathrm{Y} /$ I35Y/I37Y
ECO332HI Economics of the Family
26L
This course uses microeconomics to study the behaviour of the family, including marriage, divorce, intra-family allocations, investment in children and gender roles.
Prerequisite: ECO200Y/204Y/206Y; MATI33Y/I35Y/I37Y
ECO333YI Urban Economics 52L
Spatial economic theory and urban public policy: firms and individuals in partial and general equilibrium, land development and land-use controls, urban transportation, efficiency and equity in spending and taxing.
Prerequisite: ECO200Y/204Y/206Y; MATI33Y/I35Y/I37Y

ECO336YI Public Economics 52L
Theory of public goods, externalities, and the politics of government policy. Analysis of equity, incidence and incentive effects of taxes. An analytical treatment of the public sector. Exclusion: ECO236Y
Prerequisite: ECO200Y/204Y/206Y; MAT I 33Y/I 35Y/I37Y
ECO339YI Economics of Labour 52L, 26T
The operation of labour markets; determinants of supply and demand for labour; wage differentials; discrimination; investment in schooling and training; unemployment; economics of unions.
Exclusion: ECO239Y, 361 Y5
Prerequisite: ECO200Y/204Y/206Y; ECO220Y/227Y/STA(250H, $255 \mathrm{H}) /(257 \mathrm{H}, 26 \mathrm{IH})$
ECO340HI Economics of Income Distribution 26L
The personal distribution of income and wealth; measurement of inequality and poverty. The distributional effects of the tax system, government spending and economic regulation (including policies such as minimum wages, pay equity and employment equity).
Prerequisite: ECO200Y/204Y/206Y; ECO220Y/227Y/STA(250H,
$255 \mathrm{H}) /(257 \mathrm{H}, 26 \mathrm{IH})$
ECO342YI Twentieth Century 52L Economic History
Economic development of Europe and certain overseas areas, particularly Japan and the United States. Special attention to globalization before 1914, problems of the interwar years,
the Great Depression of the 1930's, the period since 1945, international trade, the balance of payments and exchange rate mechanisms, growth performance of the major industrial countries.
Prerequisite: ECO200Y/204Y/206Y/(ECO230Y, POL208Y)

## ECO350YI/ Special Topics in Economics 52S/26S

35IHI/
352HI
Courses may be offered in one or more subjects each year.
Students must meet the prerequisites announced by the Department (see the Undergraduate Secretary for details). Prerequisite:TBA
ECO353YI/ Special Topics in Economic $\quad$ 52S/26S
354HI/ $\quad$ History
$\mathbf{3 5 5 H I}$
Courses may be offered in one or more subjects each year.
Students must meet the prerequisites announced by the
Department (see the Undergraduate Secretary for details).
Prerequisite:TBA

## ECO358HI Financial Economics I 26L

An introduction to economics of financial assets and financial markets. Topics: inter-temporal choice, expected utility theory, security valuation, selected asset pricing models, market efficiency, and the term structure of interest rates - essential materials for an understanding of the role and operation of financial markets.
Prerequisite: ECO200Y/204Y/206Y, ECO220Y/227Y/
STA $(250 \mathrm{H}, 255 \mathrm{H}) /(257 \mathrm{H} / 26 \mathrm{IH})$
Exclusion: ACT349HI, 370HI, MGT33IYI, 337YI
ECO 359 HI Financial Economics II:
Agency and incomplete information problems inherent in financial transactions; the role of contractual arrangements in overcoming them. Financial constraints on investment decisions of firms; the financial system in economic growth; the
legal system in the functioning of financial markets. A look at theoretical and empirical literature covering these issues. Prerequisite: ECO 358 H
Exclusion:ACT349HI, 370HI, MGT33IYI, 337YI

## ECO360YI Economic Growth and Technological Change

With emphasis on the United States, Japan and Canada, this course examines theories of capitalism; Long Wave Cycle, the importance of productivity growth and Solow's residual, the economics of technological change, the Japanese/U.S. trade interface, the economic slowdown since 1973 and the current Canadian productivity challenge.
Prerequisite: ECO200Y/204Y/206Y, 202Y/208Y/209Y, ECO220Y/
227Y/ STA(250H, 255H/257H)

## Exclusion: ECO362H5

ECO369YI Health Economics 52L
The provision of health care provides many special problems of informational asymmetry, regulation, insurance and redistribution. The course considers the demand and supply side problems. Alternative reform proposals for health care are explored.
Prerequisite: ECO200Y/204Y/206Y, MATI33Y/I35Y/I37Y

## ECO370YI Economics of Organizations 52L

An introduction to the economic analysis of organizations and, in particular, the firm. An investigation of how markets can solve the twin problems of coordinating activities and motivating individuals; and, when markets are less successful, how organizations and special contractual relationships emerge as alternative institutions for allocating resources.
Exclusion: ECO38IH, ECO426H
Prerequisite: ECO200Y/204Y/206Y; ECO220Y/227Y/STA(250H, $255 \mathrm{H}) /(257 \mathrm{H}, 26 \mathrm{IH})$

## ECO380HI Managerial Economics I: Competitive Strategy

This course in applied microeconomics is concerned with the functioning of markets and the behaviour of firms within these markets. The focus is on strategic relationships between organizations. This includes competitive relationships among firms in the same market and cooperative relationships between a firm and its suppliers and distributors.
Exclusion: ECO200Y/204Y/206Y; ECO3IOY, MGT3IOY Prerequisite: ECO220Y/227Y/STA(250H,255H)/ (257H,26IH)

## ECO38IHI Managerial Economics II: Personnel Economics

An examination of selected material on compensation and incentives in organizations. Topics include recruitment and hiring, training, turnover, downsizing, motivating workers, teams, allocating authority and task assignment.
Exclusion: ECO370Y,426H, MGT3IOY
Prerequisite: ECO200Y/204Y/206Y; ECO220Y/227Y/
STA $(250 \mathrm{H}, 255 \mathrm{H}) /(257 \mathrm{H}, 26 \mathrm{IH})$

## ECO382HI Population Economics and Business Strategy

Strategic business in any organization depends crucially on people - the customers using the products and the employees executing the strategy. Using population economics as a foundation, topics covered include strategic management, consumer behaviour, life cycle models, generational analysis, trend analysis, marketing, risk analysis, global competitive analysis, diversification strategy, human resource planning, government relations, change management and sustainability.

Prerequisite: $\mathrm{ECO} 200 \mathrm{Y}(70 \%) / 204 \mathrm{Y}(70 \%) / 206 \mathrm{Y}(60 \%)$, ECO202Y(70\%)/208Y(60\%)/209Y(70\%), ECO220Y(70\%)/ 227Y(60\%)/ STA(250H[70\%], 255H[70\%])/STA(257H[60\%], 261H[60\%])
ECO398H0/ Independent Experiential Study Project 399Y0
An instructor-supervised group project in an off-campus setting. See page 47 for details.

## Note:

Many 400-level courses are offered as joint undergraduate and graduate courses. Students interested in any of these courses should consult with the instructor before enrolling.

## ECO416HI Macroeconometric Models for 26L, I3T Policy Analysis and Forecasting

The construction and operation of macroeconometric models.
The use of models for conducting policy simulations and for generating quantitative forecasts of economic activity.
Prerequisite: ECO 325 H
Co-requisite: ECO327Y
ECO4I8HI Empirical Applications of 26L Economic Theory
Topics class in applied econometrics, emphasizing empirical industrial organization. Emphasis on a balanced treatment of theory and econometric techniques used in empirical research in industrial organization (the study of firms and markets). How firms behave, how market equilibriums arise and how economic policies are used to affect market equilibriums.
Prerequisite: ECO327Y

## ECO4I9HI International Macroeconomics 26L

Contemporary issues in international monetary economics and macroeconomic policy formulation in open economies like Canada. A study of forces determining interest rates and exchange rates, inflation and unemployment; analysis of government policy in relation to financial markets.
Prerequisite: ECO200Y/204Y/206Y, 202Y/208Y/209Y, ECO220Y/ $227 \mathrm{Y} / \mathrm{STA}(250 \mathrm{H}, 255 \mathrm{H}) /(257 \mathrm{H}, 26 \mathrm{IH})$, permission of instructor
ECO420YI/
Special Topics in Economics
52S/26S

## 421 HI

422HI
Seminars or workshops may be offered in one or more subjects each year. Students must meet the prerequisites announced by the Department. (See the Undergraduate Secretary for details.) Prerequisite:TBA, permission of instructor

## ECO423HI Topics in North American <br> 26L

 Economic HistoryThemes are incentives, contracts, and the impetus for change. Topics include indigenous people of North America; indentured servitude; slavery; apprenticeships; the evolution of production from artisan shop to the factory; invention and the diffusion of technological innovations; institutions and growth.
Prerequisite: ECO206Y(70\%), 227Y(70\%)/
(STA257H[70\%],26IH[70\%]), or permission of the instructor. Exclusion: ECO307HI

ECO425HI Economics and Demographics 26S
A research-oriented course exploring the interrelationships between economics and demographic change, both historical and projected, with attention to the microeconomic

## Economics

foundations, macroeconomic performance, and policy in areas such as fertility, migration, education, labour markets, housing, crime, recreation, leisure, marketing, health, retirement and pensions. The Canadian experience, with some international comparisons.
Prerequisite: ECO200Y(70\%)/ECO204Y(70\%)/206Y(60\%),
202Y(70\%)/208Y(60\%)/209Y(70\%), 220Y(70\%)/227Y(60\%)/
STA(250H[70\%], 255H[70\%])/STA(257H[60\%], 26IH[60\%])
Co-requisite: ECO327Y/STA302H
ECO426HI Economics inside Organizations 26L
An examination of selected research on compensation, incentive issues, cooperation and allocation of authority in hierarchical organizations.
Exclusion: ECO370YI, ECO38IHI
Prerequisite: $\operatorname{ECO} 200 \mathrm{Y}(70 \%) / 206 \mathrm{Y}(60 \%)$, 220Y(70\%)/
227Y(60\%)/ STA(250H[70\%], 255H[70\%])/STA(257H[60\%], 26IH[60\%])

ECO429YI History of Economic Thought 52L (formerly ECO322YI)
Development of analytical economics from the 18th century with emphasis on Adam Smith and the British Classical School (David Ricardo, T.R. Malthus, and J.S. Mill), Karl Marx, the Marginalists and their successors to 1939 , including Keynes. Exclusion: ECO322YI, 322Y5
Prerequisite: ECO200Y/204Y/206Y; ECO202Y/208Y/209Y
ECO430YI/ Reading Course or Thesis TBA

## 43 HI

Intended for advanced Specialist students who have exhausted course offerings in a particular area. Open only when a faculty member is available and willing to supervise. Students must obtain the approval of the Associate Chair for Undergraduate Studies before enrolling.

## ECO435HI The Economics of Modern China 26L

 (formerly ECO335YI)A focus on post-1949 Chinese economy, and the PRC's economic legacy. Economic development during the Maoist period, particularly post-1979 reforms. China's experience is compared to Eastern Europe's and the role of China in the rapidly growing East Asian economy. This a limited enrolment seminar requiring extensive reading.
Exclusion: ECO335Y
Prerequisite: ECO200Y(70\%)/ECO204Y(70\%)/ECO206Y(60\%)

## ECO45IHI Macroeconomic Growth

 26LAn introduction to modern theories of the determinants of macroeconomic growth that examines the important question of why some countries are rich and others are poor. Topics include: investigation of empirical literature pertaining to international comparisons of recent and past rates of economic growth across countries.
Prerequisite: ECO325H, ECO327Y
ECO459HI International Trade Regulation 26L
The theory and political economy of international trade, with examination of specific trade institutions: Bretton Woods,WTO, NAFTA, tariff administration, most-favoured nation treatment, antidumping regulation, subsidies and countervailing duties, agriculture, trade in services, trade-related intellectual property, trade and environment, trade and developing countries.
Prerequisite: ECO328Y, permission of instructor

## ECO46IHI The Economics of Financial Risk Management

The role of risk management in both private and public sectors, a discussion of why firms and government should hedge financial risks; individual and social gains of financial risk management; identification and quantification of financial risks (including Value-at-Risk measures); how derivative securities can be used for financial risk management.
Exclusion: ACT349HI, 370HI, MGT33IYI, 337YI, 438HI
Prerequisite: $\mathrm{ECO} 358 \mathrm{H}(70 \%) / \mathrm{ECO} 460 \mathrm{H} 5(70 \%)$

## ECO462HI Financial Econometrics <br> 26L

This course provides an introduction to the econometrics used in empirical finance. Topics will include parametric and nonparametric models of volatility, evaluation of asset pricing theories and models for risk management and transactions data. The course will emphasize estimation and inference using computer based applications.
Prerequisite: ECO327YI (70\%), ECO358H(70\%)

## Employment Relations: see Woodsworth College

## Faculty

University Professors Emeriti
R. Frank, MA, Ph D, FRSC (U)
J.R. de J. Jackson, MA, Ph D, FRSC (V)
M. Millgate, MA, Ph D, FRSC

## Professors Emeriti

T.H.Adamowski, MA, Ph D
P.R. Allen, MA, Ph D (I)
F.J.Asals, MA, Ph D (N)
G.E. Bentley, B Litt, D Phil, FRSC (U)
C.R. Blake, MA, Ph D (U)
W.F. Blissett, MA, Ph D, FRSC (U)
P.L. Brückmann, MA, Ph D (T)
E. Cameron, MA, Ph D (U)
D.D.C. Chambers, MA, Ph D (T)
E. Cook, MA, Ph D, FRSC (V)
E.W. Domville, Ph D (T)
D.J. Dooley, MA, Ph D (SM)
J.D. Duffy, MA, Ph D (I) (V)
J. Dutka, MA, Ph D (University of Toronto Mississauga)
F.T. Flahiff, MA, Ph D (SM)
M. Garson, MA, Ph D (University of Toronto Mississauga)
H.A. Gleason, BS, Ph D (obiit)
R.I.C. Graziani, MA, Ph D (U)
P.M. Grosskurth, MA, Ph D (N)
W.H. Halewood, MA, Ph D (U)
G.A. Hamel, MA, Ph D (N)
B.S. Hayne, AM, Ph D (SM)
P.L. Heyworth, MA, B Litt (U) (obiit)
F.D. Hoeniger, MA, Ph D (V)
P. Howard, MA, Ph D (I)
W.J. Howard, MA, Ph D (University of Toronto Scarborough)
A.F. Johnston, MA, Ph D, LL D, FRSC (V)
W.J. Keith, MA, Ph D, FRSC (U)
M.C. Kirkham, M Phil (U)
J.C. Kuhn, MA, Ph D (SM)
A.M. Leggatt, MA, Ph D, FRSC (U)
J.F. Leyerle, Ph D (U) (obiit)
N.R. Lindheim, MA, Ph D
J.F. Lynen, MA, Ph D (U)
H.R. MacCallum, MA, Ph D (U)
J.J. Macpherson, MA, BLS, Ph D (V)
F.J. Marker, MA, DFA (U)
G. Matteo, MA, Ph D, (SM)
J. Millgate, MA, Ph D, FRSC (V)
L. Munk, MA, Ph D (University of Toronto Mississauga)
D. Neill, MA, B Litt
S. Neuman, Ph D, FRSC
R.B. Parker, MA, Ph D (T)
A.D. Pritchard, Ph D (U)
A.G. Rigg, MA, D Phil (T)
S.P. Rosenbaum, MA, Ph D, FRSC
A. Saddlemyer, MA, Ph D, D Litt, LL D, FRSC (V)
R.M.K. Schieder, MA, Ph D (T)
P.D. Seary, MA, D Phil (N)
W.D. Shaw, AM, Ph D, FRSC (V)
M.J. Sidnell, MA, Ph D (T)
J. Skvorecky, Ph D, FRSC (University of Toronto

Mississauga)
Sister G. Thompson, MA, Ph D (SM)
R.W.Van Fossen, AM, Ph D (University of Toronto Mississauga)
C. Visser, BLitt, Ph D (U)
G.T.Warkentin, MA, Ph D (V)
F.W.Watt, MA, B Litt, Ph D (U)
M.Wilson, MA, Ph D, FRSC (T)

Professor and Chair of the Department
B. Corman, AM, Ph D (T)

Associate Professor and Associate Chair
J.M. Reibetanz, MA, Ph D (T)

## University Professors

J.E. Chamberlin, Ph D, FRSC (N)
L.A. Hutcheon, MA, Ph D, FRSC (N)

## Professors

J.H.Astington, MA, Ph D
J.D. Baird, MA, Ph D (V)
A.J. Bewell, MA, Ph D, FRSC (U)
R.M. Brown, MA, Ph D (University of Toronto

Scarborough)
M. Cuddy-Keane, MA, Ph D (University of Toronto

Scarborough)
A.H. de Quehen, Ph D (U)
D.L. Esch, MA, Ph D (V)
E.D. Harvey, MA, Ph D (U)
E.R. Harvey, M Phil, Ph D
A. diP. Healey, MA, Ph D (U)
H.J. Jackson, MA, Ph D
A. Jaffe, PhD
C. Kanaganayakam, Ph D (T)
T. Keymer, MA, Ph D
D.N. Klausner, Ph D (U)
A.C. Lancashire, AM, Ph D (U)
D.I. Lancashire, MA, Ph D (N)
G. M. Leonard, MA, Ph D (University of Toronto

Scarborough)
J.L. Levenson, MA, Ph D, FRSC (T)
S.B. MacLean, MA, PhD
L. Magnusson, MA, Ph D
J.L. Matus, MA, Ph D (U)
H. Murray, MA, Ph D (V)
A.P.M. Orchard, MA, Ph D (T)
A. Quayson, Ph D
M. Redekop, MA, Ph D (V)
J.H. Reibetanz, AM, Ph D (V)
S.Z. Solecki, MA, Ph D (U)
P.A. Stevens, MA, Ph D
R. Sullivan, MA, Ph D, FRSC
L. Thomson, MA, Ph D (University of Toronto Mississauga)
D. Townsend, MA, Ph D (U)

## Associate Professors

A.Ackerman, MA, Ph D (U)

| S.C. Akbari, MA, Ph D (U) |
| :---: |
| C. Bolus-Reichert, MA, Ph D (University of Toronto Scarborough) |
| G.E. Clarke, MA, Ph D (U) (V) |
| J. DeLombard, MA, Ph D (University of Toronto Mississauga) |
| P.B. Downes, MA, Ph D (T) |
| U. Esonwanne, Ph D |
| G. Fenwick, MA, Ph D (T) |
| D.I. Galbraith, MA, Ph D (V) |
| M. Goldman, MA, Ph D (University of Toronto |
| Scarborough) |
| R. Greene, D Phil (University of Toronto Mississauga) |
| G. Henderson, MA, Ph D |
| N. ten Kortenaar, MA, Ph D (University of Toronto |
| Scarborough) |
| S. Lamb, MA, Ph D (University of Toronto Scarborough) |
| M.J. Levene, MA, Ph D (University of Toronto Misssissauga) |
| H. Li, Ph D |
| V. Li, MA, PhD |
| D.S. Lynch, PhD |
| R.R. McLeod, MA, Ph D (University of Toronto Mississauga) |
| N. Morgenstern, MA, Ph D |
| M. Nyquist, MA, Ph D (N) |
| J.J. O'Connor, MA, Ph D (SM) |
| J.W.O. Patrick, MA, Ph D (V) |
| C.E. Percy, MA, D Phil (N) |
| W. Robins, MA, Ph D (V) |
| S. Salih, MA, D Phil |
| C. Schmitt, MA, Ph D |
| D. Seitler, MA, Ph D |
| K. Weisman, MA, Ph D |
| D.E.White, MA, Ph D (University of Toronto Mississauga) |
| M. Woodland, MA, Ph |
| sistant Professors |
| M. Cobb, MA, Ph D |
| C. Columpar, Ph D (I) |
| S.E. Dickie, MA, Ph D |
| N. Dolan, MA, Ph D (University of Toronto Scarborough) |
| A. DuBois, Ph D (University of Toronto Scarborough) |
| A. Gillespie, MA, D Phil (University of Toronto Mississauga) |
| C. Hill, MA, Ph D (University of Toronto Mississauga) |
| D.H. Justice, MA, Ph D |
| J. Lopez, MA, Ph D |
| A. Maurice, MA, Ph D (University of Toronto Scarborough) |
| A. Most, MA, Ph D |
| N. Mount, MA, Ph D |
| M. Ruti, MA, Ph D (University of Toronto Mississauga) |
| N. Sammond, MA, Ph D (I) |
| H.S. Syme, AM, Ph D (University of Toronto Mississauga) |
| C. Warley, MA, Ph D |
| S.Wilson, MA, Ph D |
| M. Xie, Ph D |
| T.P.Yu, Ph D |
| nior Lecturer <br> J. Levine, MA, Ph D (V) |

Literature in English has a long history and is now written around the world. The Department of English offers a wide range of courses which engage many aspects of this vast subject: courses in theory, language, and method, in Canadian and indigenous north American literature, in American and transnational literatures, in British literature from its beginnings to the 19 th century, and in literature from the I8th century to the present. Some courses deal with historical periods, some examine particular genres or individual authors, some have a national or transnational focus, and some deal more exclusively with theory and critical methods. The Department's objective in every course is to deepen the student's awareness and appreciation of the complex and constantly evolving literary traditions of English around the world. More broadly, studying English develops skills of critical thinking, analysis, and expression that are required in all areas of research, business, and professional activity.

Courses are arranged in four series: this gradation indicates the level of work expected at each stage. In the 100 series, the emphasis falls on introducing students to the study of English at the university level through broad courses in a variety of literary forms. In the 200 series, courses are also introductory, but they focus on more specific areas. In the 300 series, courses are taught at a more advanced level. In the 400 series, the Department offers its most advanced studies in seminar format.

The Department of English offers several Programs of Study: these programs provide students with different frameworks in which to explore the field, while balancing the demands of breadth and depth. The Specialist Program constitutes the most intensive form of study, requiring a minimum of 10 English courses in a 20 -course degree. Students should note that the Specialist Program is not designed to meet the requirements for admission to any graduate program: those students who are interested in proceeding to graduate school should seek advice on course selection from their professors and from the undergraduate and graduate counsellors. Similarly, students considering a teaching career in Ontario should consult the admission counsellors at the Ontario Institute for Studies in Education/UT. The Major Program in English requires a minimum of 7 English courses in a 20-course degree and is often combined with other Major Programs in different subject areas. Finally, the Minor Program requires a minimum of 4 English courses in a 20-course degree. The Department also offers joint Specialist Programs in Drama and English, English and Linguistics, and English and Philosophy. Students with questions about the requirements of the various programs in English should consult the Office of the Associate Chair.

The Department of English publishes an Undergraduate Brochure each year: it is usually available by mid-April, in hard copy and on line. The Brochure provides detailed course descriptions and reading lists for the particular courses being taught the following year. The general policy of the Department is to regulate class size in order to achieve the best conditions possible for teaching and learning. Enrolment in many sections is therefore limited. Students are urged to consult the Undergraduate Brochure at www.utoronto.ca/english before enrolment begins.

Associate Chair: Professor J.M. Reibetanz, Room 2107, 7 King's College Circle (416-978-5026)

Undergraduate Counselling: Ms.V. Holmes, Room 2109, 7 King's College Circle (416-978-5026)

General Enquiries: Room 2101, 7 King's College Circle (416-978-3190)

## English Programs

## English (Arts program)

Enrolment in any English Program of Study requires completion of four previous courses or their equivalent. Students are responsible for completing all the requirements of the English Program in which they are enrolled. No minimum GPA is required. For programs in English prior to 2007, please refer to the appropriate Arts \& Science Calendar.

## Specialist program:

Ten ENG/JEF full courses or their equivalent, including at least three 300 -series full-course equivalents and one 400 -series full-course equivalent. Only one 100 -series ENG/JEF course may be counted toward program requirements. ENGIOOHI, ENGI85YI, HUMI99YI, MEJ204HI, JUM204HI may not be counted.

Courses must fulfill the following requirements:
I. At least I full-course equivalent from Group I (Theory, Language, Methods)
2. At least I full-course equivalent from Group 2 (Canadian and Indigenous North American Literatures)
3. At least I full-course equivalent from Group 3 (American and Transnational Literatures)
4. At least 3 full-course equivalents from Group 4 (British Literature to the 19th Century)
5. At least 1.5 full-course equivalents from Group 5 (Literature since the 18th Century)

## Major program:

Seven ENG/JEF full courses or their equivalent, including at least two 300 -series full-course equivalents. Only one 100 -series ENG/JEF course may be counted toward program requirements. ENGI00HI, ENGI85YI, HUMI99YI, MEJ204HI, JUM204HI may not be counted.
Courses must fulfill the following requirements:
I. At least .5 full-course equivalent from Group I (Theory, Language, Methods)
2. At least I full-course equivalent from Group 2 (Canadian and Indigenous North American Literatures)
3. At least I full-course equivalent from Group 3 (American and Transnational Literatures)
4. At least 2 full-course equivalents from Group 4 (British Literature to the 19th Century)
5. At least I full-course equivalent from Group 5 (Literature since the 18th Century)

## Minor program:

Four ENG/JEF full courses or their equivalent, including at least one 300 -series full-course equivalent. Only one 100 -series ENG/JEF course may be counted toward program requirements. ENGI00HI, ENGI85YI, HUMI99YI, MEJ204HI, JUM204HI may not be counted.

## Group I: Theory, Language, Methods

ENG 20 IYI, $205 \mathrm{HI}, 280 \mathrm{HI}$ (or ENG267HI), 285HI, 290YI, 380 HI (or ENG467YI), 382 YI (or ENG366YI), 383 HI (or ENG 468 HI ), 385 HI (or ENG367YI), $414 \mathrm{HI}, 415 \mathrm{HI}, 4 \mathrm{I} 6 \mathrm{HI}$, $4 \mathrm{I} 7 \mathrm{YI}, 4 \mathrm{I} 8 \mathrm{Y} \mathrm{I}, 4 \mathrm{I} 9 \mathrm{Y}$ I

## Group 2: Canadian and Indigenous North American

 LiteraturesENG $215 \mathrm{HI}, 252 \mathrm{YI}, 254 \mathrm{YI}, 277 \mathrm{YI}, 350 \mathrm{HI}, 352 \mathrm{HI}$ (or
ENG223HI), 353 YI (or ENG2I6YI), $354 \mathrm{YI}, 355 \mathrm{HI}, 357 \mathrm{HI}$, $424 \mathrm{HI}, 425 \mathrm{HI}, 426 \mathrm{HI}, 427 \mathrm{YI}, 428 \mathrm{YI}, 429 \mathrm{YI}$

## Group 3: American and Transnational Literatures

 ENG 250YI, 268HI (or ENG279YI), 270YI (or ENG253YI), 273YI, 275YI (or ENG256YI), 278YI, 360HI, 363YI (or ENG358YI), 364 Y ( or ENG359YI), 365 HI (or ENG36IHI), 368 HI (or ENG279YI), $370 \mathrm{HI}, 434 \mathrm{HI}, 435 \mathrm{HI}, 436 \mathrm{HI}, 437 \mathrm{YI}$, $438 \mathrm{YI}, 439 \mathrm{YI}$Group 4: British Literature to the 19th Century ENG $202 \mathrm{YI}, 220 \mathrm{YI}, 240 \mathrm{YI}, 300 \mathrm{YI}, 30 \mathrm{IHI}, 302 \mathrm{YI}, 303 \mathrm{HI}$ OR $304 \mathrm{YI}, 305 \mathrm{HI}$ OR $306 \mathrm{YI}, 307 \mathrm{HI}, 308 \mathrm{YI}, 3 \mathrm{IIHI}, 322 \mathrm{YI}, 323 \mathrm{HI}$, $330 \mathrm{HI}, 33 \mathrm{IHI}$ (or ENG332YI or ENG333HI), 335 HI (or ENG332YI or ENG333HI), $336 \mathrm{HI}, 337 \mathrm{HI}$ (or ENG334HI), $402 \mathrm{HI}, 460 \mathrm{HI}, 46 \mathrm{HI}, 462 \mathrm{HI}, 463 \mathrm{HI}, 464 \mathrm{YI}, 465 \mathrm{YI}, 466 \mathrm{YI}$, 469YI

Group 5: Literature since the 18th Century
ENG $210 \mathrm{YI}, 213 \mathrm{HI}, 214 \mathrm{HI}, 232 \mathrm{HI}, 233 \mathrm{YI}, 234 \mathrm{HI}, 235 \mathrm{HI}$,
$236 \mathrm{HI}, 237 \mathrm{HI}, 239 \mathrm{HI}, 324 \mathrm{YI}$ OR $325 \mathrm{HI}, 328 \mathrm{YI}, 329 \mathrm{HI}$, 340 HI (or ENG338YI), 34 IHI (or ENG338YI), 342 HI (or ENG339HI), 347 YI (or ENG3I2YI), $348 \mathrm{YI}, 349 \mathrm{HI}, 470 \mathrm{HI}$, $47 \mathrm{IHI}, 472 \mathrm{HI}, 473 \mathrm{HI}, 474 \mathrm{YI}, 475 \mathrm{YI}, 476 \mathrm{YI}, 479 \mathrm{YI}$

## English and Drama - See Drama

## English and Linguistics (Arts program)

Consult the Undergraduate Coordinator, Department of English.

## Specialist Program:

Fourteen full courses or their equivalent, including three 300series full-course equivalents and one 400 -series full-course equivalent.

## English (7 courses):

Only one 100 -series ENG/JEF course may be counted toward program requirements. ENGI00HI, ENGI85YI, HUMI99YI, MEJ204HI, JUM204HI may not be counted.
Seven ENG/JEF full courses or their equivalent, fulfilling the following requirements:
I. ENG285HI \& ENG385HI
2. At least I full-course equivalent from Group 2 (Canadian and Indigenous North American Literatures)
3. At least 0.5 full-course equivalent from Group 3 (American and Transnational Literatures)
4. At least 2 full-course equivalents from Group 4 (British Literature to the 19th Century), ENG240YI and ENG300YI specially recommended
5. At least 0.5 full-course equivalent from Group 5 (Literature Since the 18th Century)
Linguistics (7 courses):
First Year:
LIN IOOYI
Second Year:
LIN $228 \mathrm{HI}, 229 \mathrm{HI}, 23 \mathrm{IHI}, 232 \mathrm{HI}$
Third and Fourth Years:

Four FCEs in LIN/JAL/JFL/JLP/JLS (excluding LIN 200HI), at least one of which must be at the 400 -level, and two at the $300+$ level (LIN 362 HI specifically recommended)

## English and Philosophy (Arts program)

Consult the Undergraduate Coordinator, Department of English.

## Specialist program:

Fourteen full courses or their equivalent, including at least three 300 -series full-course equivalents and one 400 -series full-course equivalent.

## English:

Only one 100 -series ENG/JEF course may be counted toward program requirements. ENGI00HI, ENGI85YI, HUMI99YI, MEJ204HI, JUM204HI may not be counted.
I. Six to eight full courses or their equivalent.
2. Same Group Requirements as the English Major Program.

## Philosophy ( 6 to 8 courses):

Either 1. or 2.:
I. Six or seven Philosophy courses including at least three at the $300+$ level; or
2. Six or seven Philosophy courses selected as follows: First and Second Years:
One course in History of Philosophy; one half course in each of Aesthetics and Logic, one additional course or two half courses
Third Year:
Two 300+series courses
Fourth Year:
One other PHL 300+series course
NOTE:The fourteenth course must be a 400 -series course (a full or two half-courses) in English and/or Philosophy.

## English Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), all ENG courses are classified as HUMANITIES courses.
Please note: Not all courses are offered every year.

## 100-Series Courses

## Note

100-series courses are designed to introduce students to the study of English at the university level. They aim to foster interpretive skills and to promote effective writing. ENGIOOHI examines basic writing skills relevant to a wide range of university subject areas. ENGIIOYI focuses on elements of narrative writing in a variety of fictional and non-fictional forms. ENGI25YI explores the theatrical aspects of various literary forms. ENGI4OYI ranges over modern and contemporary literature, considering drama, fiction, and poetry from various regions of the world. JEFIOOYI explores some of the major works of the Western literary tradition from Homer to the twentieth century. Students should note that only ONE of ENG IIOYI, I25YI, I40YI, and JEFIOOYI may be counted towards English program requirements. ENGIOOHI, ENGI85YI, HUMI99YI may not be used to meet the requirements of any English program. First-year students may enrol in a 200 -series ENG course, if they are concurrently enrolled in one of ENG IIOYI, I25YI, I40YI or JEFIOOYI.

## ENGI00HI Effective Writing

39L
A course designed to improve competence in writing expository and persuasive prose for academic and other purposes. It aims to teach the principles of clear, well-reasoned prose, and their practical applications; the processes of composition (drafting, revising, final editing); the conventions of various prose forms and different university disciplines. The course does not meet the needs of students primarily seeking to develop English language proficiency. This course may not count toward any English program.

## ENGIIOYI Narrative <br> 78L

This course explores the stories that are all around us and that shape our world: traditional literary narratives such as ballads, romances, and novels, and also non-literary forms of narrative, such as journalism, movies, myths, jokes, legal judgements, travel writing, histories, songs, diaries, biographies.
ENGI25YI The Performance of Literature 78L Considering major dramatic genres such as comedy and tragedy, this course explores how performance affects our engagement with literature by focusing on the theatrical aspects of various literary forms-plays, novels, poems, sermons, essays-as well as adaptations of these texts into other forms and mediatelevision, film, musical recordings.
ENGI40YI Literature for our Time 78L
An exploration of how the literature of the twentieth and twenty-first centuries responds to our world through major forms of poetry, prose, and drama in texts drawn from a variety of national literatures. At least nine authors, such as Eliot, Frost, Heaney, Page, Plath, Rich, Wayman, Walcott, Yeats, Faulkner, Gordimer, Joyce, Morrison, Munro, Naipaul, Rushdie, Woolf, Beckett, Highway, O'Neill, Shaw, Soyinka, Stoppard.
ENGI85YI The Study of Literature 52L
See Academic Bridging Program.
Only for students registered in the Academic Bridging Program. This course may not count toward any English program.

## HUMI 99HI/YI First Year Seminar

 52SUndergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first-year students. It may serve as a distribution requirement course; see page 47. This course may not count toward any English program.
JEFIOOYI The Western Tradition 78L
An introduction to literature through major works of the Western literary tradition. What constitutes a literary "classic"? How have the great concerns of the Western tradition - human nature, its place in society, its mythmaking, its destiny - been represented in literature? These and other questions are examined by reference to II-I2 works, from ancient times to the twentieth century, by such authors as Homer, Sophocles, Ovid,Virgil, Dante, Shakespeare, Cervantes, Molière, Austen, Dostoevski, Kafka, Camus, Beckett and Márquez. (A joint course offered by the Departments of English and French; see also JEF IOOYI in the French program listings.)

## 200-Series Courses

## Note

200-series courses are open to students who have obtained standing in one full 100 -series ENG or JEF course or in at least four full-course equivalents in the Faculty of Arts and Science.

Students without these prerequisites may enrol in a 200 -series course if they are concurrently enrolled in one of ENGIIOYI, I25YI, I40YI, or JEFIOOYI. Not all 200-series courses are offered every year: please consult the Department's Brochure for further information. MEJ204HI and JUM204HI may not be used to meet the requirements of any English program.

Please note that exclusions will be strictly enforced.

## ENG20IYI Reading Poetry

78L
An introduction to poetry through a close reading of texts, focusing on its traditional forms, themes, techniques, and uses of language; its historical and geographical range; and its twentiethcentury diversity.

## ENG202YI British Literature: Medieval to Romantic

An introduction to influential texts that have shaped the British literary heritage, covering approximately twelve writers of poetry, drama, and prose, from Chaucer to Keats, with attention to such questions as the development of the theatre, the growth of the novel form, and the emergence of women writers.

## ENG205HI Rhetoric <br> 39L <br> An introduction to the rhetorical tradition from classical times

 to the present with a focus on prose as strategic persuasion. Besides rhetorical terminology, topics may include the discovery and arrangement of arguments, validity in argumentation, elements of style, and rhetorical criticism and theory.
## ENG2IOYI The Novel 78L

An introduction to the novel through a reading of ten to twelve texts, representing a range of periods, techniques, regions, and themes.

## ENG2I3HI The Short Story

This course explores shorter works of nineteenth- and twentieth-century writers. Special attention is paid to formal and rhetorical concepts for the study of fiction as well as to issues such as narrative voice, allegory, irony, and the representation of temporality.
ENG2I4HI The Short-Story Collection 39L This course explores collections of short stories. It examines individual stories, the relationships among and between stories, the dynamics of the collection as a whole, the literary history of this genre, along with its narrative techniques and thematic concerns.

## ENG2I5HI The Canadian Short Story

An introduction to the Canadian short story, this course emphasizes its rich variety of settings, subjects, and styles.

ENG220YI Shakespeare 78L
About twelve plays by Shakespeare representing the different periods of his career and the different genres he worked in (comedy, history, tragedy). Such plays as Romeo and Juliet; A Midsummer Night's Dream; Richard II; Henry IV, Parts I and II; As You Like It, Twelfth Night; Measure for Measure; Hamlet; King Lear;Antony and Cleopatra; The Tempest. Non-dramatic poetry may be included.

ENG232HI Biography and Autobiography 39L
An introduction to the varieties of life writing. Issues discussed include the differences between biography and autobiography, the nature of sources, the ethics of life writing, and the aims and biases of the biographer.
ENG233YI Women's Writing 39L
A study of eight to twelve women writers, this course may include fiction, drama, poetry and non-fiction. Approaches may engage feminist theories, histories, print culture, and other relevant concerns.
ENG234HI Children's Literature 39L
A critical and historical study of poetry and fiction written for or appropriated by children, this course may also include drama or non-fiction and will cover works by at least twelve authors such as Bunyan, Stevenson, Carroll, Twain, Alcott, Nesbit, Montgomery, Milne, Norton, and Fitzhugh.

## ENG235HI The Graphic Novel

An introduction to book-length sequential art, this course includes fictional and nonfictional comics by artists such as Will Eisner, Art Spiegelman, Frank Miller, Alan Moore, Chris Ware, Daniel Clowes, Julie Doucet, Marjane Satrapi, Chester Brown, and Seth.
ENG236HI Detective Fiction 39L
At least twelve works by such authors as Poe, Dickens, Collins, Doyle, Chesterton, Christie, Sayers, Van Dine, Hammett,
Chandler, Faulkner, P.D. James, Rendell.

## ENG237HI Science Fiction

39L
This course explores speculative fiction that invents or extrapolates an inner or outer cosmology from the physical, life, social, and human sciences. Typical subjects include AI, alternative histories, cyberpunk, evolution, future and dying worlds, genetics, space/time travel, strange species, theories of everything, utopias, and dystopias.

## ENG239HI Fantasy and Horror 39L

This course explores speculative fiction of the fantastic, the magical, the supernatural, and the horrific. Subgenres may include alternative histories, animal fantasy, epic fantasy, the Gothic, fairy tales, magic realism, sword and sorcery, and vampire fiction.

ENG240YI Old English Language \& Literature 78L
Prepares students to read the oldest English literary forms in the original language. Introduces the earliest English poetry in a woman's voice, expressions of desire, religious fervour, and the agonies of war. Texts, written 680-1100, range from the epic of Beowulf the dragon-slayer to ribald riddles.

## ENG250YI American Literature 78L

An introductory survey of major works in American literature,
this course explores works in a variety of genres, including poetry, fiction, essays, and slave narratives.
ENG252YI Canadian Literature 78L
An introductory survey of major Canadian works in poetry, prose, and drama from early to recent times.

ENG254YI $\quad$| Indigenous Literatures of |
| :--- |
| North America |

An introduction to Indigenous North American writing in
English, with significant attention to Aboriginal literatures
in Canada. The writings are placed within the context of
Indigenous cultural and political continuity, linguistic and
territorial diversity, and living oral traditions. The primary focus
is on contemporary Indigenous writing.

ENG268HI Asian North American Literature 39L Introduction to the literature and culture of Asian Canadians and Asian Americans, including fiction, poetry, drama, film, video, and electronic media. The course also explores how such works respond to representations of Asians in popular culture and to Asian North American history and politics.

## Exclusion: ENG279Y|

## ENG270YI Colonial and Postcolonial Writing 78L (formerly ENG253YI)

In this course we study literary and non-literary texts from the nineteenth century to the present day. Colonial texts are analysed alongside postcolonial interpretations of the nineteenth-century archive, giving students a grasp of colonial discourse and contemporary postcolonial analyses.

## Exclusion: ENG253Y|

ENG273YI Queer Writing 78L
Introducing a lesbian, gay, bisexual, trans, and queer tradition in literature and theory, this course explores classical, modern, postmodern, and contemporary literature, criticism, art, film, music, and popular culture.

## ENG275YI Jewish Literature in English (formerly ENG256YI)

A survey of Jewish literature in English, focusing on questions of language, history, religion, national identity, and genre, this course may include works of prose, poetry, drama, film, or music from various Jewish literary communities.
Exclusion: ENG256YI

## ENG277YI Introduction to African

## Canadian Literature

A study of Black Canadian Literature (poetry, drama, fiction, non-fiction) from its origin in the African Slave Trade in the eighteenth century to its current flowering as the expression of immigrants, exiles, refugees, and "indigenous Africans" (whose roots are essentially "Canadian"). Pertinent theoretical works, films and recorded music are also considered.

## ENG278YI Introduction to African

Literature in English
The course also introduces students to literary theory in this field.

## ENG280HI Critical Approaches to Literature 39L

 (formerly ENG267HI)An introduction to literary theory and its central questions, such as the notion of literature itself, the relation between literature and reality, the nature of literary language, the making of literary canons, and the roles of the author and the reader. Exclusion: ENG267HI

ENG285HI The English Language in the World 39L Many-voiced modern English dominates science, business, diplomacy, and popular cultures worldwide. This introductory course surveys transnational, regional, and social varieties of Later Modern English; the linguistic and social factors that have shaped them; their characteristic structures; and their uses in speech and in writing, both literary and non-literary.
ENG290YI Literature and Psychoanalysis 78L
An introduction to psychoanalysis for students of literature, this course considers major psychoanalytic ideas through close readings of selected texts by Freud. The course also explores critiques and applications of Freud's work and examines a selection of literary texts that engage psychoanalytic theory.

## ENG299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.
MEJ204HI Mathematics and Poetry 39L
An interdisciplinary exploration of creativity and imagination as they arise in the study of mathematics and poetry. The goal of the course is to guide each participant towards the experience of an independent discovery. Students with and without backgrounds in either subject are welcome. No calculus required.
Exclusion: JUM204HI

## 300-Series Courses

## Note

300 -series courses are open to students who have obtained standing in at least four full-course equivalents, including one full-course equivalent ENG or JEF course. Not all 300 -series courses are offered every year: please consult the Department's Brochure for further information. Students should note the special prerequisites for ENG389YI, $390 \mathrm{YI}, 39 \mathrm{IYI}, 392 \mathrm{HI}$, 393 HI and 394 YI : consult the Brochure before the May 15 deadline for instructions on applying for these courses.

Please note that exclusions will be strictly enforced.

## ENG300YI Chaucer

78L
The foundation of English literature: in their uncensored richness and range, Chaucer's works have delighted wide audiences for over 600 years. Includes The Canterbury Tales, with its variety of narrative genres from the humorous and bawdy to the religious and philosophical, and Troilus and Criseyde, a profound erotic masterpiece.

## ENG30IHI Spenser

Selections from The Faerie Queene and other works.
ENG302YI Poetry and Prose, I500-I600
Considering literature during the reign of the Tudors, this course may include poetry of Wyatt, Sidney, Mary Sidney Herbert, Marlowe, Shakespeare, Spenser, and Donne; prose of More, Askew, Sidney, Hakluyt, Hooker, Elizabeth I, Lyly, and Nashe; and supplementary readings from such writers as Erasmus, Castiglione, and Machiavelli.

## ENG303HI

Milton
Selections from Paradise Lost and other works. Exclusion: ENG304YI
ENG304YI Poetry and Prose, 1600-1660 78L
Considering literature during the reign of the early Stuarts and the Civil War, with special attention to Milton and Paradise Lost, this course also includes such poets as Donne, Jonson, Lanyer, Wroth, Herbert, and Marvell, and such prose writers as Bacon, Clifford, Donne, Wroth, Burton, Cary, Browne, Hobbes, Milton, and Cavendish.
Exclusion: ENG303HI
ENG305HI Swift, Pope, and their
39L
Selected works in prose and verse by Swift and Pope studied alongside works by their contemporaries. Topics may include
the legitimacy of satire, the role of criticism, and the growing importance of writing by women.
Exclusion: ENG306YI

## ENG306YI Poetry and Prose, 1660-I 800

Writers of this period grapple with questions of authority and individualism, tradition and innovation, in politics, religion, knowledge, society, and literature itself. Special attention to Dryden, Pope, Swift, Johnson, and at least six other authors. Exclusion: ENG305HI
ENG307HI Women Writers, 1660-1800
A study of poems, plays, novels, letters, periodical essays, polemical works, and books for children by such writers as Cavendish, Behn, Finch, Centlivre, Leapor, Burney, and Wollstonecraft. Topics may include patronage and publishing; nationality, class, and gender; and generic conventions.
ENG308YI Romantic Poetry and Prose 78L Poetry and critical prose of Blake,W.Wordsworth, Coleridge, Byron, P.B. Shelley, Keats; may include selections from other writers such as Crabbe, Scott, Landor, Clare, D. Wordsworth, M. Shelley, De Quincey.

## ENG3IIHI Medieval Literature

 39LThis course explores a selection of writings in early English, excluding those by Chaucer.
ENG322YI Fiction before 1832 78L
This course studies the emergence of prose fiction as a genre recognized in both a literary and a commercial sense. Authors may include Behn, Defoe, Richardson, Fielding, Sterne, Scott, and Austen.
ENG323HI Austen and Her Contemporaries 39L A study of selected novels of Jane Austen and of works by such contemporaries as Radcliffe, Godwin, Wollstonecraft, Wordsworth, Edgeworth, Scott, and Shelley, in the context of the complex literary, social, and political relationships of that time.
ENG324YI Fiction, 1832-1900 78L
Exploring the social and political dilemmas of a culture in transition, this course studies such topics as the comic art of Dickens, Trollope, and Thackeray, the Gothicism of the Brontës, the crisis of religious faith in George Eliot, and the powerful moral fables of Hardy. Students will read 10-I2 novels. Exclusion: ENG325HI

## ENG325HI Victorian Realist Novels

This course explores forms of realism in Victorian fiction and includes at least six novels by such authors as Dickens, Thackeray, George Eliot, Charlotte Bronte, Gaskell, Collins, Trollope, and Hardy.
Exclusion: ENG324YI
ENG328YI Modern Fiction to 1960 78L
This course explores ten to twelve works by such writers as James, Conrad, Cather, Forster, Joyce, Woolf, Lawrence, Faulkner, Rhys, Hemingway, Achebe, Ellison, Spark, and Lessing.
ENG329HI Contemporary British Fiction 39L This course explores six or more works by at least four British contemporary writers of fiction.
ENG330HI Early Drama 39L
This course explores liturgical plays, biblical plays, religious and political morality plays, and Tudor interludes.

## ENG33IHI Drama to 1603 <br> 39L

This course explores English drama to the end of the reign of Queen Elizabeth I, with attention to such playwrights as Lyly, Kyd, Marlowe, and Shakespeare.
Exclusion: ENG332YI and ENG333HI
ENG335HI Drama 1603 to 1642 39L
This course explores English drama from the death of Queen Elizabeth I to the closing of the theatres, with attention to such playwrights as Jonson, Middleton, Shakespeare, and Webster. Exclusion: ENG332YI and ENG333HI
ENG336HI Topics in Shakespeare 39L
A concentrated study of one aspect of Shakespeare's work, such as his use of a particular genre, a particular period of his work, a recurring theme, or the application of a particular critical approach.
ENG337HI $\begin{aligned} & \text { Drama, 1660-I800 } \\ & \text { (formerly ENG334HI) }\end{aligned}$
At least twelve plays, including works by Dryden, Wycherley, Congreve, and their successors, chosen to demonstrate the modes of drama practised during the period, the relationship between these modes and that between the plays and the theatres for which they were designed.
Exclusion: ENG334HI
ENG340HI Modern Drama to World War II 39L
A study of plays in English by such dramatists as Wilde, Yeats, Shaw, Synge, Glaspell, Hughes, and O'Neill, as well as plays in translation by such dramatists as Ibsen, Chekhov, Strindberg, and Pirandello.

## Exclusion: ENG338YI

ENG34IHI Modern Drama since World War II 39L A study of plays by such dramatists as Beckett, Miller, Williams, Pinter, Soyinka, and Churchill, with background readings from other dramatic literatures.
Exclusion: ENG338YI
ENG342HI Contemporary Drama 39L (formerly ENG339HI)
A study of ten or more plays by at least six recent dramatists. Exclusion: ENG339HI
ENG347YI Victorian Poetry and Prose 78L (formerly ENG3I2Y)
Writers (such as Darwin, Tennyson, Browning, Wilde, Nightingale, Christina Rossetti, Kipling) respond to crisis and transition: the Industrial Revolution, the Idea of Progress, and the "Woman Question"; conflicting claims of liberty and equality, empire and nation, theology and natural selection; the Romantic inheritance, Art-for-Art's-Sake, Fin de siècle, and "Decadence." Exclusion: ENG3I2Y

ENG348YI Modern Poetry to 1960 78L Special study of Hopkins, Yeats, Pound, Eliot, and Stevens; selections from other poets.
ENG 349HI Contemporary Poetry 39L
Works by at least six contemporary poets, such as Ammons, Ashbery, Heaney, Hughes, Lowell, Muldoon, and Plath.
ENG350HI Early Canadian Literature 39L
Writing in English Canada before 1914, from a variety of genres such as the novel, poetry, short stories, exploration and settler accounts, nature writing, criticism, First Nations cultural production.

## ENG352HI Canadian Drama (formerly ENG223HI)

A study of major Canadian playwrights and developments since 1940, with some attention to the history of the theatre in Canada.
Exclusion: ENG223HI

## ENG353YI Canadian Fiction <br> (formerly ENG216YI)

A study of twelve or more Canadian works of fiction, primarily novels.
Exclusion: ENG216Y|
ENG354YI Modern Canadian Poetry 78L
A study of major Canadian poets, modern and contemporary.
ENG355HI Indigenous Women's Literature 39L A study of works by Indigenous women writers from North America and beyond, with significant attention to Aboriginal writers in Canada. Texts engage with issues of de/colonization, representation, gender, and sexuality, and span multiple genres, including fiction, life writing, poetry, drama, film, music, and creative non-fiction.

ENG357HI New Writing in Canada 39L
Close encounters with recent writing in Canada: new voices, new forms, and new responses to old forms. Texts may include or focus on poetry, fiction, drama, non-fiction, or new media.
ENG360HI Early American Literature
This course explores writing in a variety of genres produced in the American colonies in the seventeenth and eighteenth centuries, such as narratives, poetry, autobiography, journals, essays, sermons, and court transcripts.
$\begin{array}{ll}\text { ENG363YI } & \begin{array}{l}\text { Nineteenth-Century American } \\ \\ \\ \\ \\ \text { (formerly ENG358YI) }\end{array}\end{array}$
78L

This course explores American writing in a variety of genres from the end of the Revolution to the beginning of the twentieth century.
Exclusion: ENG358YI

## ENG364YI Twentieth-Century American

Literature (formerly ENG359YI)
This course explores twentieth-century American writing in a variety of genres.
Exclusion: ENG359YI
ENG365HI Contemporary American Fiction 39 L (formerly ENG36IHI)
This course explores six or more works by at least four contemporary American writers of fiction.
Exclusion: ENG36IHI
ENG368HI Asian North American Poetry 39L and Prose
Close study of works by Asian American and Asian Canadian authors, with attention to the historical and political contexts in which such works have been written and read. Topics may include racial, diasporic, and hybrid identity; cultural nationalism and transnationalism; gender and sexuality; the politics of poetic form.
Exclusion: ENG279YI
ENG370HI Postcolonial and Transnational 39L

## Discourses

This course focuses on recent theorizations of postcoloniality and transnationality through readings of fictional and non-
fictional texts, along with analyses of contemporary films and media representations.

## ENG380HI History of Literary Theory 39L

Literary theory from classical times to the nineteenth century.
Topics include theories of the imagination, genre analysis,
aesthetics, the relations between literature and reality and
literature and society, and the evaluation and interpretation of literature.
Exclusion: ENG467YI
ENG382YI Contemporary Literary Theory 78L (formerly ENG366YI)
This course explores literary theory from the early twentieth century to the present. Schools or movements studied may include structuralism, formalism, phenomenology, Marxism, poststructuralism, reader-response theory, feminism, queer theory, new historicism, psychoanalysis, postcolonial theory, and cultural and race studies.
Exclusion: ENG366YI

## ENG383HI Critical Methods

(formerly ENG468HI)
39L

Sustained study of one school, movement, or approach in literary theory, history, or criticism. Content varies with instructors.
Exclusion: ENG468HI
ENG385HI History of the English Language 39L
This course explores English from its prehistory to the present day, emphasizing Old, Middle, and Early Modern English and the theory and terminology needed to understand their lexical, grammatical, and phonological structure; language variation and change; codification and standardization; literary and nonliterary usage.
Exclusion: ENG367YI
ENG389YI Creative Writing $52 S$
Restricted to students who in the opinion of the Department show special aptitude for writing poetry, fiction, or drama. For application procedure, see Department Brochure by May 15.
Prerequisite: Permission of instructor and the Associate Chair Exclusion: ENG369YI
ENG390YII Individual Studies TBA
392HI/
393HI/
394YI
A scholarly project chosen by the student and supervised by a member of the staff. The form of the project and the manner of its execution are determined in consultation with the supervisor. All project proposals should be submitted by May 15.
Proposal forms are available from the Department offices.
Exclusion: ENG490YI
Prerequisite:Three courses in English, permission of the instructor and the Associate Chair
ENG39IYI Individual Studies (Creative) TBA
A project in creative writing chosen by the student and supervised by a member of the staff. The form of the project and the manner of its execution are determined in consultation with the supervisor. All project proposals should be submitted by May I5. Proposal forms are available from the Department offices.
Prerequisite:Three courses in English, including ENG369YI, permission of the instructor and the Associate Chair

ENG398H0/ Independent Experiential Study Project 399Y0
An instructor-supervised group project in an off-campus setting. See page 47 for details.

## 400-Series Courses

## Note

400 -series courses are open to students who have obtained standing in at least nine full-course equivalents, including at least five full-course equivalent ENG or JEF courses. Students who require a 400 -series course to satisfy their program requirements have enrolment priority in the first round of course enrolment. 400-series courses are taught in a seminar format: enrolment is limited to 25 and students are expected to attend regularly and participate fully. Not all 400 -series courses are offered every year: please consult the Department's Brochure for further information.

## ENG402HI Special Studies in Old English 26S Poetry

An undergraduate/graduate seminar devoted to a close reading of selected Old English texts.
Prerequisite: Five courses in English, including ENG240Y।
ENG4I4HI/ Advanced Studies:Theory, 26S
415HI/ Language, Methods
416HI
Individual topics to be specified by instructors.

## ENG4I7YI/ Advanced Studies:Theory,

4I8YI Language, Methods
Individual topics to be specified by instructors.

## ENG4I9YI Advanced Research Seminar: $52 S$

Theory, Language, Methods
A seminar designed to provide students with the opportunity to practice their skills of research and interpretation at a particularly advanced level. Admission by permission of the Department.

ENG424HI/ Advanced Studies: Canadian and 26S 425HI Indigenous North American Literatures 426HI
Individual topics to be specified by instructors.

## ENG427Y I/ Advanced Studies: Canadian and $52 S$

 428YI Indigenous North American Literatures Individual topics to be specified by instructors.ENG429YI Advanced Research Seminar: 52S Canadian and Indigenous North American Literatures
A seminar designed to provide students with the opportunity to practice their skills of research and interpretation at a particularly advanced level. Admission by permission of the Department.

ENG434HI/ Advanced Studies:American and 26S
435HI Transnational Literatures
436HI
Individual topics to be specified by instructors.
ENG 437YI/ Advanced Studies: American and 52S
438YI Transnational Literatures
Individual topics to be specified by instructors.

## ENG 439YI Advanced Research Seminar: $52 S$

American and Transnational Literatures
A seminar designed to provide students with the opportunity to practice their skills of research and interpretation at a particularly advanced level. Admission by permission of the Department.

## ENG460HI/ Advanced Studies: British <br> 26S

46 HII Literature to the 19th Century
462HI/
463 HI
Individual topics to be specified by instructors.

| ENG464YI/ | Advanced Studies: British |
| :--- | :--- |
| 465YI/ | Literature to the I9th Century |
| 466YI |  |

466YI
Individual topics to be specified by instructors.
ENG469YI Advanced Research Seminar: $52 S$
British Literature to the 19th Century
A seminar designed to provide students with the opportunity to practice their skills of research and interpretation at a particularly advanced level. Admission by permission of the Department.

ENG470HI/ Advanced Studies: Literature
47IHI/ since the I8th Century
472HI/
473HI
Individual topics to be specified by instructors.

ENG474Y I/ | Advanced Studies: Literature |
| :--- |
| 475YI/ |$\quad 52 \mathbf{s i n c e}$ the I8th Century

476YI
Individual topics to be specified by instructors.

ENG479YI Advanced Research Seminar: $52 S$ Literature since the 18th Century
A seminar designed to provide students with the opportunity to practice their skills of research and interpretation at a particularly advanced level. Admission by permission of the Department.

## Centre for Environment

The Faculty of Arts and Sciences offers students a number of opportunities to study environment on the St. George campus. Students are encouraged to investigate the following environmental program options, as well as those of the new Centre for Environment (www.environment.utoronto.ca). See below.

## Environment \& Resource Management (Arts program):

(See program details under Geography, or at http://www.geog. utoronto.ca/)

These Specialist and Major programs can be linked with either the Centre's Arts or Science programs for an Honours Degree. This program focuses on resource and environmental planning, environmental assessment, water resources, waste management and Canada's forests from the perspective of Geography.

## Environmental Studies (Arts program):

(This program, formerly offered at Innis College, is now offered through the new Centre for Environment, and has been renamed Environmental Policy \& Practice - see below)

## Forest Conservation (Arts or Science programs):

(See program details under Forestry, or at www.forestry. utoronto.ca.)
These Specialist , Major and Minor programs can be linked with the Centre's science or arts programs for an Honours degree. Core subjects include world's forests, forest products in sustainable forestry, forest conservation practices, forest management and resource allocation, and forests and society. Other topics include biodiversity, sustainability, international policy, certification, intensive forest management, community management, forest health and forest fragmentation.

## Physical \& Environmental Geography (Science program):

(See program details under Geography, or at http://www.geog. utoronto.ca/)
These Specialist and Major programs can be linked with the Centre's science or arts programs for an Honours Degree. Core subjects include geomorphology, climatology, soil science and hydrology. Other topics include biogeography, remote sensing, climate assessment, biogeochemistry and environmental contaminants modeling.

## Faculty

## Cross-Appointed Full Professors <br> P. H. Byer, SB, SM, PhD, PEng <br> I. Leman Stefanovic, MA, Ph D <br> W.H.Vanderberg, BASc, MASc, PhD, PEng

## Cross-Appointed Associate Professors

W.S. Prudham, BA, BSc, MA, PhD
S. Scharper, Ph D

## Cross-Appointed Assistant Professor

C.Wiseman, Dr. Phil. Nat.

## Senior Lecturers

K. Ing, M Sc
D.C. Macdonald, Ph D
B.I. Savan, Ph D

The Faculty of Arts and Science established the Centre for Environment to help students focus the diverse strengths of the Faculty's environmental scholars into an academic program. In addition, the Centre's programs offer students access to environmental scholars in other units of the University.

## Core Programs:

The Centre offers HBA and HBSc minor, major and specialist programs: Environment and Science (Science), Environment and Society (Arts), and Environmental Policy and Practice (Arts) which are often taken in conjunction with another program(s) in a traditional academic field (e.g. Physics, Sociology, etc.).We consider this an ideal combination of disciplinary depth and interdisciplinary breadth.

The Centre's B.Sc. Environment and Science program is intended for students who are interested in studying and working in the environmental sciences with a focus on one of the Faculty's many scientific disciplines, from Actuarial Science through Psychology. The science program is a demanding one with a requirement for a number of 100 -level science courses in Biology, Chemistry, Earth Sciences, Mathematics and Physics. This foundation is necessary to give students the degree of cross-disciplinary scientific literacy necessary for our 200-level science courses; ENV234Y (Environmental Biology), ENV235Y (Physics and Chemistry of Planet Earth) or ENV236Y (Human Interactions with the Environment). In most cases, students will be combining Environment and Science with another science option (a Specialist or Major or two Minors) for an Honours B.Sc. degree program.

The Centre's B.A. Environment and Society program is a broad general program intended for students interested in studying and working in an environmental area within the social sciences or humanities, e.g. geography, economics, ethics, or international relations. Environment and Society may also be appropriate for students taking a B.Sc. program who do not wish to also enroll in Environment and Science. In most cases students will be combining Environment and Society with another option (a Specialist or Major or two Minors) for an Honours B.A. or B.Sc. degree. Companion programs for students in Environment and Society could come from any of the Faculty's social sciences or humanities disciplines (including Commerce). NOTE: Students may not take both an Environment and Society program and an Environmental Policy and Practice program, unless one of them is not required to meet degree requirements.

In the Centre's Environmental Policy and Practice program (formerly Environmental Studies), understanding leads to action. This program offers rigorous academic study of the economic, social and political forces driving today's issues - globalization, species extinction, the Kyoto Protocol on climate change, the fight for sustainable cities, smog, toxic pollution and human health. The program links intellectual understanding of the environmental crisis with opportunities to use this knowledge to help solve these problems - here in the Toronto area, nationally and globally.
Students study in small classes with extensive faculty contact. The faculty include both academic scholars and professional practitioners, which means students gain both academic skills and knowledge, and practical skills and experience, both in the class-room and in the community. The program specializes in environmental policy and governance, and gives students a grounding in scientific literacy and evolving cultural attitudes

## Centre for Environment

toward nature. Together, the academic and applied experience students gain in this program provides a solid foundation for graduate studies and professional careers. NOTE: Students may not take both an Environment and Society program and an Environmental Policy and Practice program, unless one of them is not required to meet degree requirements.

## Interfaculty Combination: Environmental Policy and Practice and International Development Studies

The program combination of Environmental Policy and Practice and International Development Studies is for students enrolled in the Faculty of Arts and Science on the St. George campus wishing to pursue a Specialist or Major program in Environmental Policy and Practice at the Centre in conjunction with a Major program in International Development Studies at the Scarborough campus, or for students enrolled at the Scarborough campus wishing to pursue a Specialist program in International Development Studies at Scarborough in conjunction with a Major program in Environmental Policy and Practice at the Centre (for the latter option, Scarborough students should consult the University of Toronto Scarborough Calendar for 2007-08).

## Collaborative Specialist and Major Programs:

The Centre offers six Science specialist programs: Environment \& Health; Environmental Chemistry; Environmental Geosciences; Earth Systems: Physics and Environment; Past Environments; and Environment \& Toxicology. The Centre also offers a collaborative major program in Environmental Geosciences, and a new collaborative Environmental Ethics B.A. major program. These programs combine the Centre's interdisciplinary core with a deliberately focused set of discipline-specific courses.

## Directed Environmental Minor Programs:

Environmental minor programs are offered by a number of departments. Five are science and four are arts minors. These programs are intended for students interested in acquiring a hierarchical body of environmental knowledge in a specific discipline.

These minors are open to any student irrespective of program. As with any minor, these programs can be combined with other programs of study (i.e., minors and majors) to meet the requirements for a degree. (See page 25 of the Calendar for program requirement details).

All Science programs in the Centre include a very strong first-year science component with core interdisciplinary science courses in subsequent years. Students intending to pursue Environment and Science or any of the Science specialist programs are advised to choose first year courses from BIO I50YI and CHM (I38HI, I39HI)/I5IYI, MAT I35YI/I37YI/I57YI/JMB I70YI, PHYI38YI/I40YI, GGRI00YI. Students should compare specific program requirements and the prerequisites for ENV235YI, 236YI when selecting specific courses.

Arts programs in the Centre build on a base of social science and humanities courses. Environment and Society, as well as Enviromental Policy and Practice, do not require specific First Year courses. Students intending to follow arts programs in the environment might find it helpful to take ENV200YI in first year and to include some First Year course choices from the 100level offerings in Anthropology, Biology, Economics, Geography,

History, Philosophy, Political Science or Sociology.
Note: Majors and specialists in Centre for Environment programs are eligible for the Douglas Pimlott scholarships and awards, the new Robert Hunter Scholarship, and several other Centre-based scholarships (see http://www.environment. utoronto.ca/UndergraduatePrograms/Scholarships/)
Students interested in Centre for Environment programs should refer to the program listings on the following pages. Students should be aware that numerous programs not explicitly labeled as environmental have relevance for the study of the environment (e.g. Forestry Conservation, Ecology). For further information, see http://www.environment.utoronto.ca/ or contact David Powell, Undergraduate Student Advisor, Centre for Environment at 33 Willcocks St., Room I049A, 4I6-9468100 or david.powell@utoronto.ca

## Centre for Environment Programs

## Environment \& Science (Science program)

Consult David Powell, Undergraduate Student Advisor, Centre for Environment, Room 1049A, Earth Sciences Centre, 416-9468100 or david.powell@utoronto.ca

## Specialist program:

(13 full courses or their equivalent which includes fulfillment of the Faculty's Distribution requirement; must include at least four 300+-series courses, one of which must be at the 400level)
Enrolment in this program is limited to students already in a two major program, one major of which is Environment and Science (see Major program note below). Students must also have completed 8 credits including JGE22IYI/JIE222YI, one of ENV234YI, 235 Y I or 236 Y . This is a Type 2 program requiring a minimum CGPA of 2.3. Not all qualified applicants may be admitted. As part of the application process to the Specialist program, a proposal for ENV490YI must be approved by the Centre and must identify a three-course transdisciplinary theme. Information on application and acceptance timelines is available in the Registration Handbook and Timetable. For more information, please refer to http://www.environment. utoronto.ca/UndergraduatePrograms/ApplicationProcedures/ ApplicationProcedures.

## First Year:

Successful enrolment in the Environment and Science Specialist program requires prior enrolment in the Environment and Science Major. Consequently, students must complete the first year requirements as listed in the Major program below. These courses are part of the 13 required courses for the Specialist.
Higher Years:
I. JGE22IYI/JIE 222YI, ENV 234YI, $235 \mathrm{YI} / 236 \mathrm{Y}$ I, 32 IYI , 490 YI ; ENV $4 \mathrm{IOHI} / \mathrm{JIE} 4 \mathrm{IOHI} /$ an alternative approved research course
2. A minimum 0.5 FCE from ENV 42 IHI or any approved departmental or college independent research project
3. ECO $220 \mathrm{YI} / \mathrm{GGR}(270 \mathrm{HI}, 27 \mathrm{IHI}) / \mathrm{PSY}(20 \mathrm{IHI}, 202 \mathrm{HI}) /$ SOC 300 Y I/STA $(220 \mathrm{HI}, 22 \mathrm{IHI} / \mathrm{BIO} 225 \mathrm{HI}) / \mathrm{STA}(250 \mathrm{HI}$, $255 \mathrm{HI}) /(257 \mathrm{HI}, 26 \mathrm{IHI})$ or an approved alternative
4. Three 300+-level full courses contributing to a transdisciplinary theme for the ENV490YI course

## Centre for Environment

## Major program:

(6 full courses or their equivalent which includes fulfillment of the Faculty's Distribution requirement; must include at least two full-course equivalents at the $300+$-level)
This program must be taken in conjunction with another major towards fulfillment of an Honours B.Sc. degree. The student must complete at least 3 courses from the first- year list before enroling in the Environment and Science Major. The six full course equivalents that constitute the Major Program are those listed below under "Higher Years." This is a Type 2 program requiring a minimum CGPA of 2.0. Information on application and acceptance timelines is available in the Registration Handbook and Timetable. For more information, please refer to http://www.environment.utoronto.ca/UndergraduatePrograms/ ApplicationProcedures/ApplicationProcedures.

First Year:
Students must complete BIO 150 Y I and at least two of CHM (I38HI, I39HI)/I5IYI; GGR I00YI; MAT I $35 \mathrm{YI} / \mathrm{I} 37 \mathrm{YI} /$ I57YI/JMB I70YI; PHY IIOYI/I38YI/I40YI (PHY I38YI recommended) before applying to enrol in the Major program.
Higher Years:
I. JGE22IYI/JIE 222YI, ENV 234YI, 235YI/236YI, 32IYI; ENV $4 \mathrm{IOHI} / \mathrm{JIE} 4 \mathrm{IOHI} /$ an alternative approved research course
2. A minimum 0.5 FCE from ENV 42 IHI or any approved departmental or college independent research project
3. ECO $220 \mathrm{YI} / G G R(270 \mathrm{HI}, 27 \mathrm{IHI}) / \mathrm{PSY}(20 \mathrm{IHI}, 202 \mathrm{HI}) /$ SOC 300 Y I/STA ( $220 \mathrm{HI}, 22 \mathrm{IHI} / \mathrm{BIO} 225 \mathrm{HI}$ )/STA $(250 \mathrm{HI}$, $255 \mathrm{HI}) /(257 \mathrm{HI}, 26 \mathrm{IHI})$ or an approved alternative

## Minor program:

(4 full courses or their equivalent which includes fulfillment of the Faculty's Distribution requirement; must include at least one full-course equivalent at the 300+-level)

Students must complete at least 3 of the first-year courses before applying to enrol in the Environment and Science Minor. The four courses that constitute the Minor Program are those listed below under "Higher Years." This is a Type 3 program requiring a minimum CGPA of 2.0. Information on application and acceptance timelines is available in the Registration Handbook and Timetable. For more information, please refer to http://www.environment.utoronto.ca/UndergraduatePrograms/ ApplicationProcedures/ApplicationProcedures.

## First Year:

Students must complete BIO 150 YI and at least two of CHM $(138 \mathrm{HI}, \mathrm{I} 39 \mathrm{HI}) / I 5 \mathrm{IYI} ; \mathrm{GGR}$ I00YI; MAT I $35 \mathrm{YI} / \mathrm{I} 37 \mathrm{YI/}$ I57YI/JMB I70YI; PHY I38YI/I40YI before applying to enrol in the Minor program
Higher Years:
JGE22IYI/JIE 222YI, ENV 234YI, 235YI/236YI, 32IYI

## Environment \& Society (Arts program)

Consult David Powell, Undergraduate Student Advisor, Centre for Environment, Room 1049A, Earth Sciences Centre, 416-9468100 or david.powell@utoronto.ca

## Specialist program:

(IO full courses or their equivalent which includes fulfillment of the Faculty's Distribution requirement ; must include at least four 300+-series courses, one of which must be at the 400 level)
Enrolment in this program is limited to students already in a
two major program, one major of which is Environment and Society (see Major program note below). Students must also have completed 8 credits including JGE22IYI/JIE222YI, and their science literacy requirement (see 3. below). This is a Type 2 program requiring a minimum CGPA of 2.3. Not all qualified applicants may be admitted. As part of the application process to the Specialist program, a proposal for ENV490Y। must be approved by the Centre and must identify a threecourse transdisciplinary theme. Information on application and acceptance timelines is available in the Registration Handbook and Timetable. For more information, please refer to http:// www.environment.utoronto.ca/UndergraduatePrograms/ ApplicationProcedures/ApplicationProcedures.

## First Year:

Successful enrolment in the Environment and Society Specialist program requires prior enrolment in the Environment and Society Major. Consequently, students must complete the first year requirements as listed in the Major program below.
Higher Years:
I. JGE22IYI/JIE 222YI, ENV 223HI, 32IYI, 490YI, 4IOHI/

JIE $410 \mathrm{HI} /$ or an approved alternative research skills course
2. A minimum 0.5 FCE from ENV 42 IHI or any approved departmental or college-based independent research project
3. ENV 200 Y I or one full course equivalent from Group A or any Life Science course
4. I.5 full course equivalents from Group B or alternatives approved by the Undergraduate Student Advisor of the Centre
5. Three $300+$-level courses contributing to a transdisciplinary theme for the ENV490YI course

## Major program:

(6 full courses or their equivalent which includes fulfillment of the Faculty's Distribution requirement ; must include at least two full-course equivalents at the 300+-level)

This program must be taken in conjunction with another major towards fulfillment of an Honours degree program. However, the Major program in Environmental and Society cannot be combined with a Major or Minor program in Environmental Policy and Practice. The six courses that constitute the Major Program are those listed below under "Higher Years." This is a Type 2 program requiring completion of 4 full courses with a minimum CGPA of 2.0. Information on application and acceptance timelines is available in the Registration Handbook and Timetable. For more information, please refer to http:// www.environment.utoronto.ca/UndergraduatePrograms/ ApplicationProcedures/ApplicationProcedures.

## First Year:

Students must complete at least four full courses or their equivalent before applying to enrol in the Major program Higher Years:
I. JGE22IYI/JIE 222YI, ENV $223 \mathrm{HI}, 32 \mathrm{IYI}, 4 \mathrm{IOHI} / \mathrm{JIE}$ $410 \mathrm{HI} /$ or an approved alternative research skills course
2. A minimum 0.5 FCE from ENV 42 IHI or any approved departmental or college-based independent research project
3. ENV 200YI or one full course equivalent from Group A or any Life Science course
4. I. 5 full course equivalents from Group B or alternatives approved by the Undergraduate Student Advisor of the Centre

## Centre for Environment

## Minor program:

(4 full courses or their equivalent which includes fulfillment of the Faculty's Distribution requirement ; must include at least one full-course equivalent at the 300+-level)
The Minor program in Environmental and Society cannot be combined with a Major or Minor program in Environmental Policy and Practice. The four courses that constitute the Minor Program are those listed below under "Higher Years." This is a Type 2 program requiring prior completion of 4 courses with a minimum CGPA of 2.0. Information on application and acceptance timelines is available in the Registration Handbook and Timetable. For more information, please refer to http:// www.environment.utoronto.ca/UndergraduatePrograms/ ApplicationProcedures/ApplicationProcedures.
First Year:
Students must complete at least four full courses before applying to enrol in the Minor program
Higher Years:
I. JGE22IYI/JIE 222YI, ENV 32IYI
2. ENV 200 Y I or one full course equivalent from Group A or any Life Science course
3. One full course equivalent from Group B or an alternative approved by the Undergraduate Student Advisor of the Centre

## Group A:

ENV 200YI;AST $12 \mathrm{IHI}, 20 \mathrm{IHI}$; EEB/BOT 202YI; CHM 200YI;
FOR $200 \mathrm{HI} ; 20 \mathrm{IHI} ;$ GLG $102 \mathrm{HI}, 103 \mathrm{HI}, 105 \mathrm{HI}, \mathrm{II} 0 \mathrm{HI}$,
205HI;JPU 200YI; PHE IIOHI; EEB/ZOO 200YI, 2I4YI,
215 HI

## Group B:

ABS $250 \mathrm{HI}, 402 \mathrm{HI} ;$ ANT $200 \mathrm{Y}, 204 \mathrm{YI}, 3 \mathrm{I} 5 \mathrm{HI}, 349 \mathrm{HI}, 364 \mathrm{YI}$, $366 \mathrm{HI}, 450 \mathrm{HI} ;$ APS $203 \mathrm{HI}, 302 \mathrm{HI}$ (App. Sci. \& Eng.); ECO $3 \mathrm{I} 3 \mathrm{HI}, 3 \mathrm{I} 4 \mathrm{HI}, 324 \mathrm{YI}, 333 \mathrm{YI}$; ENV 223HI, 234YI, 235YI, $236 \mathrm{YI}, 332 \mathrm{HI}, 333 \mathrm{HI}, 335 \mathrm{HI}, 340 \mathrm{HI}, 34 \mathrm{IHI}, 350 \mathrm{HI}, 395 \mathrm{YI}$, $420 \mathrm{YI}, 422 \mathrm{HI}, 423 \mathrm{HI}, 424 \mathrm{HI}, 440 \mathrm{YI}, 44 \mathrm{IHI}, 442 \mathrm{HI}, 443 \mathrm{HI}$, $444 \mathrm{HI}, 445 \mathrm{HI}, 446 \mathrm{HI}, 447 \mathrm{HI}, 48 \mathrm{IHI}, 482 \mathrm{HI}, 483 \mathrm{YI}, 49 \mathrm{YI}$, $492 \mathrm{HI}, 493 \mathrm{HI} ;$ FOR $300 \mathrm{HI}, 30 \mathrm{IHI}, 302 \mathrm{HI}, 303 \mathrm{HI}, 400 \mathrm{YI}$, $40 \mathrm{IHI} ;$ GGR $233 \mathrm{YI}, 330 \mathrm{HI}, 3 \mathrm{I} 4 \mathrm{HI}, 33 \mathrm{IHI}, 332 \mathrm{HI}, 333 \mathrm{HI}$, $334 \mathrm{HI}, 335 \mathrm{HI}, 338 \mathrm{HI}, 393 \mathrm{HI}, 403 \mathrm{HI}, 409 \mathrm{HI}, 4 \mathrm{I} 5 \mathrm{HI}, 4 \mathrm{I} 8 \mathrm{HI}$, $435 \mathrm{HI}, 45 \mathrm{IHI} ; \mathrm{HIS} 3 \mathrm{I} 8 \mathrm{Y}, 404 \mathrm{HI} ; \mathrm{HPS} 202 \mathrm{HI}, 307 \mathrm{HI}, 3 \mathrm{I} 3 \mathrm{HI}$, $328 \mathrm{HI} ;$ JAG32IHI; JIE 307YI; JUG 320HI; UNI 460YI; PHL $273 \mathrm{HI}, 373 \mathrm{HI} ;$ POL $20 \mathrm{IYI}, 3 \mathrm{I} 8 \mathrm{HI}, 34 \mathrm{IHI}, 346 \mathrm{HI}, 347 \mathrm{YI}$, $4 \mathrm{I} 3 \mathrm{HI}, 469 \mathrm{HI}$; PSY 335 HI ; RLG $228 \mathrm{HI}, 3 \mathrm{IIHI}, 345 \mathrm{HI}, 484 \mathrm{HI}$; SOC $205 \mathrm{YI}, 385 \mathrm{HI}$; UNI $260 \mathrm{YI}, 360 \mathrm{YI}$; or an alternative approved by the Undergraduate Student Advisor of the Centre

## Environmental Policy and Practice (Arts program)

Environmental Policy and Practice is designed to be taken on its own, or in combination with either a BSc program (such as Biology, Geology, or Chemistry) or another BA. program (such as Geography, Political Science, or Economics). However, a Major or Minor program in Environmental Policy and Practice cannot be combined with a Major or Minor program in Environment and Society. It is recommended that students give serious consideration to combining one of these Environmental Policy and Practice programs with another program. Students
are advised to consult with the Undergraduate Student Advisor about combining programs when enrolling in these programs David Powell (416-946-8I00 or david.powell@utoronto.ca).

## Specialist program:

(II full courses or their equivalent including at least one 400 level course)

First Year:
Successful enrolment in the Specialist requires prior enrolment in the Environmental Policy and Practice Major or Minor and completion of at least 10 full-course equivalents, with a minimum mark of $70 \%$ in JGE22IYI/JIE222YI. The CGPA and other relevant factors will also be a consideration.
Higher Years:
I. Program Foundation: JGE22 IYI/JIE222YI, ENV 223 HI , $320 \mathrm{YI}, 332 \mathrm{HI} / 333 \mathrm{HI}, 34 \mathrm{IHI}, 422 \mathrm{HI}, 423 \mathrm{HI}$
2. Statistics: 0.5 full-course equivalent statistics course or its equivalent in a course with significant statistics content (approved by the Undergraduate Student Advisor)
3. Applied Professional Experience: ENV 340HI, 440YI and ENV4IOHI, $420 \mathrm{YI} /(443 \mathrm{HI}, 444 \mathrm{HI}) /$ one full-course equivalent of equivalent applied research course(s) approved by the Undergraduate Coordinator.
4. ENV Electives: 2 full-course equivalents from Group $A$
5. Electives: I full-course equivalent from among Groups A, B, $C$ and $D$ approved by the Undergraduate Student Advisor
Note: Students may request some modification of program course requirements (up to I full-course equivalent) that reflects their particular overall academic objectives. Consult with Undergraduate Student Advisor.

## Major program:

(7 full courses or their equivalent, including at least two $300+$ series courses)

First Year:
Students must complete at least four full courses or their equivalent before applying to the Major, and have a minimum CGPA of 2.3 , although exceptions may be made based on excellent performance in a relevant course(s), improved performance in the most recent academic year, or job and/or volunteer experience. Enrolment in this Type 2 program is limited.
Higher Years:
I. Program Foundation: JGE22IYI/JIE222YI; ENV 223 HI , $320 \mathrm{YI}, 332 \mathrm{HI} / 333 \mathrm{HI}, 34 \mathrm{IHI}, 422 \mathrm{HI}, 423 \mathrm{HI}$
2. Applied Professional Experience: ENV $340 \mathrm{HI}, 440 \mathrm{YI}$ or ENV4IOHI, $420 \mathrm{YI} /(443 \mathrm{HI}, 444 \mathrm{HI}) /$ one full-course equivalent of equivalent applied research course(s) approved by the Program Director
3. ENV Electives: I full-course equivalent from among Groups $A$ and $B$, of which at least 0.5 full-course equivalent must come from Group A
Note: Students may request some modification of program course requirements (up to I full-course equivalent) that reflects their particular overall academic objectives. Consult with Undergraduate Student Advisor.

## Centre for Environment

## Minor program:

(4 full courses or their equivalent including at least one 300+ series course)

First Year:
Students must complete at least four full courses or their equivalent before applying to the Minor, and have a minimum CGPA of 2.0 , although exceptions may be made based on excellent performance in a relevant course(s), improved performance in the most recent academic year, or job and/or volunteer experience. Enrolment in this Type 3 program is limited.
Higher Years:
I. Program Foundation: JGE22IYI/JIE222YI, ENV 320YI, $332 \mathrm{HI} / 333 \mathrm{HI}, 34 \mathrm{IHI}, 422 \mathrm{HI} / 423 \mathrm{HI}$
2. ENV Electives: 0.5 full-course equivalent from Group A or B
Note: Students may request some modification of program course requirements (up to I full-course equivalent) that reflects their particular overall academic objectives. Consult with Undergraduate Student Advisor.

## Group A:

ENV $350 \mathrm{HI}, 422 \mathrm{HI}, 423 \mathrm{HI}, 424 \mathrm{HI}, 44 \mathrm{IHI}, 445 \mathrm{HI}, 446 \mathrm{HI}$, 447HI; JIE 307YI

## Group B:

ENV $223 \mathrm{HI}, 234 \mathrm{YI}, 235 \mathrm{YI}, 236 \mathrm{YI}, 3 \mathrm{I} 5 \mathrm{HI}, 332 \mathrm{HI}, 333 \mathrm{HI}$, $335 \mathrm{HI}, 340 \mathrm{HI}, 395 \mathrm{YI}, 420 \mathrm{YI}, 440 \mathrm{YI}, 442 \mathrm{HI}, 443 \mathrm{HI}, 444 \mathrm{HI}$, $48 \mathrm{IHI}, 482 \mathrm{HI}, 483 \mathrm{YI}, 49 \mathrm{Y}$ I, $492 \mathrm{HI}, 493 \mathrm{HI} ;$ GGR338HI; IDSBO2HI (University of Toronto Scarborough)

Group C (Social Science and Humanities): ABS $250 \mathrm{HI}, 402 \mathrm{HI} ;$ ANT $364 \mathrm{YI}, 450 \mathrm{HI} ;$ APS $203 \mathrm{HI}, 302 \mathrm{HI}$ (App. Sci. \& Eng.); ECO $3 \mathrm{I} 3 \mathrm{HI}, 3 \mathrm{I} 4 \mathrm{HI}$; FOR $302 \mathrm{HI}, 303 \mathrm{HI}$, $400 \mathrm{YI}, 40 \mathrm{IHI} ;$ GGR $233 \mathrm{YI}, 272 \mathrm{HI}, 273 \mathrm{HI}, 3 \mathrm{I} 4 \mathrm{HI}, 330 \mathrm{HI}$, $33 \mathrm{IHI}, 332 \mathrm{HI}, 334 \mathrm{HI}, 335 \mathrm{HI}, 393 \mathrm{HI}, 4 \mathrm{I} 5 \mathrm{HI}, 4 \mathrm{I} 8 \mathrm{HI}, 435 \mathrm{HI}$, $473 \mathrm{HI} ; \mathrm{HIS} 3 \mathrm{I} 8 \mathrm{YI}, 404 \mathrm{HI} ; \mathrm{HPS} 307 \mathrm{HI}, 3 \mathrm{I} 3 \mathrm{HI}, 324 \mathrm{HI}, 328 \mathrm{HI}$; JAG32IHI; UNI 460 YI ; PHL $273 \mathrm{HI}, 373 \mathrm{HI}$; POL 346 HI , $347 \mathrm{YI}, 4 \mathrm{I} 3 \mathrm{HI}$; RLG $228 \mathrm{HI}, 3 \mathrm{IIHI}, 345 \mathrm{HI}, 484 \mathrm{HI}$; SOC 385 HI ; UNI260YI, 360YI; other approved courses*

Group D (Life \& Physical Science):
EEB/BIO $30 \mathrm{IH}, 302 \mathrm{HI}, 303 \mathrm{HI}, 305 \mathrm{HI}, 306 \mathrm{HI}, 307 \mathrm{HI}, 308 \mathrm{HI}$, $3 \mathrm{I} 9 \mathrm{HI}, 32 \mathrm{IHI}, 328 \mathrm{HI}, 365 \mathrm{HI}, 428 \mathrm{HI}, 440 \mathrm{HI}, 465 \mathrm{HI}, 468 \mathrm{HI}$, $469 \mathrm{HI}, 47 \mathrm{IHI}, 495 \mathrm{YI}, 496 \mathrm{YI} ; \mathrm{CHM} 3 \mathrm{IOHI}, 409 \mathrm{YI}, 4 \mathrm{IOHI}$, $415 \mathrm{HI} ;$ FOR $200 \mathrm{HI}, 20 \mathrm{IHI}, 300 \mathrm{HI}, 30 \mathrm{IHI}, 400 \mathrm{YI}, 40 \mathrm{IHI}$, $4 \mathrm{I} 2 \mathrm{HI}, 4 \mathrm{I} 3 \mathrm{HI}, 4 \mathrm{I} 6 \mathrm{HI} ; G \mathrm{GR} 303 \mathrm{HI}, 305 \mathrm{HI}, 307 \mathrm{HI}, 3 \mathrm{IOHI}$, $333 \mathrm{HI}, 373 \mathrm{HI}, 403 \mathrm{HI}, 409 \mathrm{HI}, 4 \mathrm{I} 3 \mathrm{HI}, 462 \mathrm{HI}$; GLG 35 IHI , $436 \mathrm{HI}, 450 \mathrm{HI} ;$ JFG $470 \mathrm{HI}, 475 \mathrm{HI} ;$ PCL $362 \mathrm{HI}, 473 \mathrm{YI}, 474 \mathrm{YI}$, $48 \mathrm{IHI} ;$ PSY 335 HI ; EEB/ZOO $265 \mathrm{YI}, 304 \mathrm{HI}, 309 \mathrm{YI}, 373 \mathrm{HI}$, 375 HI ; other approved courses*

## *NOTE:

Some courses offered by other Faculties or at the University of Toronto Mississauga or Scarborough may be eligible for inclusion in Groups $C$ and $D$ above.

## Interfaculty Combination: Environmental Policy and Practice (Specialist, Major) and International Development Studies (Major) (Arts program)

Consult the Undergraduate Student Advisor, David Powell (416-946-8100 or david.powell@utoronto.ca).
This is a limited enrolment combination. Students already enrolled in the Environmental Policy and Practice Specialist or Major may ballot for the International Development Studies (IDS) Major. Note: St. George students cannot enroll in the IDS major without first enrolling in the Environmental Policy and Practice Major or Specialist; nor can they get academic credit for the IDS major without successfully completing the Environmental Policy and Practice Major or Specialist.
Students enrolled in the Faculty of Arts and Science at the St. George Campus who wish to complete the interfaculty combination, must concurrently complete all requirements for the Environmental Policy and Practice Specialist or Major program outlined above. In addition, they must fulfill the requirements of the International Development Studies Major program or its equivalent as outlined below (for details, consult the University of Toronto Scarborough Calendar for 2007-08 (www.University of Toronto Scarborough.utoronto. ca) and Professor John Miron, Acting Supervisor International Development Studies (4I6-287-7287 or socscichair@University of Toronto Scarborough.utoronto.ca).

## SECTION I:

Students must take all 3.5 full-course equivalents:
ECMA0IH3 Introduction to Microeconomics, ECMA05H3
Introduction to Macroeconomics or ECOIOOYI/IO5YI EESAOIH3 Introduction to Environmental Science or ENV200YI
IDSBOIH3 International Development Studies: Political Economy
IDSBO2H3 International Development Studies:
Development and Environment
POLB90H3 Comparative Development in International Perspective, POLB9IH3 Comparative Development in
Political Perspective, or POL20IYI

## SECTION II:

Students must take 4.5 full course equivalents,* with at least one full credit, from two of the following groups (see courses listed under each of these groups in the Scarborough 2007-08 Calendar):
A. Social/Cultural Perspectives
B. Policy Perspectives
C. Environmental Perspectives

* Students may substitute equivalent courses given in the Faculty of Arts and Science on the St. George Campus, but must get permission of the International Development Studies Supervisor.


## Earth Systems: Physics \& Environment (Science program)

Jointly sponsored by the Department of Physics, this program focuses on the solid earth, the oceans and the atmosphere at planetary scales emphasizing the Earth as a unified, dynamic system. Consult David Powell, Undergraduate Student Advisor, Centre for Environment, Room 1049A, Earth Sciences Centre, 4I6-946-8I00 or david.powell@utoronto.ca, or Dr. D. Bailey, Department of Physics, Room 328, McLellan Physical Labs, 416-978-6674.

## Centre for Environment

## Specialist program:

(16 full courses or their equivalent which includes fulfillment of the Faculty's Distribution requirements ; must include at least four $300+$-series courses, one of which must be at the 400 level)

This is a Type 2 program requiring a minimum CGPA of 2.3.
The student must complete four courses from the First Year list before enrolling in the program. Information on application and acceptance timelines is available in the Registration Handbook and Timetable. For more information, please refer to http://www.environment.utoronto.ca/UndergraduatePrograms/ ApplicationProcedures/ApplicationProcedures.
First Year:
CHM (I38HI, I39HI)/I5IYI; BIO I50YI; MAT I35YI/I37YI; PHY I38YI/I40YI (I40Y recommended)
Second Year:
JGE22IYI/JIE 222YI; MAT 235YI/237YI, 244HI; PHY 25IHI, 255 HI
Third Year:
APM 346HI; ENV 234YI, 235YI, 32 IYI ; PHY $35 \mathrm{IHI}, 352 \mathrm{HI}$
Third and Fourth Years:
I. ENV $4 \mathrm{IOHI} / \mathrm{JIE} 4 \mathrm{IOHI}, \mathrm{ENV} 42 \mathrm{IHI}$
2. Three FCE from: PHY $305 \mathrm{HI} / 307 \mathrm{HI} / 308 \mathrm{HI} / 3 \mathrm{I} 5 \mathrm{HI} /$ $326 \mathrm{HI} / 346 \mathrm{HI} / 359 \mathrm{HI} / 407 \mathrm{HI} / 408 \mathrm{HI} / 426 \mathrm{HI} / 478 \mathrm{HI} / 479 \mathrm{YI} /$ $493 \mathrm{HI} / 494 \mathrm{HI} / \mathrm{JGP} 438 \mathrm{HI}$ or any other PHY4XXH course. At least one FCE must be from the fourth year Physics options

## Environmental Chemistry (Science program)

Jointly sponsored by the Centre for Environment and the Department of Chemistry, this program focuses on the development of a fundamental background in chemistry as applied to understanding the chemical impacts of humankind's activities on the soil, air, and water. Emphasis is given to developing analytical skills and mechanistic understanding of the subject.

Enrolment in this program is limited. It requires prior completion of 4 courses with a minimum GPA of 2.3. Three courses must be from the First Year list. Apply through the Centre for Environment by: Ist Round:TBA; 2nd Round:TBA at: www.artsci.utoronto.ca/current/undergraduate

## Specialist program:

(13.5 full courses or their equivalent, including at least one 400series course)
Jointly sponsored by the Centre for Environment and the Department of Chemistry, this program focuses on analytical theory, instrumentation and methodological aspects of organic and inorganic contaminants in soil, water, air and biological tissues.
First Year: BIO I50YI; (CHM I5IYI strongly recommended)/ (I38HI, I39HI); MAT I $35 \mathrm{YI/I37YI;} \mathrm{PHY} \mathrm{I} 38 \mathrm{YI} / / 40 \mathrm{Y}$ I
Second Year: CHM $2 \mathrm{I} 7 \mathrm{HI}, 225 \mathrm{YI} /(220 \mathrm{HI}, 22 \mathrm{IHI}), 238 \mathrm{YI}$, 247HI/249HI (CHM249HI strongly recommended); ENV 235YI
Third and Fourth Years:
I. CHM 3IOHI, 4IOHI, 4I5HI; ENV 234YI, ENV32IYI/(JGE $22 \mathrm{IYI} / J \mathrm{IE} 222 \mathrm{YI})$
2. One additional FCE from 300/400-series CHM courses
3. (JIE $4 \mathrm{IOHI}, \mathrm{ENV} 42 \mathrm{IHI}) / \mathrm{CHM} 409 \mathrm{YI} / 4 \mathrm{I} 8 \mathrm{YI} / 428 \mathrm{YI} /$ 439YI*/449YI
*CHM 439YI has the prerequisite CHM 438HI.

## Environmental Geosciences (Science program)

Jointly sponsored by the Centre for Environment and the Department of Geology. Topics include earth materials, sedimentary geology, aqueous geochemistry, hydrogeology and biogeochemistry. For more information, please contact David Powell, Undergraduate Student Advisor, Centre for Environment, Room 1049A, Earth Sciences Centre, 4I6-946-8I00 or david. powell@utoronto.ca, or Professor J. Mungall, Department of Geology, mungall@geology.utoronto.ca Students should note that under the Professional Geoscientists Act of 2000, individuals practising Environmental Geoscience in Ontario require education equivalent to the Specialist Program listed below or a P.Eng.

## Specialist program:

( 16 full courses or their equivalent which includes fulfillment of the Faculty's Distribution requirement ; must include at least four 300+-series courses, one of which must be at the 400level)

This is a Type 2 program requiring a minimum CGPA of 2.3.
The student must complete four courses from the First Year list before enroling in the program. Information on application and acceptance timelines is available in the Registration Handbook and Timetable. For more information, please refer to http://www.environment.utoronto.ca/UndergraduatePrograms/ ApplicationProcedures/ApplicationProcedures.
First Year:
Students must complete BIO I50YI; CHM (I38HI/I39HI)/ I5IYI; MAT I35YI/I37YI; PHY I38YI/I40YI
Second Year:
GLG $202 \mathrm{HI}, 206 \mathrm{HI}, 207 \mathrm{HI}, 216 \mathrm{HI}$, (ENV 234YI/GLG2I7HI, EEB2I4HI); MAT $235 \mathrm{YI} /($ MAT 223 HI, GLG 204 HI$)$, STA220HI
Third and Fourth Years:
I. GLG $345 \mathrm{H}, 35 \mathrm{IHI}, 360 \mathrm{HI}, 436 \mathrm{HI}, 448 \mathrm{HI}, 450 \mathrm{HI}$; JGE22IYI/JIE222YI, ENV $235 \mathrm{YI}, 3 \mathrm{I} 5 \mathrm{HI}, 32 \mathrm{IYI}$
2. ENV $410 \mathrm{HI} / \mathrm{JIE} 40 \mathrm{IHI} ; \mathrm{ENV} 42 \mathrm{IHI} / \mathrm{GLG} 47 \mathrm{IHI}$

Note: GLG 340 HI is recommended but not required for this specialist program.
Major program:
( 8.5 full courses or their equivalent; must include at least two full-course equivalents at the 300+-level)
First Year:
CHM (I38HI, I 39 HI )/I5IYI; MAT I35YI/I37YI; PHY I38YI/I40YI
Second Year:
ENV 235YI; GLG $202 \mathrm{HI}, 206 \mathrm{HI}, 207 \mathrm{HI}, 2 \mathrm{I} 6 \mathrm{HI}, 2 \mathrm{I} 7 \mathrm{HI}$
Third and Fourth Years:
ENV 3 I 5 HI ; GLG $35 \mathrm{IHI}, 436 \mathrm{HI}, 448 \mathrm{HI}$

## Environment \& Health (Science program)

Jointly sponsored by New College, the Human Biology Program, and the Basic Medical Science Departments of the Faculty of Medicine. Provides a basic understanding of the behaviour of Planet Earth, the workings of the human body, and the complex relationships between the two. Consult David Powell, Undergraduate Student Advisor, Centre for Environment, Room 1049A, Earth Sciences Centre, 416-946-8I00 or david.powell@ utoronto.ca, or Office of the Registrar, New College, 300 Huron Street, 4I6-978-2460.

## Centre for Environment

## Specialist program:

(14.5 full courses or their equivalent which includes fulfillment of the Faculty's Distribution requirements; must include at least four $300+$-series courses, one of which must be at the 400 level)

This is a Type 2 program requiring a minimum CGPA of 2.3.
The student must complete four courses, including three from the First Year list below before enroling in the program. Information on application and acceptance timelines is available in the Registration Handbook and Timetable. For more information, please refer to http://www.environment. utoronto.ca/UndergraduatePrograms/ApplicationProcedures/ ApplicationProcedures.

First Year:
Students must complete BIO I50YI; CHM (I38HI, I39HI)/ I5IY and one of GGR IOOYI; MAT I35YI/I37YI/I57YI/ JMB I70YI; PHY IIOYI/I38YI/I40YI (PHY I38YI recommended); PSYIOOHI. *Students are encouraged to select an FCE from ANT/ECO/GGR/HIS/SOC to maximize elective course choice in later years.
Second Year*:
(BCH $210 \mathrm{HI}, \mathrm{CHM} 247 \mathrm{HI}$ ); BIO 250YI/255YI; JGE22IYI/JIE 222YI; ENV 234YI/(235YI/236YI)**; PHL 273HI; BIO $260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}$
Third Year*:
CSB/BIO 349HI/JLM 349HI/LMB 363HI/NFS 284HI/PSL 302YI; ENV 32IYI; the other of ENV 234YI/(235YI/ 236 YI )**; (STA $220 \mathrm{HI}, 22 \mathrm{IHI} / \mathrm{BIO} 225 \mathrm{HI})$
Fourth Year:
I. ENV $410 \mathrm{HI} / \mathrm{JIE} 4 \mathrm{IOHI}$
2. ENV 42 IHI or a minimum of 0.5 FCE from any approved departmental or college independent research project
3. Two FCE, approved by the Undergraduate Student Advisor of the Centre, including at least one 300 -series course from ANA/ANT/BCH/(CSB/BIO)/(EEB/BIO)/(CSB/BOT)/(EEB/ BOT)/CHM/HMB/IMM/JBI/JZM/LMP/MBY/NFS/PCL/(CSB/ ZOO)/(EEB/ZOO)/ECO 369YI/ENV 34IHI/(GGR 409HI, $450 \mathrm{HI}, 45 \mathrm{IHI}) /(\mathrm{HIS} 460 \mathrm{HI}, 463 \mathrm{HI}) / \mathrm{NEW} 367 \mathrm{HI} /(\mathrm{SOC}$ $242 \mathrm{YI} /(243 \mathrm{HI}, 244 \mathrm{HI}) / 255 \mathrm{YI} /(256 \mathrm{HI}, 257 \mathrm{HI}) / 309 \mathrm{YI} /$ $3 \mathrm{I} 2 \mathrm{YI} / 363 \mathrm{HI}$ ) or any other approved course for which the student has appropriate prerequisites. The two FCE should reflect the particular academic interests of each student.

## Notes:

I. * Some second and third year courses in this program have specific prerequisites. Students should check prerequisites for the higher level courses they are interested in prior to making first year course selections
2. ** In choosing between ENV 235 YI and ENV 236YI, students should pay particular attention to their respective prerequisites

## Past Environments (Science program)

A multi-disciplinary program focused on the changing nature of the relationship between the environment and humans over the past 2 million years. Co-sponsored by the Centre, the Department of Anthropology, and the Program in Archaeology. Consult David Powell, Undergraduate Student Advisor, Centre for Environment, Room I049A, Earth Sciences Centre, 416-9468100 or david.powell@utoronto.ca, or Undergraduate Program Administrator/Student Counsellor, Department of Anthropology, Room I030, Sidney Smith Hall, 4I6-978-64I4.

## Specialist program:

(15 full courses or their equivalent which includes fulfillment of the Faculty's Distribution requirements; must include at least four $300+$-series courses, one of which must be at the 400 level)

This is a Type 2 program requiring a minimum CGPA of 2.3. The student must complete four courses from the First Year list. Information on application and acceptance timelines is available in the Registration Handbook and Timetable. For more information, please refer to http://www.environment. utoronto.ca/UndergraduatePrograms/ApplicationProcedures/ ApplicationProcedures.
First Year:
ANT I00YI; BIO I50YI; MAT I35YI/I37YI/I57YI/JMB I70YI; GGR IOOYI
Second Year:
I. ANT 200YI; JGE22IYI/JIE 222YI
2. One FCE from: GGR $20 \mathrm{IHI} / 203 \mathrm{HI} / 205 \mathrm{HI} / 206 \mathrm{HI}$
3. One FCE from: ENV $234 \mathrm{Y} / / 236 \mathrm{Y}$ I

Third and Fourth Years:
I. ANT 203YI, 31 IYI/(ARH36IHI and 0.5 FCE 400 -level course from Group A of Archaeology Calendar entry on page 64);ARH 305 HI ; ENV 32 IYI
2. The other of ENV $234 \mathrm{YI} / 236 \mathrm{YI}$; GGR $302 \mathrm{HI} / \mathrm{GLG} 436 \mathrm{HI}$
3. One FCE from:ANT $409 \mathrm{HI} / 4 \mathrm{IOHI} / 434 \mathrm{HI} / 436 \mathrm{HI} / 47 \mathrm{IHI}$;
4. ENV $4 \mathrm{IOHI} / \mathrm{ILE} 4 \mathrm{IOHI}$, ENV $42 \mathrm{IHI} / \mathrm{ANT} 4 \mathrm{I} 5 \mathrm{YI} / 497 \mathrm{YI} /$ $498 \mathrm{HI} / 499 \mathrm{HI}$

## Environment \& Toxicology (Science program)

Toxicology is the study of the harmful effects of chemicals. The Environment and Toxicology program examines the adverse effects of chemicals at the ecological level. This program prepares students for advanced graduate study and research in environmental toxicology, and for consultative positions in governmental agencies and industry. Students interested in biomedical toxicology (the adverse effects of chemicals on human health) should consider enrolling in the Specialist Program in Toxicology offered by the Department of Pharmacology. Consult David Powell, Undergraduate Student Advisor, Centre for Environment, Room I049A, Earth Sciences Centre, 416-946-8100 or david.powell@utoronto.ca, or Dr. C. Woodland, Department of Pharmacology, Medical Sciences Building, 4I6-946-3I02

## Specialist program:

(I5 full courses or their equivalent which includes fulfillment of the Faculty's Distribution requirements; must include at least four 300+-series courses, one of which must be at the 400level)

This is a Type 2 program requiring a minimum CGPA of 2.3. The student must complete four courses from the First Year list before enroling in the program. Information on application and acceptance timelines is available in the Registration Handbook and Timetable. For more information, please refer to http://www.environment.utoronto.ca/UndergraduatePrograms/ ApplicationProcedures/ApplicationProcedures.

## Centre for Environment

## (Program enrolment in 2005 and after)

First Year:
Students must complete BIO I50YI; CHM (I38HI, I39HI)/
I5IYI and at least two of GGR IOOYI; MAT I35YI/I37YI/ I57YI/JMB I70YI; PHY IIOYI/I38YI/I40YI (PHY I38YI
recommended). In selecting courses, students should consider prerequisites for courses they intend to take later.
Second Year:
I. BCH 2IOHI/BCH 242YI; BIO 250YI/255YI;JGE22IYI/JIE 222YI; CSB/ZOO 252YI/PSL 20IYI/PSL 302YI; PCL 201 HI
2. $\mathrm{CHM} 2 \mathrm{I} 7 \mathrm{HI} / 220 \mathrm{HI}, \mathrm{CHM} 247 \mathrm{HI} / 249 \mathrm{HI}$

Third and Fourth Years:
I. ENV $234 \mathrm{YI} / 235 \mathrm{YI} / 236 \mathrm{YI}, 32 \mathrm{Y} \mathrm{I}$
2. PCL $302 \mathrm{HI}, 362 \mathrm{HI} ; \mathrm{PCL} 376 \mathrm{HI} / \mathrm{STA} 220 \mathrm{HI} / \mathrm{STA} 22 \mathrm{IHI} /$ BIO225HI (see NOTE I, below)
3. CHM 3IOHI/GGR 409HI/PCL 470YI/48IHI/LMP 30IHI/363HI (see NOTE 2, below)
4. PCL 473 YI
5. (ENV 4IOHI/JIE4IOHI, ENV 42IHI)/PCL 474YI (see NOTE 3, below)

## (Program enrolment in 2004 and earlier)

## First Year:

Students must complete BIO I50YI and at least three of CHM (I38HI, I39HI)/I5IYI; GGR I00YI; MAT I35YI/I37YI/ 157YI/JMB I70YI; PHY IIOYI/I38YI/I40YI (PHY I38YI recommended). In selecting 100 -series courses, students should consider prerequisites for courses they intend to take later, i.e., ENV $235 \mathrm{Y} \mathrm{I} / 236 \mathrm{Y}$ I.
Second Year:
I. BIO 250YI/255YI; ENV 22IYI/JIE 222YI; CSB/ZOO 252YI/PSL 20IYI/PSL 302YI
2. CHM 220HI, PCL 376HI/STA 220HI/ STA 22IHI/ BIO225HI (see NOTE I, below)
Third and Fourth Years:
I. (BCH $3 \mathrm{IOHI}, \mathrm{JLM} 349 \mathrm{HI} / \mathrm{CSB} / \mathrm{BIO} 349 \mathrm{HI}) / \mathrm{BCH}$ $242 \mathrm{YI} /(\mathrm{BCH} 210 \mathrm{HI}, \mathrm{PCL} 201 \mathrm{HI}) ;$ ENV 32 YYI
2. PCL $302 \mathrm{HI}, 362 \mathrm{HI}$; and one of ENV $234 \mathrm{YI} /(235 \mathrm{YI} / 236 \mathrm{YI})$
3. CHM 3 IOHI/GGR $409 \mathrm{HI} / \mathrm{PCL} 470 \mathrm{YI} / 48 \mathrm{IHI} / \mathrm{LMP}(30 \mathrm{IHI} /$ 363HI) (See NOTE 2, below)
4. PCL 473 YI
5. The other of ENV $234 \mathrm{YI} /(235 \mathrm{YI} / 236 \mathrm{YI})$, (ENV $4 \mathrm{IOHI} /$ JIE4IOHI, ENV 42IHI)/PCL 474YI(See NOTE 3, below)

## Notes:

I. PCL 376 HI is a pre- or co-requisite for students intending to take PCL 474 YI . Students taking PCL 474 YI must also take PCL 201H and PCL 302 YI as prerequisites.
2. Students taking PCL48IHI must take BCH $210 \mathrm{HI}, \mathrm{LMP}$ 363 HI , and PCL 362 HI as prerequisites.
3. Students intending to take PCL 474 YI instead of (ENV $410 \mathrm{HI} / \mathrm{JIE} 4 \mathrm{I} 0 \mathrm{HI}, \mathrm{ENV} 42 \mathrm{IHI}$ ) must obtain permission from the Undergraduate Student Advisor of the Centre for Environment 3 months prior to the intended date of enrolment in PCL 474YI. Students must also consult with the Department of Pharmacology at least 3 months prior to the intended date of enrolment as the student is responsible for arranging for a supervisor.

## Environmental Ethics (Arts program)

Jointly sponsored by the Centre for Environment and the Department of Philosophy, this program explores how value judgements and worldviews affect environmental decision making. For more information, contact David Powell, Undergraduate Student Advisor, Centre for Environment, Earth Science Centre, Rm. 1049A (4I6-946-8I00, or david.powell@ utoronto.ca).

## Major program:

(6.0-6.5 full courses or their equivalent)

This Type 2 program requires a minimum CGPA of 2.0.
I. One of JGE22IYI/JIE222YI
2. ENV 32 IYI
3. PHL 273HI
4. One FCE from PHL 373 HI , ENV $332 \mathrm{HI}, 333 \mathrm{HI}$
5. ENV $49 \mathrm{IYI} / 492 \mathrm{HI}, 493 \mathrm{HI} / 4 \mathrm{I} 0 \mathrm{HI}, 42 \mathrm{IHI}$
6. I. 5 FCE's from Group A.

## Group A:

ABS 402HI
ECO I05YI
ENV 335HI
ENV 424H
ENV 442HI
ENV 447H
FOR 302HI
HIS3I8YI
HPS 202HI
HPS 307HI
JAG 32IHI
PHL 275HI
PHL 295HI
PHL 375HI
PHL 394HI
PHL 395HI
PHL 4I3HI
PSY 335HI
RLG 228HI
RLG 31IHI
RLG 345HI

> Traditional Indigenous Ecological Knowledge Principles of Economics for Non-Specialists Environmental Design
> Environment and Community Engagement Corporate Perspectives on the Environment The Power of Economic Ideas Societal Values and Forest Management Canadian Environmental History Technology in the Modern World History of Energy Aboriginal People \& Environmental Issues in Canada
> Introduction to Ethics
> Business Ethics
> Ethics
> Markets and Morals
> Issues in Business Ethics
> Seminar in Applied Ethics
> Environmental Psychology
> Religious Ethics: the Environment
> World Religions and Ecology
> Social Ecology and Judaism

Minor program:
(4 full courses or their equivalent; must include at least one fullcourse equivalent at the 300+-level)

PHL273HI
PHL373HI
JGE22IYI/JIE222YI
4. Two additional FCE's in PHL, with at least one half course at the $300+$ level. It is recommended that one course be in the History of Philosophy and the other in the Problems of Philosophy, including one half-course in ethics.

## Directed Environmental Minors

## Environmental Anthropology (Arts program)

A program focused on understanding the diverse nature of interactions between humans and their environments, both in the past and in modern global society. Consult the Undergraduate Office, Department of Anthropology (4I6-97864I4), Sidney Smith Hall, Rm. 1030

## Centre for Environment

## Minor program:

(4 full courses or their equivalent; must include at least one fullcourse equivalent at the 300+-level)
I. ANT I00YI/JGE 22IYI/JIE 222YI
2. ANT $200 \mathrm{YI} / 204 \mathrm{Y}$ I
3. Two FCE's from:ABS $250 \mathrm{HI} / 402 \mathrm{HI} ; \mathrm{ANT} 3 \mathrm{I} 5 \mathrm{HI} / 333 \mathrm{YI} /$ $349 \mathrm{HI} / 364 \mathrm{YI} / 365 \mathrm{YI} / 420 \mathrm{HI} / 429 \mathrm{YI} / 450 \mathrm{HI} / 453 \mathrm{HI} / 47 \mathrm{IHI}$

## Environmental Biology (Science program)

Consult the Undergraduate Office in the Department of Ecology and Evolutionary Biology

## Minor program:

(4 full courses or their equivalent; must include at least one fullcourse equivalent at the $300+$-level)
I. BIO I50YI; ENV 234YI
2. Two FCE's from: EEB/BIO $3 \mathrm{I} 9 \mathrm{HI}, 32 \mathrm{IHI}, 323 \mathrm{HI}, 324 \mathrm{HI}$, $328 \mathrm{HI}, 362 \mathrm{HI}, 365 \mathrm{HI}, 370 \mathrm{HI}$; EEB/ZOO 322 HI (a course in ecology and a course is evolution are recommended)

## Environmental Chemistry (Science program)

Environmental chemistry is the study of the chemical impacts of humankind's activities on the soil, air, and water. This minor provides a balanced fundamental background in chemistry as well as an introduction to the major issues associated with environmental chemistry.
Contact Professor J.Abbatt, Department of Chemistry (4I6-9467358)

## Minor program:

(4 full courses or their equivalent; must include at least one fullcourse equivalent at the $300+$-level)

I CHM (I38HI,I39HI)/I5IYI
2. One full course equivalent from $\mathrm{CHM} 2 \mathrm{I} 7 \mathrm{HI},(220 \mathrm{HI}$, $22 \mathrm{IHI}) / 225 \mathrm{YI}, 238 \mathrm{YI}, 247 \mathrm{HI} / 249 \mathrm{HI}$
3. ENV235Y
4. Any two of $\mathrm{CHM} 3 \mathrm{IOHI}, 4 \mathrm{IOHI}, 4 \mathrm{I} 5 \mathrm{HI}$

## Environmental Economics (Arts program)

Consult Ms. R. Innes, Undergraduate Administrator, Department of Economics (4I6-978-86I6)
Enrolment in the Environmental Economics Minor program is limited to students with $67 \%$ in ECO IOOYI or $80 \%$ in ECO IO5YI, who have completed MAT I33YI/I35YI/I37YI, and who have a CGPA of 2.0.

## Minor program:

(4 full courses or their equivalent)

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ECO I00YI/I05YI
MAT I33YI/I35YI/I37YI
ECO 200YI/206YI
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4. One full ECO course at the 300+ level, including at least one of ECO 3 I 3 HI and/or ECO 3 I 4 HI

## Note:

Students enrolled in this Minor program cannot be enrolled in the Minor program in Economics or the Minor program in Economic History.

## Environmental Geosciences (Science program)

Consult Professor J. Mungall, Department of Geology (mungall@ geology.utoronto.ca)

## Minor program:

(4 full courses or their equivalent; must include at least one fullcourse equivalent at the $300+$-level)
I. ENV 235 Y I
2. GLG $202 \mathrm{HI}, 206 \mathrm{HI}, 207 \mathrm{HI}, 2 \mathrm{I} 6 \mathrm{HI}, 35 \mathrm{IHI} ;$ ENV 3 I 5 HI

## Geographic Information Systems (Arts program)

GIS is the analysis and management of spatial data. It focuses on the mapping, modeling, and monitoring of the earth's surface, its resources, and its natural and socio-economic processes. Consult Susan Calanza, Department of Geography (416-978-6455)

## Note:

Students combining this program with a Specialist/Major sponsored by the Department of Geography will normally be allowed to count only I.5 (of the 4.0) credits towards both programs.

## Minor program:

(4 full courses or their equivalent; must include at least one fullcourse equivalent at the 300+-level)
I. GGR I00YI/I07YI/I24YI
2. GGR $270 \mathrm{HI}, 272 \mathrm{HI}, 273 \mathrm{HI}, 373 \mathrm{HI},(462 \mathrm{HI} / 473 \mathrm{HI})$
3. Another half GGR course from Group B (see Geography, at the end of its program listings).

## Life, Environment and General Physics (Science program)

Basic understanding of physics for students focusing their academic studies in Life Sciences and/or the Environment. Consult Physics Undergraduate Office, Room MP30I (4I6-978-7057/4I6-978-6674)

## Minor program:

(4 full courses or their equivalent; must include at least one fullcourse equivalent at the 300+-level)
I. MAT I35YI/I37YI; PHY I $38 \mathrm{YI} / \mathrm{I} 40 \mathrm{Y}$ I
2. ENV $235 \mathrm{YI} / \mathrm{PHY} 238 \mathrm{YI}$ or any other I full course equivalent from PHY courses at the 200+ level
3. One full course or equivalent from: $\mathrm{CSB} / \mathrm{BIO} 472 \mathrm{HI} / \mathrm{JPA}$ $305 \mathrm{HI} / 3 \mathrm{IOHI} / J G P 438 \mathrm{HI} / \mathrm{PHY} 3 \mathrm{I} 5 \mathrm{HI} / 346 \mathrm{HI} / 445 \mathrm{HI}$ or any other PHY300+ course. JBO302Y may count as 0.5 FCE towards this requirement.

## Physical and Environmental Geography (Science program)

Consult Susan Calanza, Department of Geography (4I6-978-6455)
Note:
Students combining this program with a Specialist/Major sponsored by the Department of Geography will normally be allowed to count only 1.5 (of the 4.0 ) credits towards both programs.

## Minor program:

(4 full courses or their equivalent; must include at least one fullcourse equivalent at the $300+$-level)

GGR I00YI
2. One full course or equivalent from: GGR $201 \mathrm{HI} / 203 \mathrm{HI} /$ $205 \mathrm{HI} / 206 \mathrm{HI}$
3. GGR $390 \mathrm{HI},(30 \mathrm{IHI} / 302 \mathrm{HI} / 305 \mathrm{HI}),(272 \mathrm{HI} / 307 \mathrm{HI} / 3 \mathrm{I} 0 \mathrm{HI} /$ $312 \mathrm{HI})$
4. A half-course from Group $C$ in the Geography listings of the Calendar

## Centre for Environment

## Environment Courses

See page 33 for Key to Course Descriptions
To find ENV course categories For Distribution Requirement purposes (see page 27), see entry at end of each course.

NOTE: Many ENV courses are limited in enrolment and require specific prerequisites. Preference is given to students meeting the ROSI deadlines.

## ENV200YI Assessing Global Change: 52L, I2T

 Science and the EnvironmentThe perspective scientists bring to the understanding and resolution of environmental concerns having global implications: atmospheric systems and climate change, the biosphere and conservation of biodiversity.
Exclusion: BIOI50YI (applies only to students in Arts \& Science) This Science course is intended to fulfill the environmental literacy requirement for students in the BA programs of the Centre for Environment or the science distribution course requirement for Commerce, Humanities and Social Science students.

## JGE22IYI Environment and 52L, 5P, IOT

 Sustainable DevelopmentThe foundation for students in the Centre for Environment programs and the Environment and Resource Management Program in Geography, this course addresses social, ethical and biophysical dimensions of problems in sustainable development, the need for environmental action, and some tools that lead to solutions. Draws from relevant interdisciplinary domains in an examination of environmental degradation, the responses of various actors and models for a more sustainable future. The environmental issues given special consideration vary from year to year.
Exclusion: JIE 222YI/GGR 233YI
Recommended Preparation: GGR IOOYI/I07YI
This is a social science course.

## ENV223HI Fundamental Environmental 26L, I3T Skills (formerly INI223HI)

The practical, interdisciplinary and controversial nature of environmental issues, as well as the uncertainty that surrounds measures to address them demand mastery of a particular range of skills by environmental students. This course teaches the fundamental research, analysis and presentation skills required for effective environmental work.
Co-requisite: JGE22 IYI and enrolment in a Centre Major program,
or permission of Undergraduate Student Advisor.
Exclusion: INI 223HI
This is a Social Science course.

## ENV234YI Environmental Biology 52L, 39P

A broad-based science course drawing on elements from geology, systematics, soil science, and ecology to understand past and present environments and how humans are altering the environment. Emphasis is placed on examination of ecological phenomena in relation to population, community and ecosystem processes with particular reference to the biomes of Ontario. Descriptive and experimental laboratory studies including a weekend field trip (total cost about \$15.00). (Provided by the Department of Ecology and Evolutionary Biology, Department of Geology, and the Faculty of Forestry).
Prerequisite: BIOI50YI (recommended) or GGRIOOYI
This is a Science course.

## ENV235YI Physics and Chemistry of 52L, 26T Planet Earth

This course considers the fundamental chemical and physical processes of the Earth's natural environment. One semester of the course focuses primarily on the atmosphere: its evolution, structure, composition and dynamic character. Particular emphasis is given to a discussion of global climate and the underlying physical, chemical and biogeochemical factors that drive climate change. Within this context, stratospheric ozone depletion, ocean chemistry, urban air pollution, acid rain and water quality are also discussed. The other semester focuses on the solid Earth: its formulation and evolution, internal dynamics, mantle-core differentiation, volcanism, tectonics and paleoclimate/ice ages. Throughout the course, the operation of the Earth as a coupled physico-chemical system over a range of timescales is emphasized.
Prerequisite: CHM (I38HI, I39HI)/I5IYI/I57YI, MATI35YI/
I37YI/JMBI70YI, PHYI38YI/I40YI
This is a Science course.

## ENV236YI Human Interactions with 52L

 the EnvironmentA course emphasizing both the role of the environment in shaping human behaviour, and the impact of humans on the environment. Coverage includes human biological and cultural evolution, environmental and climatic obstacles over come by early civilizations, and human impacts on marine and terrestrial ecosystem processes. Topics may vary from year-to-year depending upon instructor interests and research specialty.
Prerequisite: BIOI50YI/GGRIOOYI or permission of instructor This is a Science course.

## ENV299YI Research Opportunity Program <br> Credit course for supervised participation in faculty research project. See page 47 for details.

## JIE307YI Urban Sustainability <br> 52L, 26P

(formerly INI307YI)
This course critically examines the concept of urban sustainability in theory and application. Case studies of ongoing urban sustainability programs in the developed world help students assess the successes and failures of these programs. The course also examines the current state of research and implementation efforts toward urban sustainability.
Prerequisite: One of the following: JGE22IYI/JIE222YI and enrolment in a Centre program OR INI235YI OR permission of the instructor (particularly for students who have completed
JGE22IYI/GGR233YI/POL209YI/SOC 205YI/260YI)
Exclusion: INI 307YI
This is a Social Science course.
ENV3I5HI 26L, 39P

Instrumental analysis techniques for environmental scientists of all disciplines. In addition to a solid grounding in the theory of each analytical technique, particular emphasis is placed on the laboratory work, which is worth $50 \%$ of the final grade. In each lab, groups of two students receive instruction from an experienced analyst and acquire hands-on experience using state-of-the-art analytical equipment. Where possible, samples supplied by the students are analyzed. Techniques covered include Neutron Activation, X-ray Fluorescence, X-ray Diffraction, Scanning Electron Microscopy, Gas Chromatography, Ion Chromatography, Atomic Absorption, Inductively Coupled Plasma Optical Emission Spectrometry and Inductively Coupled Plasma Mass Spectrometry. Exclusion: CHM2I7HI, 3I4YI; GLG335HI
Prerequisite: SCH4U and any second year ENV or GLG courses

## Centre for Environment

This is a Science course

ENV320YI | National and International 52L, 26T |
| :---: |
| Environmental Policy Making |
| (formerly INI 320YI) |

Examination of federal-provincial negotiation of Canadian
contributions to international environmental agreements such as
the UN Framework Convention on Climate Change
Prerequisite: JGE22 IYI/JIE 222YI and enrolment in a Centre
program, or permission of the Undergraduate Student Advisor.
Exclusion: INI 320YI
This is a Social Science course
ENV32 IYI Approaches to $\quad$ 52L, 24T

Environmental Issues
(formerly ENV22IYI)
Diverse approaches to environmental issues from a variety of perspectives are introduced, compared and analyzed, using topical case studies. Perspectives explored in previous years include aboriginal, scientific and psychological
Exclusion: ENV22IYI
Prerequisite: a minimum CGPA of 2.0
Recommended preparation: JGE22 IYI/JIE222YI/GGR233YI
This is classified as BOTH a Social Sciences and a Humanities course.

## ENV332HI Culture and Nature

(formerly INI332HI)
Critical analysis of western attitudes and values respecting nature, as found in various art and popular culture genres; significance for action on the ecological crisis.
Prerequisite: a minimum CGPA of 2.3
Recommended preparation: JGE22 IYI/JIE222YI/GGR233YI
Exclusion: INI332HI
This is classified as BOTH a Social Sciences and a Humanities course.
ENV333HI Ecological Worldviews 26S (formerly INI333HI)
Approaches to environmental concerns are often marked by assumptions that reflect distinct worldviews positing particular understandings of the role of the human with respect to nature. This course explores sundry economic, political, scientific, religious, and moral worldviews pertaining to the environment, including environmental ethics, Gaia, ecofeminism, scientific cosmology, and aboriginal perspectives.
Prerequisite: a minimum CGPA of 2.3
Recommended preparation: JGE22 IYI/JIE222YI/GGR233YI
Exclusion: INI 333HI
This is classified as BOTH a Social Sciences and a Humanities course.

## ENV335HI Environmental Design (formerly INI335HI)

Introduction to understanding the complexity of relationships among people, built forms, and natural systems; systematic review of examples of environmental design at various scales.
Prerequisite: a minimum CGPA of 2.3
Recommended preparation: JGE22 IYI/JIE222YI/GGR233YI
Exclusion: INI 335 HI
This is a Social Science course.

## ENV340HI

## Informed Environmental Practice

26S, I3T
(formerly INI340HI)
This course will prepare students for challenging careers in the environmental field. Students will develop professional and research skills that will assist in the development of a challenging and meaningful career. Emerging social, economic, environmental, and ethical issues in the workplace will be explored.
Prerequisite: Eight full courses or their equivalent and enrolment in
an environmental program at the University of Toronto
Exclusion: INI 340HI
This is a Social Science course.
ENV34IHI
Environment and
Human Health
(formerly INI 341 HI )

26L, I3T
(formerly INI34IHI)
Examination of the linkages between human health and environment. Addresses basic principles and scientific knowledge relating to health and the environment and uses case studies to examine current environmental health issues from a health sciences perspective.
Prerequisite: JGE22IYI/JIE222YI and enrolment in a Centre program, or permission of the Undergraduate Student Advisor
Exclusion: INI 320YI, if taken before the 2003-04 academic year; INI 34IHI
This is classified as BOTH a Social Science and Science course.

## ENV350HI Energy \& Climate Change Policy 26L and Politics

This course explores the central importance of energy and climate change locally and globally, and analyses factors influencing energy policy decisions.
Prerequisite: JGE22IYI/JIE222YI, or permission of undergraduate student advisor
This is a Social Science course.

## ENV395YI Special Topics Field Course $52 S$

This course explores interdisciplinary environmental issues in the field. Project work involves students in investigating, developing and proposing sustainable practices and approaches to topical local problems. Suitable for all CFE programs.
Recommended preparation: ENV200YI or BIOI50YI
This is a Science or Social Science course
ENV398H0/ Independent Experiential Study Project 399Y0
An instructor-supervised group project in an off-campus setting. See page 47 for details.

## ENV4IOHI Environmental Research Skills (formerly JIE4IOHI)

The purpose of this course is to introduce students to the perspectives and methods used for quantitative and qualitative research on humans, done for both academic and professional purposes. The focus is on qualitative research on current environmental issues.
Prerequisite: Enrolment in an environmental program and completion of at least 10 full courses
Co-requisite: ENV420YI/42 IHI/444HI/a recognized alternative Exclusion: JIE4IOHI
This is classified as BOTH a Social Sciences and a Humanities course.

## Centre for Environment

## ENV420YI Environmental Research

 (formerly INI420Y)Advanced environmental research on environmental topics of current relevance, involving information sources and resources outside the University. Students work in teams to investigate and report on a specific environmental issue for an off-campus environmental agency.
Prerequisite: JGE22IYI/JIE222YI; ENV 320YI/32IYI and
enrolment in a Centre program, or permission of instructor Co-requisite: ENV4IOHI if taken as a program requirement Exclusion: INI 420YI
This is a Social Science course.
ENV42IHI Environmental Research
A research course for all students in the Centre combining report writing, independent and group-based research on an interdisciplinary topic. Application of skills learned in ENV4IOHI.
Prerequisite: JGE22IYI/JIE222YI, ENV 320YI/32IYI or permission of the Undergraduate Student Advisor
Corequisite: ENV4IOHI
This is classified as BOTH a Social Sciences and a Humanities course.

ENV422HI Environmental Law
(formerly INI422HI)
An introduction to environmental law for students in Environmental Studies; legal methods available to resolve environmental problems and the scope and limits of those methods; common law and statutory "tools" as well as environmental assessment legislation; the problem of "standing to sue" and the limits of litigation.
Prerequisite: JGE22 IYI/JIE222YI and enrolment in a Centre program, or permission of Undergraduate Student Advisor This is a Social Science course.

## ENV423HI Public Policy and Environment (formerly INI42IHI)

Introduces students to public policy and institutional foundations of public policy in Canada, with an emphasis on environmental policy in Ontario. Provides an "insider's" perspective on how environmental policy has been developed in Ontario.
Prerequisite: JGE22 IYI/JIE222YI and enrolment in a Centre
program, or permission of Undergraduate Student Advisor

## Exclusion: INI 42 IHI

This is a Social Science course.

## ENV424HI Environment and Community Engagement

This course integrates theoretical and practical perspectives on patterns of community engagement in environmental change. Students will address theoretical perspectives on environmentalism as a social movement, and learn about key aspects of planning and implementing environmental change from veteran environmental advocates.
Prerequisite: ENV222YI/JIE 222YI, or permission of undergraduate student advisor
This is a social science course.

## ENV440YI Professional Experience Course (formerly INI440YI)

Regular academic seminars complement off-campus work on an environmental project. The course enables students to gain practical experience of the needs and demands of professional environmental agencies. Students are given a choice of placements in a variety of sectors (such as government, NGOs, industry). Prerequisite: ENV340HI; 10 full courses or their equivalent, including three environmental courses in the student's
environmental program completed before ENV440YI taken; permission of Undergraduate Student Advisor
Exclusion: INI 440YI
This is a Social Science course.

## ENV44IHI Politics of the Environment 26S (formerly INI494HI)

Provides students with increased understanding of $(1)$ the political conflicts which surround the development and implementation of environmental policy in Canada; and (2) the ways environmentalism is transforming Canadian and global politics. Examination is made, through secondary readings and case studies, of the values, perspectives, and strategies of the various actors, and the context of ideas and institutions within which they operate.
Prerequisite: JGE22IYI/JIE222YI and enrolment in a Centre for
Environment program, or permission of Undergraduate Student
Advisor
Exclusion: INI 494HI
This is a Social Science course.
ENV442HI Corporate Perspectives on the 39 S Environment
(formerly INI442HI)
How business in Canada and elsewhere is responding to the postwar emergence and evolution of the values of environmentalism. The corporate "perspective" includes: the external world of governments, markets, environmental pressure groups, investors, insurers, and lenders; and how the firm responds to these external pressures and manages its environmental issues.
Prerequisite: JGE22 IYI/JIE222YI and enrolment in a Centre for
Environment program, or permission of Undergraduate Student
Advisor
Exclusion: INI 442HI
This is a Social Science course.

## ENV443HI/ Applied Environmental Research Course 444HI (formerly INI443HI/444HI)

Advanced applied environmental research on environmental topics of current relevance, involving information sources and resources outside the University. Students work in teams to investigate and report on research conducted for an off-campus environmental organization.
Prerequisite: JGE22 IYI/JIE222YI, ENV 320YI/ENV32IYI and completion of at least 10 FCE and enrolment in a Centre for Environment program, or permission of the Undergraduate Student Advisor.
Exclusion: INI $443 \mathrm{HI} / 444 \mathrm{HI}$
This is a Social Science course.

## ENV445HI US Environmental Politics 26S (formerly INI445HI)

Study of the factors which determine US federal environmental decisions which in turn both heavily influence international environmental politics and, in an integrated North American economy, comparable domestic decisions made in Ottawa.
Prerequisite: JGE22IYI/JIE222YI and enrolment in a Centre for
Environment program, or permission of Undergraduate Student
Advisor
Exclusion: INI 445HI
This is a Social Science course.
ENV446HI Cities \& Urban
Environmentalism in a

## Global Context

(formerly INI446HI)
Provides an opportunity for in-depth exploration of the implications for urban governance and environmental protection

## Centre for Environment

of three inter-connected phenomena: globalization of the political economy; restructuring of the state; emergence of the city as a global actor.
Prerequisite: JGE22IYI/JIE222YI and enrolment in a Centre
program, or permission of Undergraduate Student Advisor
Exclusion: INI 446HI
This is a Social Science course.

## ENV447HI The Power of Economic Ideas 26S (formerly INI447HI)

From Keynesianism to trading in greenhouse gas permits, the principles of economics have had far greater impact on policy than those of any other discipline; the course examines that power in the field of environmental policy, including the struggle of ecological economics with mainstream economics to introduce new ideas such as scale, place, and inherent value.
Prerequisite: JGE22 IYI/JIE22YI and enrolment in a Centre
program, or permission of Undergraduate Student Advisor
Exclusion: INI 447 HI
This is a Social Science course.

## ENV48IHI/ Special Topics in

 26S482HI the Environment
Special topics course designed for advanced Specialist and Major students in Centre for Environment programs.
Prerequisite: JGE22 IYI/JIE222YI and completion of at least 10
FCE and enrolment in a Centre Environmental program, or permission of Undergraduate Student Advisor.
These are Social Science courses.
ENV483YI Special Topics in 52S the Environment (formerly INI497YI)
Special topics course designed for advanced Specialist and Major students in Centre for Environment programs.
Prerequisite: JGE22IYI/JIE222YI and completion of at least 10 FCE and enrolment in a Centre for Environmental program, or permission of the Undergraduate Student Advisor
Exclusion: INI 497YI
This is a Social Science course.

## ENV490YI Senior Essay

Open only to Specialists in the Environment and Science, and Environment and Sociiety programs, who have completed 15 courses. A major scholarly essay demonstrating the student's ability to integrate the individual course elements from their theme. Prerequisite: JGE22 IYI/JIE222YI and completion of 14 FCE and enrolment in a Centre for Environment program
Co-requisite: ENV42IHI

| ENV49IYI/ | Independent Studies |
| :--- | :--- |
| $492 \mathrm{HI} /$ | Project <br> 493 HI |
| (formerly INI49IYI/492HI/493HI) |  |

A research project or selected topic in an area of environment not otherwise available in the Faculty, meant to develop skills in independent study of interdisciplinary topics. A written proposal cosigned by the student and supervisor must be submitted for approval by the Undergraduate Coordinator of the Centre normally by 31 May of the previous academic year, or three months prior to commencing the course.
Prerequisite: A CGPA of 3.0, JGE22 IYI/JIE222YI, completion of at least 14 FCE, and enrolment in a Centre for Environment program
Exclusion: INI49IYI/492HI/493HI

> Division of the Environment: the Division of the Environment, and its programs, have been amalgamated into the new Centre for Environment (see above)

## Equity Studies: see New College

## Estonian: See Slavic Languages and Literatures

Ethics, Society \& Law: see Trinity College

The European Studies Program is designed to develop an interdisciplinary expertise on modern Europe. Students in the Program can acquire a working fluency in one of the following languages (in addition to English) of the European Union: Croatian, Czech, Estonian, Finnish, French, German, Hungarian, Italian, Macedonian, Polish, Portuguese, Russian, Serbian, Spanish, or Ukrainian. Language instruction emphasizes written and oral communication. To ensure that graduates in European Studies have the historical understanding and specialized knowledge, as well as linguistic competence, necessary to comprehend contemporary Europe, a balanced syllabus is presented: core courses on the political evolution of Europe and on the economics and politics of European integration are complemented by choices from courses offered by the twelve academic departments participating in the Program.

## European Studies Program

This is a limited enrolment program open only to those who earn a mark of at least $70 \%$ in one of the required first-year language courses (for the major) or in a first-year history or political science course (for the minor) and who also successfully complete at least 4 full courses in first year.Visit the European Studies Program web site for updated information about requirements, course offerings, and events: www.utoronto. calesp .

## European Studies (Arts program)

Consult Dr. E. S. Klein, Room 325N, Munk Centre for International Studies (4I6-946-8962) for general program requirements.

## Major program:

(7 full courses or their equivalent, including at least two 300series courses. The language requirement consists of three full credits in a single language at a progressive level of difficulty.)
NOTE: Some of the courses listed below may have prerequisites; some may be offered in alternate years. The list reflects information available at the time of printing. Consult the Program Advisor for up-to-date information.
First Year:
One of the following: EST 100 YI ; FIN 100 YI ; FSL 100 HI and I02HI/I2IYI; GER I00YI/GERIOIH/200YI; HUN I00YI; ITA IOOYI/IOIYI/I02YI/I42YI/I52YI; PRT IOOYI/IIOYI/ 220YI; SLA I00YI, SLA I06YI, SLA I08YI, SLAI 09YI, SLA205YI, SLA207YI, SLA237YI; SPA I00YI/220YI

## Second Year:

I. EUR 200YI
2. One full course equivalent from: EST 200YI; FIN200YI; FSL 22IYI; GER 200YI/300YI/370HI; HUN 200YI; ITA 250YI/25IYI/252YI/253YI; PRT 220YI/320YI; SLA206YI, SLA208YI, SLA209YI, SLA220YI, SLA305YI, SLA307YI, SLA3I6YI; SPA 220YI/320YI
Third Year:
I. POL $207 \mathrm{YI} / 324 \mathrm{YI} / 359 \mathrm{YI}$
2. One full course equivalent from: EST 300 YI ; FIN300HI; FSL $33 \mathrm{IYI} / 34 \mathrm{IYI} / 366 \mathrm{HI}$; GER $300 \mathrm{YI} / 370 \mathrm{HI} / 400 \mathrm{YI} /$ 470 HI ; HUN 3 IOYI ; ITA $343 \mathrm{HI}, 344 \mathrm{HI}, 354 \mathrm{HI}, 355 \mathrm{HI}$; PRT 320YI/420YI; SLA306YI, SLA308YI, SLA320YI, SLA 327 HI, SLA 326 YI ; SPA $320 \mathrm{YI} / 323 \mathrm{HI} / 420 \mathrm{HI}$
Second, Third or Fourth Year:
Two full course equivalents from:ANT 446 YI ; ECO 20IYI,

230YI, $303 \mathrm{YI}, 342 \mathrm{YI}, 452 \mathrm{HI}$; ENG 202YI, 329HI; EST $400 \mathrm{YI} ; F C S 195 \mathrm{HI}, 290 \mathrm{HI}, 29 \mathrm{HI}, 292 \mathrm{HII}, 297 \mathrm{HI}, 3 \mathrm{IOYI}$, $33 \mathrm{IHI}, 390 \mathrm{HI}, 39 \mathrm{HI}, 392 \mathrm{HI}, 395 \mathrm{HI}, 490 \mathrm{HI}, 497 \mathrm{HI} ; \mathrm{FIN}$ $230 \mathrm{HI}, \mathrm{FIN} 235 \mathrm{HI} 240 \mathrm{HI}, 250 \mathrm{HI}, 260 \mathrm{HI}, 3 \mathrm{IOHI}, \mathrm{FIN} 330 \mathrm{HI}$, FIN340HI, FIN350HI, FIN4IOHI, FIN4I5HI; FRE320YI, 322YI, $324 \mathrm{YI}, 326 \mathrm{YI}, 359 \mathrm{HI}, 360 \mathrm{HI}, 364 \mathrm{YI}, 365 \mathrm{HI}, 367 \mathrm{HI}, 368 \mathrm{HI}$, $449 \mathrm{HI} ;$ FSL $43 \mathrm{IYI}, 442 \mathrm{HI}, 443 \mathrm{HI}, 46 \mathrm{Y}$ I; GGR $339 \mathrm{HI}, 344 \mathrm{HI}$, $36 \mathrm{IHI} ;$ GER $150 \mathrm{HI}, 204 \mathrm{HI}, 205 \mathrm{HI}, 232 \mathrm{HI}$, GER $260 \mathrm{YI}, 305 \mathrm{HI}$, $3 \mathrm{I} 0 \mathrm{HI}, 324 \mathrm{HI}, 325 \mathrm{HI}, 327 \mathrm{HI}, 33 \mathrm{IHI}, 334 \mathrm{HI}, 335 \mathrm{HI}, 35 \mathrm{IHI}$, $354 \mathrm{YO}, 355 \mathrm{YO}, 360 \mathrm{HI}, 362 \mathrm{HI}, 353 \mathrm{Y}, 364 \mathrm{HI}, 4 \mathrm{IOHI}, 422 \mathrm{HI}$, $430 \mathrm{HI}, 462 \mathrm{HI}$; HIS $208 \mathrm{YI}, 220 \mathrm{YI}, 232 \mathrm{YI}, 24 \mathrm{HI}, 242 \mathrm{HI}, 245 \mathrm{YI}$, $25 \mathrm{YI}, 302 \mathrm{HI}, 3 \mathrm{IOYI}, 3 \mathrm{I} 7 \mathrm{HI}, 325 \mathrm{HI}, 330 \mathrm{HI}, 33 \mathrm{IHI}, 334 \mathrm{YI}$, $335 \mathrm{HI}, 337 \mathrm{YI}, 338 \mathrm{YI}, 339 \mathrm{YI}, 34 \mathrm{YI}, 344 \mathrm{YI}, 349 \mathrm{HI}, 35 \mathrm{IYI}$, $353 \mathrm{YI}, 354 \mathrm{YI}, 355 \mathrm{HI}, 357 \mathrm{YI}, 388 \mathrm{HI}, 40 \mathrm{IHI}, 407 \mathrm{HI}, 4 \mathrm{I} 4 \mathrm{HI}$, $4 \mathrm{I} 5 \mathrm{HI}, 4 \mathrm{I} 6 \mathrm{HI}, 4 \mathrm{I} 8 \mathrm{HI}, 420 \mathrm{HI}, 42 \mathrm{IHI}, 422 \mathrm{HI}, 429 \mathrm{YI}, 436 \mathrm{HI}$, $442 \mathrm{YI}, 444 \mathrm{HI}, 445 \mathrm{HI}, 449 \mathrm{YI}, 45 \mathrm{IHI}, 453 \mathrm{HI}, 454 \mathrm{HI}, 455 \mathrm{HI}$, $458 \mathrm{YI}, 459 \mathrm{HI}, 460 \mathrm{HI}, 46 \mathrm{H} \mathrm{HI}, 477 \mathrm{HI}, 483 \mathrm{HI}, 488 \mathrm{HI}, 492 \mathrm{YI}$; HUN 320 Y , $335 \mathrm{HI}, 345 \mathrm{HI}, 35 \mathrm{IHI}, 355 \mathrm{HI}, 356 \mathrm{HI}, 440 \mathrm{HI}$, $450 \mathrm{HI}, 45 \mathrm{IHI}, 455 \mathrm{HI} ; \mathrm{INI} 382 \mathrm{HI}, 462 \mathrm{HI}$; ITA $2 \mathrm{I} 0 \mathrm{YI}, 240 \mathrm{Y}$, $245 \mathrm{YI}, 30 \mathrm{IHI}, 3 \mathrm{IOHI}, 326 \mathrm{HI}, 340 \mathrm{YI}, 34 \mathrm{IHI}, 346 \mathrm{HI}, 347 \mathrm{HI}$, $358 \mathrm{YO}, 359 \mathrm{YO}, 38 \mathrm{IHI}, 405 \mathrm{HI}, 4 \mathrm{IOHI}, 4 \mathrm{I} 5 \mathrm{HI}, 42 \mathrm{IHI}, 44 \mathrm{IHI}$, $455 \mathrm{HI}, 49 \mathrm{IHI}, 492 \mathrm{HI} ;$ JEF I00YI; JHP 304YI, 435YI, 454YI; JPD $439 \mathrm{YI} ;$ PHL 2 I 0 Y , $2 \mathrm{I} 7 \mathrm{HI}, 265 \mathrm{HI}, 3 \mathrm{IOHI}, 3 \mathrm{IIHI}, 3 \mathrm{I} 2 \mathrm{HI}$, $3 \mathrm{I} 5 \mathrm{HI}, 3 \mathrm{I} 6 \mathrm{HI}, 3 \mathrm{I} 7 \mathrm{HI}, 320 \mathrm{HI}, 32 \mathrm{IHI}, 322 \mathrm{HI}, 326 \mathrm{HI}, 338 \mathrm{HI}$, 388 HI ; POL $200 \mathrm{YI}, 3 \mathrm{I} 7 \mathrm{YI}, 320 \mathrm{YI}, 32 \mathrm{IHI}, 324 \mathrm{YI}, 344 \mathrm{HI}$, $354 \mathrm{HI}, 359 \mathrm{YI}, 366 \mathrm{YI}, 405 \mathrm{YI}, 4 \mathrm{I} 4 \mathrm{HI}, 4 \mathrm{I} 5 \mathrm{HI}, 422 \mathrm{YI}, 440 \mathrm{YI}$, $452 \mathrm{YI}, 453 \mathrm{YI}, 462 \mathrm{YI}$; PRT 250 HI ; SLA $205 \mathrm{HI}, 2 \mathrm{I} 5 \mathrm{HI}, 216 \mathrm{YI}$, $225 \mathrm{HI}, 226 \mathrm{HI}, 405 \mathrm{YI}, 406 \mathrm{YI}, 4 \mathrm{I} 4 \mathrm{HI}, 4 \mathrm{I} 6 \mathrm{YI}, 424 \mathrm{YI}, 425 \mathrm{YI}$, $434 \mathrm{YI}, 445 \mathrm{HI}, 465 \mathrm{HI}, 475 \mathrm{HI}$; SOC 203YI, $34 \mathrm{IYI}, 350 \mathrm{YI}$; SPA $250 \mathrm{HI}, 34 \mathrm{IHI}, 345 \mathrm{HI}, 435 \mathrm{HI}$.

## Minor program in European Union Studies:

(4 full courses or their equivalent, including at least one 300/400 full-course equivalent)
I. EUR200YI
2. POL207YI/POL324YI/POL359YI
3. Two full credits or their equivalent in eligible elective courses (see European Studies Major above)

## European Studies Courses

See page 33 for Key to Course Descriptions.

EUR200YI | Europe: Nation-State to |
| :--- | :--- | :--- |
| Supranational Union |$\quad$ 52L, 26T

An analysis of the development of European political regimes since 1789. This course identifies the decisive forces and factors affecting the operation of constitutions and institutions within the countries which came to form the European Union: nationalism, multi-nationalism, internationalism and supranationalism.
This is a Humanities or Social Science course

## Given by Members of the Department of Slavic Languages and Literatures

## Faculty

## Professor Emeritus

G. Bisztray, MA, Ph D

Professor
B.Vähämäki, MA, Ph Lic, Ph D

Visiting Professor
J. Kenyeres, MA, Ph D

The Finno-Ugrians are a diverse group of peoples related by an ancient common linguistic heritage distinct from that of the Indo-Europeans who surround them. Of the approximately 25 million Finno-Ugrians, the best known are the Estonians and Finns on the Eastern Baltic Littoral and the Hungarians in the Carpathian Basin. But they also include the Sámis (Lapps) in the northern Fenno-Scandian and Kola Peninsulas, the Erzas, Moksas, Maris, Udmurts, and Komis of the northern woodland zone of European Russia and the Khantys and Mansis of Western Siberia. Distantly related to the Finno-Ugrians are the various Samoyed peoples of Siberia, the Nenets, Enets, Nganassans and Selkups.

Finno-Ugric Studies at the University of Toronto is devoted to the languages, literatures and cultures of the three main groups, the Estonians, Finns and Hungarians. These areas are of interest in themselves but also because of their role in shaping the histories and cultures of their respective geographic space. Because of their centuries-long association with the Slavic peoples, in particular the Russians, Finno-Ugric Studies can be of value to students of Slavic studies. The language courses offered by the three Finno-Ugric programs will be of interest to students of general linguistics who desire to acquire knowledge of a non-Indo-European language.

Undergraduate Secretary:
Professor Joseph Schallert, I2I St. Joseph Street, Room 419, joseph.schallert@utoronto.ca, 416-926-I300, ext. 3246.

## Estonian Studies

Estonian is spoken by approximately one million people in present-day Estonia and some 72,000 in other parts of the world, including 18,000 in Canada. Closely related to Finnish and more distantly to Hungarian, Estonian is one of the few Finno-Ugric languages to exist surrounded by speakers of IndoEuropean languages.

An ancient people, the Estonians have preserved their language and culture despite centuries of domination by other nations. Not only is their heritage enormously rich in folk epics and songs, but Estonians enjoy a vigorous and diversified literary tradition which continues in Estonia proper and in their adoptive countries.
Estonian studies at the University of Toronto are concerned with the language, literature, and culture of Estonia. The language courses will be of interest to those wishing to improve their language skills, as well as to students of general linguistics who desire to acquire a knowledge of a non-Indo-European language.

## Finnish Studies

A nation of five million people, Finland is situated between West and East, between Sweden and Russia, sharing for thousands of years religious, historical, political, social, and cultural influences and experiences with its neighbours and the different worlds they represent.

Finnish, a Finno-Ugric language related to Estonian and Hungarian, is spoken by $94 \%$ of Finland's population, by 300,000 in Sweden, and by large numbers in Canada, the United States, and other countries. The other constitutionally recognized group, the Finland-Swedes, comprises over six percent of the population. The Finns have a strong commitment to their languages and to their culture. Their national epic, the Kalevala, compiled in the 19th century from old Finnish epic narrative poems and incantations, soon became a national symbol and continues to this day to inspire the growth and development of the country's creative force. Today the entire world responds to Finnish achievements in music, literature, the arts and architecture, and celebrates the work of such outstanding figures as Jean Sibelius, Aki Kaurismäki, Alvar Aalto, and Eliel and Eero Saarinen.

Finnish studies at the University of Toronto are presently engaged in teaching the Finnish language - a three-year sequence - and in offering other courses on the literature and culture of Finland.

## Hungarian Studies

Hungarian is spoken by ten and a half million inhabitants of present-day Hungary, about three million people in the neighbouring countries, and perhaps as many as an additional two million around the world. These figures make Hungarian, which is related to Finnish, Estonian, and Lappish, but virtually no other language in Europe, by far the largest minority language in a vast sea of Indo-European speakers.
Preserving their national identity by keeping their unique language alive has been a major concern for Hungarians ever since they settled in the Carpathian Basin over a thousand years ago. Yet far from secluding themselves, they have actively engaged in European history and politics and thereby have shaped their country into a highly cultured and, at times, quite powerful and influential nation. Many Hungarians settled abroad and contributed to the civilizations of their adopted countries. Those who achieved fame in recent decades include Bartók, Moholy-Nagy, Ormandy, Szentgyörgyi, Szilárd, and Vasarely.

Hungarian studies at the University of Toronto are concerned with the language, literature, and culture of Hungary and with the international role of the country, including the particular problem of Hungarian immigration to Canada.

## Estonian, Finnish and Hungarian Programs

Enrolment in the Estonian, Finnish, or Hungarian program requires the completion of four courses; no minimum GPA required.

## Estonian Studies (Arts program)

## Minor program:

(4 full courses or their equivalent, including at least one at the $300+$ level)

Four full course equivalents from EST $100 \mathrm{YI}, 200 \mathrm{YI}, 210 \mathrm{HI}$, $300 \mathrm{YI}, 400 \mathrm{YI}, 420 \mathrm{YI}$; FIN 220 HI

## Finnish Studies (Arts program)

Consult Department of Slavic Languages and Literatures.

## Major program:

(6 full courses or their equivalent)
First Year:
FIN IOOYI
Higher Years:
I. FIN 200 Y , 300 HI
2. Three full course equivalents from the following: FIN $230 \mathrm{HI}, 235 \mathrm{HI}, 240 \mathrm{HI}, 250 \mathrm{HI}, 260 \mathrm{HI}, 305 \mathrm{HII}, 310 \mathrm{HI}$, $320 \mathrm{HI}, 330 \mathrm{HI}, 340 \mathrm{HI}, 350 \mathrm{HI}, 4 \mathrm{IOHI}, 4 \mathrm{I} 5 \mathrm{HI}, 420 \mathrm{YI}$, 430 HI

## Minor program:

(4 full courses or their equivalent, including at least one at the 300+ level)
Four full course equivalents from FIN

## Hungarian Studies (Arts program)

Consult Department of Slavic Languages and Literatures.

## Major program:

(6 full courses or their equivalent)

## First Year:

HUN I00YI
Higher Years:
I. HUN 200YI, 3IOYI, 320YI
2. Two courses from: HIS $453 \mathrm{HI} ; \mathrm{HUN} 335 \mathrm{HI}, 345 \mathrm{HI}, 35 \mathrm{IHI}$, $355 \mathrm{HI}, 356 \mathrm{HI}, 440 \mathrm{YI}, 450 \mathrm{HI}, 45 \mathrm{IHI}, 455 \mathrm{HI} ;$ SLA 4 I 4 HI

## Minor program:

(4 full courses or their equivalent, including at least one at the 300+ level)
Four courses from: HUN I00YI, 200YI, $310 \mathrm{YI}, 320 \mathrm{YI}, 335 \mathrm{HI}$, $345 \mathrm{HI}, 35 \mathrm{IHI}, 355 \mathrm{HI}, 440 \mathrm{YI}, 450 \mathrm{HI}, 45 \mathrm{IHI}, 455 \mathrm{HI} ; \mathrm{HIS}$ 453 HI

## Estonian, Finnish and Hungarian

 CoursesSee page 33 for Key to Course Descriptions
For Distribution Requirement purposes, all EST, FIN and HUN courses are classified as HUMANITIES courses.

## Estonian Courses

Note
The Department reserves the right to assign students to courses appropriate to their level of competence in Estonian.

## ESTIOOYI Elementary Estonian I30P

The basics of Estonian: elementary phonology, morphology, and syntax. Emphasis on reading and speaking as well as writing skills. (Offered in alternate years)
Exclusion: Native Speakers

## EST200YI Intermediate Estonian I04P

Continued emphasis on basic language skills, on acquisition of both active and passive vocabulary. (Offered in alternate years) Prerequisite: ESTIOOY or permission of instructor
EST2IOHI Introduction to Baltic Folklore 26L
A comparative survey of oral traditions of peoples on the eastern shore of the Baltic Sea (Finns, Carelians, Estonians, Livonians, Latvians) and their impact on these national cultures (e.g. Kalevala, Kalevipoeg, Lacplesis). No knowledge of Finnic or Baltic language required.
EST300YI Advanced Estonian 78P
Advanced grammar and stylistics through study of a variety of texts; problems of composition; translation; oral and written practice. (Offered in alternate years)
Prerequisite: EST200Y or permission of instructor
EST400YI Estonian Literature from 1700 26L, 26S
A survey of the major writers and literary periods in Estonian literature. From Käsu Hans', Lament of Tartu to the National Awakening. Republican, Soviet, expatriate literature, and the New Awakening. Readings in Estonian or English. (Offered in alternate years)
Prerequisite: Permission of instructor
Recommended preparation: EST300Y

## EST420YI Independent Study TBA

A reading and research project of significant depth in a major topic in Estonian language, literature or culture approved and supervised by an instructor.
Prerequisite: EST300Y/400Y; permission of instructor

## EST42IHI Independent Study TBA

A reading and research project of significant depth in a major topic in Estonian language, literature or culture approved and supervised by an instructor.
Prerequisite: Permission of instructor

## Finnish Courses

Note
The Department reserves the right to assign students to courses appropriate to their level of competence in Finnish.

FINIOOYI Elementary Finnish
104P
An introductory language course for students with no
knowledge of Finnish. The acquisition of a basic vocabulary and
of an understanding of elementary structural features through practice in comprehension, speaking, reading and writing. (Offered in alternate years)

## FIN200YI Intermediate Finnish I04P

The four language skills (speaking, listening, reading and writing) honed by discussion of Finnish literary texts as well as by compositions in Finnish about these texts, by a series of conversation exercises, and by analysis of morphology, syntax and word formation. Translation is used to aid in language learning. (Offered in alternate years)
Prerequisite: FINIOOY or permission of instructor

## FIN220HI Introduction to Finnish I3L, I3S Linguistics <br> A survey of the linguistic structures of the Finno-Ugric

 languages including Estonian, Finnish and Hungarian with special emphasis on Finnish. Focus is to gain insights into workings of non-Indo-European languages. No prior knowledge of FinnoUgric languages or linguistics required.| FIN230HI | Finnish Culture 1800 to <br>  <br>  <br> Present <br> (formerly FIN2IOYI) |
| :--- | :--- |

FIN230H offers an introduction to Finnish society, history and culture 1800 to present. The course examines the rise of Finnish nationalism in the 1800 s, its main manifestations, particularly the developments of its cultural, educational and social institutions, its economic structures, its demographics, as well as the nation's bilingual status.
Exclusion: FIN2IOYI
FIN235HI Finnish Literature 1800 to I3L, I3P
Present
(formerly FIN2IOYI)
FIN235H surveys the major works in Finnish literature 1800 to present by examining its role in the implementation of the agenda of Finnish nationalism in the 19th and the 20th century. The major genres and periods in Finnish literature are studied. Exclusion: FIN2IOYI
Recommended preparation: FIN230HI

## FIN240HI Masterpieces of I3L, I3S <br> Scandinavian Literature

Introduction to the greatest authors of Scandinavian literature and their greatest works, particularly August Strinberg, Henrik Ibsen, H.C.Anderssen, Knut Hamsun, Selma Lagerlöf, Pär
Lagerkvist, Aleksis Kivi, Sigrid Undset and Halldor Laxness, etc.
These are situated in their Scandinavian context and in world literature. (Offered every two or three years)
Recommended preparation: Some background in literature

## FIN250HI Finnish Cinema 26S, I3P

Development of Finnish cinema from its parochial beginnings to its international recognition. The great pastoral tradition; the war memories (Laine, Kassila, Parikka); socio-political engagement of the 60s (Donner, Jarva), the paucity of the 70s (Mollberg); the universal outsider themes of the 80s (Aki and Mika Kaurismäki). Readings and subtitles in English. (Offered in alternate years)

## FIN260HI Scandinavian Cinema 26S, I3P

Major developments of cinema in Scandinavia in the 20th century with concentration on the major film makers of Denmark, Sweden, and Finland. Screening of films by directors such as Victor Sjöström, Mauritz Stiller, Alfi Sjöberg, Ingmar Bergman, August Bille, Carl Th. Dreyer, Gabriel Axel, Nils Gaupe, Aki and Mika Kaurismäki. (Offered in alternate years)

FIN300HI Advanced Finnish 26S, I3P (formerly FIN300YI)
Advanced Finnish provides a continuation of FIN200Y
Intermediate Finnish.Prerequisite: FIN200YI or permission of instructor
Exclusion: FIN300YI
FIN305HI Finnish Morphology and Syntax 13L, I3S Finnish Morphology and Syntax is designed present the Finnish morphological system and the principles of Finnish syntax to students interested in general linguistics, morphology, syntax, or Finnish linguistics. The Finnish case system, the verb conjugation system and phenomena such as consonant gradation, vowel harmony and clitics will be explored.
Prerequisite: Introduction to linguistics or FINIOOY
FIN3IOHI Finnish Folklore:The Kalevala 13L, I3S An examination of the Finnish national epic, the Kalevala: its relationship to the tradition of folk poetry; its quality as an epic poem; the mythological, religious, and cultural dimensions of its world view; its role in Finland's nation building in the 19th and 20th centuries. Readings in English. (Offered at least every alternate year)

## FIN320HI The Finnish Canadian I3L, I3S

 Immigrant ExperienceMajor issues and dimensions of the culture and experience of the Finnish immigrants to Canada, including Finnish Canadian literature, theatre, and press. Conceptual and ideological contributions to working class culture, women's lives, religious and social attitudes and values. Readings in English. (Offered every three or four years)
FIN330HI Regional Origins of I3L, I3S Finnish Culture
The course traces the construction of a unified Finnish culture over the centuries from subcultures and values which ultimately have their definitions in the regional diversity of the area now called Finland. It focuses on the main divisions into western and eastern Finland, but also explores the Swedish and the Sami (Lappish) heritage in the context of old cultural regions. The sources used are cultural history texts as well as Finnish literature.
FIN340HI Finland-Swedish Literature I3L, I3S and Culture
An examination of the major Finland-Swedish authors (Rune Coerg, Tgrelicks, Sodergran, Tove Jansson) and the linguistic reality of Finland as it has changed over time. The distinctly Finland-Swedish culture is explored, analysed and assessed in its Finnish and Scandinavian context. Cultural giants are studied (Sibelius, etc.).

## FIN350HI The Finnish Short Story 26S

Historical, structural, and thematic study of the short fiction of Finland from the Romanticism of the 19th century to contemporary post-structuralism and post-modernism. Works of Runeberg, Topelius, Kivi, Canth, Aho, Jotuni, Lehtonen, Schildt, Sillanpää, Haanpää, Meri, Hyry, Salama, Mukka, Liksom, Huldén, and others. Readings in English. (Offered in alternate years)

| FIN4IOHI | Finnish Literature I700-I900 <br> (in Finnish) <br> (formerly FIN4IOYI) |
| :--- | :--- |
| A chronological study of the development of Finnish literature, |  |
| emphasizing outstanding writers, significant movements and |  |
| trends, the emergence and transformations of the major genres |  |

and their relationship to Finnish folklore and to the national awakening. Readings in Finnish. (Offered as needed)
Prerequisite: Permission of instructor
Exclusion: FIN4IOYI
Recommended preparation: FIN300Y

## FIN4I5HI Finnish Literature in the 26S <br> 20th Century

This course examines the main literary works and genres of 20th Century Finland, especially Jotuni, Sillanpää, Haanpää, Meri, Manner, Linna, Tuuri and a sample of contemporary writers. The readings are in Finnish.
Prerequisite: Reading ability in Finnish
Exclusion: FIN4IOYI
Recommended preparation: FIN4IOHI
FIN420YI Independent Study
A reading and research project
Prerequisite: Permission of instructor
FIN430YI Independent Study TBA
This course offers students, primarily Finnish Studies majors and minors, an opportunity to design together with the instructor an individualized course of study in Finnish literature or language. Registration requires the permission of the appropriate instructor and the Department of Slavic Languages and Literatures.
Prerequisite: Permission of instructor
Recommended preparation: At least two years of university studies

## Hungarian Courses

Note
The Department reserves the right to assign students to courses appropriate to their level of competence in Hungarian.

HUNIOOYI Elementary Hungarian I30P
The basic features and logic of the language. Development of conversational skills and the reading of easy texts. Open only to students with little or no knowledge of Hungarian.

HUN200YI Intermediate Hungarian I04P
Review of descriptive grammar; studies in syntax; vocabulary building; intensive oral practice; composition; reading and translation.
Prerequisite: Permission of instructor
HUN3IOYI Advanced Hungarian 52S
A synchronic and diachronic survey of the Hungarian language. Conceptualized summary of grammar, syntax, and stylistics; studies in the genesis and historical stages of the language. Brief consideration of living dialects, the basics of poetics; selected problems in translation and language teaching. Readings in Hungarian.
HUN320YI A Survey of Hungarian Literature $52 S$
A chronological study of the development of Hungarian literature since the 12th century; emphasis both on outstanding writers and on significant movements or themes. Transformations of ideas and changes in language and style. No knowledge of Hungarian required.

HUN335HI Urban vs. Rural: Cities and I3L, I3S Country in Hungarian Literature and Culture
This survey of Hungarian literature and culture uses the dichotomy of rural and urban traditions to explore the history of Hungarian literature and art, including poetry, short stories, novels, and folklore. Readings in English (also available in Hungarian).
HUN345HI The Dynamic of Hungarian I3L, I3S Culture, Ethnography, and Folklore
Explore the cultural traditions, historical processes, myths, and figures that have shaped and redefined Hungarian civilization and national identity. Theoretical and practical classes on ethnogenesis, anthropology, and folklore. Readings in English (also available in Hungarian).

## HUN35IHI Conformism and Subversion: 39S

 Hungarian CinemaDevelopments until the sixties; auteurism of the sixties (Jancsó, Szabó); documentarism of the seventies (Mészáros); new trends since the eighties. Relations with the European cinema; contributions to the international film world and to film theory.

| HUN355HI | From Totalitarianism to <br>  <br>  <br>  <br>  <br>  <br>  <br> Democracy: History of the Decades and Reflections of a <br> Changing Society in Hungarian <br> Culture |
| :--- | :--- |

Explore Hungary's rapidly changing place in Europe. Focus on political, sociological, and historical understandings of nationalism and identity as they manifest themselves in literature, history, and culture. Knowledge of Hungarian not required.
HUN356HI Hungary, 1956-2006:The 26S Past 50 Years
On the 50th anniversary of the 1956 Hungarian Revolution, this course investigates the cultural and literary history of Hungary in the past five decades: how art and literature existed in a totalitarian regime, how they changed in the years of "goulash communism" and later, and how they manifest political, sociological, and historical understandings of national and European identity and the place of Hungary within a dynamic Europe. Knowledge of Hungarian not required.
HUN440HI The Roots of Modernism: 26S Hungarian 20th Century Fiction
Continuity and change in form and content studied from the perspective of the native literary and social tradition and in relation to the evolution of modern European fiction; analogies with other genres and arts; survey of criticism. No knowledge of Hungarian required.
HUN450HI Hungary On-Stage: A History 26S of Hungarian Drama in Social Context
Hungarian theatre prior to the 19th century; birth of the national drama (Katona, Madách); populism and cosmopolitanism; post-war tendencies (Hubay, Orkény, Sütö). Hungarian drama in the European context; the theatre as a social institution. No knowledge of Hungarian required.

## Finno-Ugric Studies

## HUN45IHI Three Hungarian Film 39S

## Directors

The course scrutinizes the oeuvre of Miklós Jancsó, Márta
Mészáros, and István Szabó, tracing changes in their style and outlook.
Prerequisite: At least 10 full course credits with; at least one of these in film

HUN455HI Hungary and Europe: I3L, I3S Cultural Adaptation in the Late 20th Century
Focus on literature, art, mass media, and popular culture in post1990 Hungary with special emphasis on the past ties to European culture and the impact of European integration. Readings in English (also available in Hungarian).
HUN497YI Independent Study (Hungarian)
Translation course concentrating on Hungarian prose translation Prerequisite: Permission of Department

## HUN498HI Independent Study (Hungarian)

Translation course concentrating on Hungarian prose translation.
Prerequisite: Permission of Department

## Forest Conservation

## Forest Conservation is a collaborative program of the Faculty of Arts \& Science and the Faculty of Forestry

## Faculty

## Professor and Dean of the Faculty

C.T. Smith, BA, MS, Ph D

## Professors

T.J. Blake, MF, Ph D
P.A. Cooper, M Sc, Ph D
D.L. Martell, MA Sc, Ph D
M. Sain, MTech, Ph D
S.M. Smith, M Sc, Ph D
V.R.Timmer, M Sc F, Ph D

Associate Professors
T.J. Carleton, M Sc, Ph D
S. Kant, MA, Ph D
J.R. Malcolm, M Sc, Ph D
S.C.Thomas, BA, Ph D

Assistant Professors
J. Caspersen, BA, Ph D
S. Laaksonen-Craig, M Sc, Ph D
N. Yan, BA Sc, Ph D

## Senior Lecturer

## A. Kenney, M Sc, Ph D

Forests have traditionally been managed primarily as sources of timber and revenue. However, there is increasing recognition of their immense cultural, social and environmental role, focused particularly by recent United Nations conferences in Rio De Janeiro and Johannesburg. Increasingly the focus of forest management has shifted to include biodiversity maintenance, ecological sustainability, and the protection of wildlife and their habitats. Canadians, as custodians of $10 \%$ of the remaining global forest cover, and $25 \%$ of the undisturbed frontier forest, have both the option and the responsibility to provide global leadership in forest conservation and sustainable forest management. Forest conservation programs prepare students for this critically important role by combining traditional ecological (biology, zoology) and physical (soil science, hydrology) sciences with social sciences. Forest conservationists increasingly focus on complex, emerging social and community issues, such as aboriginal rights and land tenure, protection of wilderness parklands, preservation of urban green space, and the use of forests for carbon sequestration.

Canada is not only a key player in global forest conservation, but is also more economically dependant on forests than any other major developed country. Responsible stewardship of our forests and the changing focus from industrial timber production to forest conservation has greatly expanded the range of expertise necessary. Graduates can pursue a wide range of new career opportunities developing in private, government and non-government environmental organizations where forest conservationists increasingly work as members of multidisciplinary teams of environmental and resource managers. Graduates from forest conservation programs can
also pursue graduate programs in a wide range of disciplines, including forest conservation, forestry, environmental sciences and international development.

Students may take a specialist 4-year degree leading to an H.B.A. in Forest Conservation or an H.B.Sc. in Forest Conservation Science. The arts program focuses on communal forest management, development of forest policies, forest economics and forest product trade, with electives in social sciences, while the science program concentrates on forest biology and ecology with electives in life and physical sciences.

The specialist programs provide a grounding in forest conservation with emphasis on breadth as well as research depth, and can particularly meet the needs of individuals who are considering graduate level education in forestry (M.F.C., M.Sc.F. or Ph.D.).

The major programs in Forest Conservation are intended to build on a student's interest in forestry and related issues. Students should consider combining these programs with a major in another related discipline such as environment, geography, botany, zoology, chemistry, urban studies or architecture.

A minor in Forest Conservation Science in the science stream and a minor in Forest Conservation in the arts stream are also available. Students should consider combining these programs with a minor in other related disciplines.

Undergraduate Co-ordinator:
Professor Vic Timmer, Room 3035 , Earth Sciences Centre (416-978-6774)

Undergraduate Administrator:
Ms.A.Veneziano, Room IOI6E, Earth Sciences Centre (4I6-9785480)

## Forest Conservation Programs

## Forest Conservation Science (Science program)

Enrolment in the specialist program is open to students who have completed four first-year courses with a minimum GPA of 2.3. Enrolment in the major and minor programs is open to students who have completed four first-year courses with a minimum GPA of 2.0.

## Specialist program:

(13.5 full courses or their equivalent, including at least four $300+$ series courses and 2.5400 -series courses; other equivalent and approved courses offered by other Faculties, University of Toronto Mississauga or University of Toronto Scarborough may be eligible for inclusion.)

First Year:
BIOI50YI;Two Science FCEs (GGRI00YI; CHMI $38 \mathrm{HI}, 139 \mathrm{HI}$ recommended)
Second Year:
I. ENV 234 Y ; FOR $200 \mathrm{HI}, 20 \mathrm{IHI}$
2. One FCE from: ECO $220 \mathrm{YI}, 227 \mathrm{YI}$; GGR 270 HI ; JBS 229HI/STA 22 IHI ; STA 220HI
3. One FCE from: BIO 260 HI ; BIO 25IYI; EES C2OHI (University of Toronto Scarborough); GGR 205HI, 206HI, $272 \mathrm{HI}, 273 \mathrm{HI} ; \mathrm{PHL} 273 \mathrm{HI} ;$ ENV236YI; JGE22IY/JIE222YI
Third Year:

## Forest Conservation

I. FOR $30 \mathrm{IHI}, 305 \mathrm{HI}$. At least One FCE from FOR 300 HI , $302 \mathrm{HI}, 303 \mathrm{HI}, 306 \mathrm{HI}, 307 \mathrm{HI}$; EEB32 IHI
2. 0.5 FCE from: EEB $307 \mathrm{HI}, 3 \mathrm{I} 9 \mathrm{HI}, 323 \mathrm{HI}, 328 \mathrm{HI}, 34 \mathrm{I}$; CSB 340HI
3. At least I. 5 FCE from: BIO $302 \mathrm{HI}, 303 \mathrm{HI}, 306 \mathrm{HI}, 308 \mathrm{HI}$, $324 \mathrm{HI}, 465 \mathrm{HI}$; GGR303HI, $305 \mathrm{HI}, 3 \mathrm{IOHI}$; EEB324YI, $360 \mathrm{HI}, 36 \mathrm{IHI}, 386 \mathrm{HI}, 388 \mathrm{HI}, 389 \mathrm{HI}$
Fourth Year:
I. FOR $400 \mathrm{YI}, 40 \mathrm{IHI}$
2. One FCE from: FOR $403 \mathrm{HI}, 404 \mathrm{HI}, 405 \mathrm{HI}, 4 \mathrm{I} 2 \mathrm{HI}, 4 \mathrm{I} 3 \mathrm{HI}$, $4 \mathrm{I} 6 \mathrm{HI}, 4 \mathrm{I} 7 \mathrm{HI}:$ GGR403HI; ENV $442 \mathrm{HI}, 447 \mathrm{HI} ; J F G$ $470 \mathrm{HI}, 475 \mathrm{HI}$

## Major program:

(8 full courses or their equivalent, including at least 2.0
$300+$ series courses and one 400 -series course; other equivalent and approved courses offered by other Faculties, University of
Toronto Mississauga or University of Toronto Scarborough may be eligible for inclusion.)
First Year:
BIOI50YI;Two Science FCEs (GGRI00YI; CHM I $38 \mathrm{HI}, \mathrm{I} 39 \mathrm{HI}$ recommended)
Second Year:
FOR $200 \mathrm{HI}, 20 \mathrm{IHI}$; One FCE from ENV236YI, 234 YI ; JGE $22 \mathrm{IY} / J \mathrm{IE} 222 \mathrm{Y} \mathrm{I}$
Third Year:
FOR $305 \mathrm{HI} ;$ I. 5 FCE from: FOR $300 \mathrm{HI}, 30 \mathrm{IHI}, 302 \mathrm{HI}, 303 \mathrm{HI}$, $306 \mathrm{HI}, 307 \mathrm{HI}$; EEB32 IHI
Fourth Year:
FOR 400YI

## Minor Program:

(4 full courses or their equivalent, including at least I. 0
300 +series course and one 400 -series course)
First Year: BIOI50YI/ GGRI00YI/ENV200YI
Second Year: FOR200HI, 201HI
Third Year: One FCE from: FOR $300 \mathrm{HI}, 30 \mathrm{HI}, 302 \mathrm{HI}, 303 \mathrm{HI}$, $305 \mathrm{HI}, 306 \mathrm{HI}, 307 \mathrm{HI}$
Fourth Year: FOR400YI

## Forest Conservation (Arts program)

Enrolment in this program is open to students who have completed four first-year courses with a minimum GPA of 2.3. Enrolment in the major and minor programs is open to students who have completed four first-year courses with a minimum GPA of 2.0.

## Specialist program:

(I2 full courses or their equivalent, including at least 3.5
$300+$ series courses and 2.5400 -series courses; other equivalent and approved courses offered by other Faculties, University of Toronto Mississauga or University of Toronto Scarborough may be eligible for inclusion.)
First Year:
BIO I50YI; GGRI07YI or One Social Science FCE
Second Year:
I. ENV 234 Y ; FOR $200 \mathrm{HI}, 20 \mathrm{IHI}$
2. One FCE from: ECO $220 \mathrm{YI}, 227 \mathrm{YI}$; GGR 270 HI ; JBS $229 \mathrm{HI} / \mathrm{STA} 22 \mathrm{IHI}$; STA $220 \mathrm{HI} / 250 \mathrm{HI} / 255 \mathrm{HI}$
3. One FCE from:ABS 20IYI;ANT 204YI;JGE 22IY/ JIE222YI; PHL 273HI
Third Year:
I. FOR $30 \mathrm{IHI}, 305 \mathrm{HI}$; At least One FCE from: FOR 300 HI , $302 \mathrm{HI}, 303 \mathrm{HI}, 306 \mathrm{H}, 307 \mathrm{HI}$; EEB 32 IHI
2. At least One FCE from:ANT 365 YI ; GGR $33 \mathrm{IHI}, 393 \mathrm{HI}$; HIS 3I8YI; ENV $320 \mathrm{YI}, 32 \mathrm{IYI}, 332 \mathrm{HI}$; UNI $302 \mathrm{HI}, 3 I 5 \mathrm{YI}$, 3I7YI;JAG32IHI
Fourth Year:
I. FOR 400 Y , 40 IHI
2. One FCE from:ANT $450 \mathrm{HI}, 453 \mathrm{HI} ;$ FOR $403 \mathrm{HI}, 4 \mathrm{I} 2 \mathrm{HI}$, $4 \mathrm{I} 6 \mathrm{HI}, 4 \mathrm{I} 7 \mathrm{HI}$; ENV $4 \mathrm{I} 0 \mathrm{HI}, 42 \mathrm{IHI}, 422 \mathrm{HI}, 423 \mathrm{HI}, 440 \mathrm{YI}$, $442 \mathrm{HI}, 447 \mathrm{HI}, 494 \mathrm{HI} ;$ JFG $470 \mathrm{HI}, 475 \mathrm{HI}$

## Major program

(8 full courses or their equivalent, including at least $2.0300+$ series courses and one 400 -series course; other equivalent and approved courses offered by other Faculties, University of Toronto Mississauga or University of Toronto Scarborough may be eligible for inclusion.)
First Year:
BIO I50YI; GGR I07YI or One Social Science FCE
Second Year:
I. ENV $234 \mathrm{YI} ;$ FOR $200 \mathrm{HI}, 20 \mathrm{IHI}$
2. One FCE from: ABS 20IYI;ANT 204YI;ECO 220YI, 227YI; GGR 233YI, 270HI; JBS 229HI/STA 22IHI; JGE22IY; PHL 273 HI ; STA $220 \mathrm{HI} / 250 \mathrm{HI} / 255 \mathrm{HI}$
Third Year:
FOR $30 \mathrm{IHI}, 305 \mathrm{HI}$. One FCE from: FOR $300 \mathrm{HI}, 302 \mathrm{HI}$, $303 \mathrm{HI}, 306 \mathrm{HI}$; EEB 32 IHI
Fourth Year:
FOR 400YI

## Minor program:

(4 full courses or their equivalent)
First Year: One of ANTI00YI/ECOIO0YI/ENV200YI/ GGRIOOYI/I07YI
Higher Years: 3 FCEs from (FOR200HI, 20IHI, $30 \mathrm{IHI}, 302 \mathrm{HI}$, $303 \mathrm{HI}, 305 \mathrm{HI}, 306 \mathrm{HI}, 307 \mathrm{HI}, 400 \mathrm{YI}, 40 \mathrm{IHI})$

## Forest Conservation Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27) FOR courses are classified as either Science or Social Science courses; please check individual course listings.

## FOR200HI Conservation of Canada's Forests

Development of forest management philosophy in Canadian and temperate forest regions; the sustained-yield paradigm and concepts of sustainability. Techniques for more sustainable forest management: structural retention; viable park and reserve networks; old growth; value-added and non-traditional forest products.
Recommended preparation: BIOI50YI/GGRI00YI
This is a Science course

FOR20IHI | Conservation of Tropical and |
| :--- |
| Subtropical Forests |

The world's major tropical and subtropical forest biomes;
prospects for conservation and sustainable management;
consequences of different forest development strategies;
tropical deforestation and selective logging; biodiversity
and non-timber forest products; the fuelwood crisis; fire
management and large carnivore conservation; ecological,
economic and social perspectives.
Recommended preparation: BIOI50YI/GGRI00YI

This is a Science course

## FOR300HI Forest Products in 26L, 26P Sustainable Forestry

Traditional and non-traditional forest products; wood structure; properties and material attributes; functional characteristics and logistics of wood product industry. Contribution of innovative product development to conservation; adding value; residue use; biorefinery; under-utilized species; wood protection. Forest product certification; eco-labelling; life cycle analysis.
Recommended preparation: FOR200HI, 20IHI
This is a Science course

## FOR30IHI Field Methods in

TBA

A practical introduction to the field methods used by forest conservationists in central Ontario. This course is a 10 -day field camp conducted in the Haliburton Highlands, between approximately September I - IO. Field exercises will provide students with practical training in tree identification, forest ecosystem classification, forest inventory, stand management prescriptions, tree marking, and silvicultural systems. Each student is required to pay an ancillary fee of $\$ 400$ to cover the costs of their transportation and accommodation. Students must contact the Faculty to register - we strongly recommend that you do so by the end of May, but later registrations will be considered if class size permits.
Recommended preparation: ENV234YI; FOR200HI, 20IHI, GGR205HI
This is a Science course

## FOR302HI Societal Values and Forest Management

The course will provide diverse perspectives about forests, such as Aboriginal perspective, ecosystem services and human health, climate change and carbon sequestration, and forest management systems, such as community-based forest management and adaptive management systems; and will develop and understanding of the need of integrative approach to address the social, cultural, economic, and scientific issues associated with forest management.
Recommended preparation: FOR200HI, 20IHI
This is a Social Science course

## FOR303HI Human Dimensions of Global Forests

Global forest resources; global and regional production, consumption and trade of timber and non-timber products; relationships between societies and forests; international forest policy; economic value of forests; forests and development. Recommended preparation: FOR200HI, 20 IHI
This is a Social Science course
FOR305HI Biology of Trees and Forests 26L, 40P An overview of the biology of trees and the ecological principles that govern the structure and function of forests. Topics in tree biology will include tree identification, wood anatomy, tree architecture, resource acquisition and allocation, tree growth and mortality. Topics in forest ecology will include resource competition, stand development, species succession, and the cycling of nutrients and energy. This course will include a substantial field and lab component.
Recommended preparation: FOR200HI/20IHI, BIOI50YI/ ENV234YI
This is a Science course.

## FOR306HI

This course will provide practical experience in tropical forest ecology and conservation, the impact of human use and natural disturbance on forest ecosystem processes and biodiversity, and the development of effective forest conservation strategies. The 10 day course spanning Reading Week will be field-based in Malaysia, Panama, Costa Rica, Dominica, Bolivia or Brazil. A set of 5 weekly 2 -hour lectures will be associated with the course. Prerequisite: FOR20IHI, FOR30IHI or FOR305HI
This is a Science course.

## FOR307HI Forest Insect Ecology \& 26L, 26P Management

Insect identification and ecology, biodiversity and conservation, insect-tree interaction, exotic introductions, biological control, pesticide use, and integrated pest management. (Offered in alternate years.)
Recommended preparation: FOR30IHI or FOR 305 HI , EEB
360 HI or EEB 36 IHI
This is a Science course
FOR400YI Advanced Seminar in
Examination of current and emerging critical issues affecting sustainable management and conservation of global forests. Seminars led by students, faculty and visiting speakers.
Prerequisite: At least 2 of $\mathrm{FOR} 300 \mathrm{HI}, 30 \mathrm{IHI}, 302 \mathrm{HI}, 303 \mathrm{HI}$, $305 \mathrm{HI}, 306 \mathrm{HI}, 307 \mathrm{HI}$
This is classified as BOTH a Science and a Social Science course

## FOR40IHI Research Paper/Thesis in

 Forest ConservationIndividual in-depth student research projects on significant forest conservation projects, based on field and/or laboratory research, or literature survey.
Prerequisite: At least 2 of $\operatorname{FOR} 300 \mathrm{HI}, 30 \mathrm{IHI}, 302 \mathrm{HI}, 303 \mathrm{HI}$,
$305 \mathrm{HI}, 306 \mathrm{HI}, 307 \mathrm{HI}$ (minimum of 15 FCEs)
This is classified as BOTH a Science and a Social Science course
FOR403HI Directed Readings 26T
Provides opportunities for students to carry out individual indepth study of current forest conservation issues, under the direction of a faculty member.
Prerequisite: At least 2 of FOR $300 \mathrm{HI}, 30 \mathrm{IHI}, 302 \mathrm{HI}, 303 \mathrm{HI}$, $305 \mathrm{HI}, 306 \mathrm{HI} 307 \mathrm{HI}$, (minimum of 15 FCEs)
This is classified as BOTH a Science and a Social Science course
FOR404HI Soil Fertility \& Tree Nutrition 26L, 26P
Determining physical, chemical, and biological properties of soils. Soil fertility testing and plant chemical analysis. Mineral nutrition of trees and seedlings, diagnosis and interpretation of soil and foliar analyses. Prescription of soil amendments for intensive
forest management.(Offered in alternate years)
Prerequisite: GGR205HI (minimum of I5 FCEs)
Recommended preparation: GGR307HI
This is a Science course
FOR405HI Forest Products \& Processing 26L, I2P
Processing of wood into commercial products including wood adhesion and composites manufacturing; specifications and testing; sawmilling; wood drying; wood deterioration and protection; life cycle analysis of wood-based products.
Prerequisite: FOR300HI (minimum of I5 FCEs)
This is a Science course

## Forest Conservation

## FOR4I2HI Ecology, Management and I2L, I4S Conservation of Tropical Forests

The nature of the tropical biome; climate; ecology; carbon sequestration potential. Emerging critical ecological and social issues related to utilization, management and conservation of tropical forests.
This is a Science course
FOR4I3HI Wildlife Ecology \& Conservation 26L
Temperate and tropical wildlife ecology and conservation; roles of wildlife in forest conservation; impacts of forestry practices and landscape modification on wildlife; ecology and viability of wildlife populations; human uses and abuses of game and nongame species.
Prerequisite: $\mathrm{BIO} 3 \mathrm{I} 9 \mathrm{HI} / 32 \mathrm{IHI} / 323 \mathrm{HI} / 324 \mathrm{HI} / \mathrm{ENV} 234 \mathrm{YI} /$
FOR $200 \mathrm{HI} / 201 \mathrm{HI} / E E B 22 \mathrm{HI}$ (minimum of 15 FCEs )
This is a Science course

## FOR4I6HI Urban Forest Conservation

Current research and practice in the conservation and enhancement of urban forests. Reviews the role of trees and woodlands in providing environmental and socio-economic benefits to urban and peri-urban residents. Examines approaches to the characterization of urban forest ecosystems, and their planning and management to contribute to sustainable communities.
Prerequisite: FOR200HI, 201 HI
This is a Science course

## FOR4I7HI Ecological Principles of Agroforestry

This course introduces students to the roles of trees and forests in agricultural land-use systems primarily in the third world. It deals primarily with the biological and management aspects of agroforestry, within the socio-economic constraints of the developing world. The sustainability of particular agroforestry systems will be a theme throughout. This is a Science course

## FOR4I8HI Urban Forest Conservation 45L I5P Field Camp

The course consists of ten days examining urban forestry issues in the GTA, southern and eastern Ontario, Quebec and northern New York State. Topics include: urban forest inventories, nursery production, arboricultural techniques, urban woodland management, urban forest health, urban forest administration, urban dendrology, and urban forestry research. Prerequisite: FOR200HI/FOR20IHI/permission of the instructor.
This is a Science course.

FOR4I9HI | Forest Fire Behaviour and |
| :--- |
| Management |

Understanding forest fire activity is important for predicting
fire's impact on forests and the wildland-urban interface,
as well as the impacts of climate change. Basic principles of
fire occurrence and behaviour are explored. Considerable
emphasis is placed on application of these models to real fire
management problems.
Prerequisite:ECO220YI/ECO227YI/GGR270HI/PSY20IHI/
SOC300YI/STA220HI/STA250HI/STA248HI/STA26IHI
This is a Science course.

JFG470HI Forest Management 26L
Application of operational research and information technology to develop decision support systems for forestland management planning. Basic principles of mathematical programming,
simulation and decision analysis, and their application to planning for forest conservation and sustainable development, policy analysis and other land management planning problems. Prerequisite: One course in quantitative methods or linear algebra
Recommended preparation: ECO220YI/227YI/GGR270YI/
MATI $33 \mathrm{YI} / 223 \mathrm{HI}$
This is a Science course

## JFG475HI Emergency Response 26L, 26T

 Systems PlanningUse of operational research and information technology to develop mathematical models and decision support systems to design and evaluate the performance of emergency response systems. Forest fire management systems are used to illustrate the basic principles of emergency response system planning that can also be applied to urban fire, police and ambulance services. Prerequisite: One course in quantitative methods or calculus Recommended preparation: ECO220YI/227YI/GGR270YI/ MATI33YI/I35YI/I37YI
This is a Science course

## Faculty

University Professor Emeritus
B.T. Fitch, BA, D 3e C (T)

Professors Emeriti
C. Bertrand-Jennings, LèsL, Ph D (University of Toronto Scarborough)
D.E. Bouchard, AM, Ph D (V)
P.A.R. Bouissac, LèsL, DES, D Phl (V)
N. Boursier, DES, CAPES, D 3e C (U)
F.I. Case, MA D 3e (N)
J.G. Chidaine, AM, Ph D (V)
C. Cloutier-Wojciechowska, LèsL, DES, MA, M Ph, DPS, DUP (University of Toronto Mississauga)
P. Collet, AM, Ph D (SM)
J.A. Dainard, MA, Ph D (U)

Rev. R.B. Donovan, MA, Ph D (SM)
L.E. Doucette, BA, Ph D (University of Toronto Scarborough)
A.G. Falconer, MA, D 3e C (U)
P. Fitting, MA, Ph D (N)
J.F. Flinn, MA, D 3e C (U)
P. Grillo, MA, Ph D (SM)
C.M. Grisé, MA, Ph D(SM)
A.R. Harden, AM, Ph D (V)
D.M. Hayne, MA, Ph D, D 3e C (U)
E.A. Heinemann, MA, Ph D (N)
E.F. James, MA, D 3e C (U)
R.W. Jeanes, BA, D 3e C (V)
E.M. Kushner, MA, Ph D (V)
E. Lehouck, AGR ESS, D Phl (U)
M.M. Léon, LèsL, DES, D 3e C (V)
P.R.A. Léon, LèsL, D 3e C, DèsL, D Honoris Causa (N)
N. Maury, LenD, D 3e C (T)
J.A. McClelland, MA, Ph D (V)
B. S. Merrilees, MA, D 3e C (V)
P.W. Nesselroth, MA, Ph D (U)
C.R. Parsons, MA, Ph D (U)
A. Rathé, LèsL, LèsD, Ph D (V)
A. Rosenberg, MA, Ph D (V)
J. Savona, LèsL, DES, CAPES, D 3e C (T)
H.G. Schogt, MA, Ph D (U)
B.-Z. Shek, MA, Ph D (U)
D.W. Smith, BA, Ph D (V)
R.A. Taylor, MA, Ph D (V)
C.D.E. Tolton, AM, Ph D (I, V)
J.A.Walker, MA, Ph D (U)
H.H.Weinberg, MA, Ph D (University of Toronto

Mississauga)
T.R.Wooldridge, BA, D 3e C (T)

## Associate Professor and Acting Chair of the

 DepartmentE. Nikiema, MA, PhD (University of Toronto Mississauga)

## Associate Chair

D. Issa-Sayegh, MA, D 3e C (SM)

## Professors

D. Clandfield, MA, D 3e C (N)
D. de Kerckhove, MA, Ph D (SM)
J. LeBlanc, MA, Ph D (V)
R.J. Le Huenen, LèsL, DES, D Phl (V)
P. Martin, IRAL BR, D 3e C, D Sc A (SM)
W.A. Oliver, MA, D 3e C (T)
M. O'Neill-Karch, MA (WW)
J. Paterson, MA, Ph D (I)
P.J.G.O. Perron, BA, D 3e C (U)
Y. Roberge, MA, Ph D (SM)

## Associate Professors

P. M. Bhatt, MA, Ph.D (SM)
A.-M. Brousseau, MA, PhD (SM)
H.S.F. Collins, MA, Ph D (V)
A. Cozea, MA, Ph D (V)
C. Elkabas, MA, Ph D (University of Toronto Mississauga)B.

Havercroft, MA, Ph D (V)
D. Kullmann, MA, PhD (SM)
M. Lord, MA, Ph D (University of Toronto Mississauga)
P. Michelucci, MA, Ph D (University of Toronto Mississauga)
S. Mittler, MA, Ph D (University of Toronto Scarborough)
A. Motsch, MA, Ph D (V)
J. Ndayiragije, MA, Ph D (University of Toronto

Scarborough)
E. Nikiema, MA, Ph D (University of Toronto Mississauga)
Y. Portebois, MA, Ph D (SM)
A. Tcheuyap, MA, Ph D

## Assistant Professors

S. Benharrech, MA, PhD (University of Toronto

Mississauga)
L. Cortade, MA, PhD
A. Glinoer, MA, PhD
M. Pirvulescu, MA, Ph D (University of Toronto Mississauga)
P. Riendeau, MA, Ph D (University of Toronto Scarborough)
D. Speirs, MA, Ph D (SM)
J. Steele, MA, Ph D (SM)

## Senior Tutor

M. Charlebois, MA, Ph D (U)

## Senior Lecturers

C. Evans, MA, Ph D (University of Toronto Mississauga)
D. Issa-Sayegh, MA, D 3e C (SM)
K. McCrindle, MA, Ph D (University of Toronto

Scarborough)
F. Mugnier-Manfredi, MA, Ph D (University of Toronto

Scarborough)
G. Paray-Clarke, MA, Ph D (SM)

## Lecturers

C. Beauquis, MA, PhD (University of Toronto Scarborough)

French studies in the University of Toronto provide varied and
flexible approaches to one of the world's major international languages and the diversity of cultures expressed in it.

The courses listed here fall into six main sequences: Literature, Linguistics, French as a Second Language, French Culture,

## French

Translation and Second Language Learning. Through modular programming, students enjoy the freedom to concentrate or diversify their interests in these areas. The skills and knowledge acquired will lay the groundwork for careers in teaching, journalism, translation, publishing, and government service, as well as research in a variety of fields.

Literature (FRE): 200-level courses introduce students to literary analysis and present Québécois and French literature in their cultural and historical contexts. 300-level courses encompass the full range of major works of French and Québécois literature. 400-level courses raise questions about notions of literary tradition and mainstream methods of study: the scope of literature is stretched further back or ahead in time, further away in space from traditional centres (France and Québec) and away from dominant sensibilities (to include women's voices and non-traditional modes of writing); and connections are made to other disciplines. The actual content of most 400-level courses varies considerably according to the instructor. Students should consult the Department of French Undergraduate Brochure (which is also available on-line at www.chass.utoronto.ca/french/under) for content specific to a given year.

Linguistics (FRE): A 100-level course introduces students to the study of grammatical concepts. 200-level courses initiate students into analysis of contemporary French and into the history of its development. 300-level courses break the discipline of linguistic analysis into its chief component parts. 400-level courses extend the study of the French language back in time or out from the idealized standard form; and connections are made to other disciplines (including second language acquisition).

Translation (FRE): Courses on French and English translation at the 300/400-level may be used in a Minor program that may be added to any other Minor, Major or Specialist program. Such courses are, however, not limited to students taking this program. Certification for this program should not be viewed as the equivalent to a professional diploma in translation but may stand students in good stead should they seek admission to such a program following graduation.

French as a Second Language (FSL):The FSL program is designed to accommodate the widest possible range of previous learning, special needs, and particular interests of students. Emphasis is given to both written and spoken language; at higher levels, half-courses allow for specialized study of one or the other. A placement test (mandatory) will allow students to work at the most suitable level to develop their skills of reading, writing, listening and speaking French. The Department reserves the right to place students in the language course appropriate to their level of language skill, based on the results of a placement test. Since 100, 200, 300 and 400 -level FSL courses correspond to levels of competence in French, a student may be recommended to enroll in a course at a higher level than his/her year of study. The placement test is mandatory for all students who register in an FRE or FSL course for the first time. It is available online at www.lang.utoronto.ca/placement/ french and can be taken on any computer properly equipped to manage sound files. Students who do not have access to such a computer should write to french.placement@utoronto. ca and make an appointment to take the test at the Multimedia Centre. The test must be taken prior to registration or at the latest by the end of the first week of classes in order to insure
enrolment in the appropriate course. For students in Major and Specialist French programs, emphasis is on precise academic writing and speech approximating as closely as possible that of native speakers. For students not in Major and Specialist French programs, emphasis is on listening and reading skills in varying social and cultural contexts and on the acquisition of vocabulary.

French Cultural Studies (FCS): Courses on French and Francophone culture, taught in English, may be used in a Minor program that may be added to any other Minor, Major or Specialist program. These courses may also be used to fulfil breadth requirements.

Second Language Learning: A Major program in Second Language Learning may be combined with a similar Major program in Italian to produce a Combined Specialist program. The core course for this program is JFI 225YI which instructs students in the methodology of second-language learning and will be of particular interest to those planning a career in teaching. It will be taught alternately by instructors from the Departments of French and Italian Studies.

Study Elsewhere:To be entitled to participate in the Department's Third Year Study Elsewhere Program, a student must satisfy the following requirements: overall average of at least $70 \%$ in courses completed in second year, and an average of $70 \%$ in at least two French courses (FRE) required in a Major or Specialist program. . Information on these programs and on the Second Language Summer Program is available on-line at www.chass.utoronto.ca/french/under/else.htm. For further counselling on these programs, contact the Study Elsewhere Advisor at 416-926-23IO or french.elsewhere@utoronto.ca.

Exclusions and prerequisites: Students must conform to all requirements stated in the exclusions and prerequisites to register in a course. Students who do not have the co- or prerequisites for a given course must obtain the permission of the Department, prior to registration. The Department will assess the students' admissibility to the course in consultation with the instructor. For FSL courses, exclusions ensure that students follow the best progression in language learning.

Further Information:The Department of French Undergraduate Brochure, available at the Department, contains more detailed information about all the courses and programs listed below. It is also available in an electronic form, which is regularly updated, at www.chass.utoronto.ca/french/under.

## Counselling:

50 St. Joseph St., Rm. 226 (4I6-926-2333), email: french.
undergraduate@utoronto.ca
Enquiries:
50 St. Joseph St., Rm. 210 (4I6-926-2302), email: french. secretary@utoronto.ca; website: www.chass.utoronto.ca/french

## French Programs

Enrolment in all French programs requires the completion of four courses. No minimum GPA is required.
Note:
FRE 172 HI provides useful basics for further studies in Linguistics and Second Language Learning, and for students who feel they would benefit from a better understanding of the grammatical structure of the language.

## French Language and Literature (Arts program)

## Specialist program:

(II full courses or their equivalent)
I FSL22IYI (Students exempted from this course may replace it with FRE 250 YI ); FSL 34 IYI , FSL 442 HI , FSL 443 HI (Students exempted from FSL 34IY may replace it with any FRE course. Students with $77 \%$ in FSL 34 IY may replace FSL $442 \mathrm{H}, 443 \mathrm{H}$ with a $300+$ series FRE course.
2. FRE 240 Y I
3. FRE 272YI/273YI
4. FRE 440 H - Literary Theory.
5. 5.5 additional FRE literature courses including the following: at least 0.5 course in each group $A, B, C$ and $D$, and another 1.0 at the 400 level

## Major program:

(8 full courses or their equivalent)
I. FSL 22 IYI. (Students exempted from this course may replace it with FRE 250 YI ); FSL 34IYI (Students exempted from this course may replace it with any FRE course)
2. FRE 240YI
3. FRE $272 \mathrm{YI} / 273 \mathrm{Y}$ I
4. 4 additional FRE literature courses including the following: at least 0.5 course in each group $A, B, C$ and $D$, and another 1.0 course at the 400 level.

Note: COURSES IN EACH GROUP ARE OFFERED IN ALTERNATE YEARS AS FOLLOWS:
Courses offered in Odd Years: (2007-08)
A - FRE 320H (17th Century); B - FRE 364H (19th Century); C - FRE 314H (Quebec); D - FRE 32IH (Middle Ages)

Courses offered in Even Years (2008-09)
A - FRE 322H (I8th Century); B - FRE 326H (20th Century); C - FRE 332H (Francophonie); D - FRE 3I9H (Renaissance)

## French Language and French Linguistics (Arts programs)

## Specialist program:

(IO full courses or their equivalent)
I. FSL 22 IYI. Students exempted from this course may replace it with FRE 172 HI and an additional FRE Linguistics half-course.
2. FRE 272YI
3. FRE $2 I O Y I / 240 Y I$
4. FSL $34 \mathrm{IYI}, 442 \mathrm{HI}, 443 \mathrm{HI}$. Students exempted from FSL 34 IYI may replace it with any FRE course. Students with $77 \%$ in FSL 34 IYI may replace FSL $442 \mathrm{HI}, 443 \mathrm{HI}$ with a $300+$ series FRE course.
5. FRE $376 \mathrm{HI}, 378 \mathrm{HI}$
6. Four additional FRE Linguistics courses. At least two of these courses must be at the 300/400-level, including one at the 400 -level. FRE 375 YI may be substituted for one of these four courses.

Major program:
(7 full courses or their equivalent)

I FSL 22IYI. Students exempted from this course may replace it with FRE 172 HI and an additional FRE Linguistics half-course.
2. FRE 272YI
3. FRE $210 \mathrm{Y} / / 240 \mathrm{Y} I$
4. FSL 34 IYI . Students exempted from this course may replace it with any FRE course.
5. FRE $376 \mathrm{HI}, 378 \mathrm{HI}$
6. Two additional FRE Linguistics courses. At least one of these courses must be at the 300/400-level, including one half-course at the 400 -level. FRE 375 YI may be substituted for one of these two courses.

## Second Language Learning (French) (Arts <br> Program)

## Major program:

(8 full courses or their equivalent including at least 2 at the $300+$ level)
I. FSL 22IYI. Students exempted from this course may replace it with higher-level FSL courses of their choice.
2. JFI 225YI, FRE 272YI, FSL 277YI, 34IYI
3. FRE $2 I O Y I / 240 Y I$
4. Two additional FRE courses among the following: FRE $375 \mathrm{YI} / 384 \mathrm{HI} / 385 \mathrm{HI} / 473 \mathrm{HI}$

## French as a Second Language (Arts Program)

## Minor program:

(4 full courses or their equivalent)
I. FSL 22IYI. Students exempted from this course may replace it with higher-level FSL courses of their choice.
2. One 300-level FSL course
3. One 400-level FSL course
4. One other FSL course or FRE 375YI or any 200+-level FRE course, except FRE 480YI. (FSL I2IYI may be included if taken before FSL 22 IYI).

## French Translation (Arts Program)

## Minor program:

(4 full courses or their equivalent)
I. FRE 375YI
2. FRE $480 \mathrm{YI}, 48 \mathrm{IYI}$
3. An additional FRE course at the 200+level

## French Studies (Arts Program)

## Minor program:

(4 full courses or their equivalent)
I. FSL $22 I Y$ I
2. Three FRE courses at the 200+ level including one at the 300/400-level (FSL I2 IYI may be included if taken before FSL 22IYI)

## French Cultural Studies (Arts Program)

## Minor program:

(4 full courses or their equivalent)
Any four FCS full course equivalents including at least one course at the 300/400-level.
Note: For students meeting prerequisites set by other departments/programs, up to 1.5 courses from the following list may be substituted for FCS courses: FAH
$245 \mathrm{HI}, 345 \mathrm{HI}, 346 \mathrm{HI}, 445 \mathrm{HI}, 446 \mathrm{HI}, 447 \mathrm{HI}$; FRE literature courses; HIS 3 I 4 Y I, $387 \mathrm{HI}, 388 \mathrm{HI}, 457 \mathrm{HI}$; JEF IOOYI; JFV 323HI; INI 385YI, 386HI; SMC 228YI

For other programs in French, see also: Drama and French; Modern Languages and Literatures; Linguistics and Languages.

## French Courses

See "Guide to Programs \& Courses" section for Key to Course Descriptions.

For Distribution Requirement purposes all FCS, FRE, and FSL courses are classified as HUMANITIES courses.

## Note: STUDENTS ENROLLED SIMULTANEOUSLY IN TWO OR MORE FRENCH PROGRAMS ARE ALLOWED TO DOUBLE-COUNT ONLY ONE COURSE TOWARDS THEIR FRENCH PROGRAMS.

## Courses Taught in English (see also all FCS courses below)

## HUMI99HI/YI First Year Seminars

Undergraduate seminars that focus on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. May serve as a distribution requirement course; see the First Year Handbook for details.
INI 2I4YI Film Theory 26L, 52P, 26T
See Innis College
INI 384 HI Critical Writing on Film
See Innis College

See Innis College
INI386HI Québec Cinema
See Innis College

JEFIOOYI The Western Tradition 78S
An introduction to literature through major works of the Western literary tradition. What constitutes a literary "classic"? How have the great concerns of the Western tradition - human nature, its place in society, its mythmaking, its destiny - been represented in literature? These and other questions are examined by reference to II-I2 works, from ancient times to the twentieth century, by such authors as Homer, Sophocles, Ovid,Virgil, Dante, Shakespeare, Cervantes, Molière, Austen, Dostoevski, Kafka, Camus, Beckett and Márquez. (A joint course offered by the Departments of English and French; see also JEF IOOYI in the English program listings.)

## JFI225YI Second Language Learning

See Second Language Learning Courses at the end of the Department of French listing.
JFL477HI Issues in French and Linguistics I See French Linguistics Courses

JFL478HI Issues in French and Linguistics II
See French Linguistics Courses
JFV323HI Semotics and Literature
See French Literature Courses
SMC228YI Books and Readers
See St. Michael's College
UNI202HI Aspects of Québec Culture
See University College
VIC 300HI Special Topics: Literary Studies
See Victoria College

VIC 301 HI Special Topics: Literary Studies See Victoria College

NOTE: FCS, JFI, JFL and JFV courses are taught in English with reading and written assignments in English. No knowledge of French is required. However, students can count these courses towards a program in French (Major or Specialist) if they submit all written work and tests in French. These students must, during the first week of class, inform the instructor of their intent to do so.

## FCS: French Cultural Studies Courses

FCS courses are taught in English with written and reading assignments also in English. Some half-courses at the 200/300/400-level have variable contents and may not be offered every year. Please consult the Department website (www.chass.utoronto.ca/french/under) or the Department of French Undergraduate brochure for more details.

## FCSI95HI French Culture from

## Napoléon to Astérix

A multi-media course, analyzing the contributions the French have made to world culture in such domains as architecture, art, literature, and music, as well as some of the implications of the appropriation of French cultural icons by big business and the media.
FCS 290HI Special Topics in French Cultural 26S
Studies I: Pleasures of Versailles:
Music in the Grand Century of France
A survey of the rich musical heritage of France between 1650 and I740, focusing on the composers, performers and instruments in the court of Louis XIV. Intended especially for non-musicians who are passionate about music and wish to explore French cultural history through one of its most dynamic and celebrated facets. Focus on in-class listening, including live performances on historical instruments.

FCS 29IHI Special Topics in French Cultural 26S Studies I: The Art and Culture of the Networked Society
The concept of the Networked Society, with a historical perspective on the development of networking technologies, emphasizing their social and cultural consequences. The actions and the role of artists and cultural activists in various countries. Illustrated with films and other documents, the various dimensions of the Francophone digital culture in and out of Canada, including Africa and Asia.

FCS 292HI Special Topics in French Cultural 26S Studies I: Sex, Love, Desire, etc.
This course will explore the themes of love, sex and desire in French literature through close reading and interpretative analysis of novels from the eighteenth to the twentieth century. A comparative approach using various examples taken from literary texts and film adaptations will explore the concept of love and its many definitions.
FCS297HI Comic Books and French Culture 26S
An examination of the historical, social and cultural status of
French comic books ("bandes dessinées" or "BDs"), based on

English translations of Astérix, Tintin and other contemporary works. Analysis of thematic and narrative structures compared with traditional genres (folktales, myths, plays, novels). (Not offered in 2007-2008).

## FCS298HI French Culture and Asia <br> 26S

From the arrival, in 17th century, of magnificent porcelain from the East to the borrowings of contemporary fashion designers, French culture has been exposed to Asian influences which have become part of the national fabric. This course explores some of these manifestations in literature, film and the arts.

## FCS3IOYI French Cinema <br> 26L, 52P, 26S

Cinema in France with emphasis on theory and practical criticism, on auteurs and movements such as the avant-garde of the twenties and the New Wave of the late fifties. Films shown are subtitled.
Prerequisite: At least 5 course credits in any subject
Recommended preparation: INI II5YI
FCS33IHI Cinema and Literature in France 265 Film adaptations of plays and fiction from the origins of cinema to the present time.
Prerequisite: At least 5 course credits in any subject

## FCS369Y0 The Culture of Touraine <br> (formerly FCS399Y0)

Various aspects of Culture in the region of Tours, e.g. novels by Balzac; Renaissance architecture and gardens as motifs in art, literature, cinema, music or advertising; from Tours to Québec; or Anne Hébert's Touraine. (Offered in Tours only during the summer)
Prerequisite: At least 5 course credits in any subject Exclusion: FCS399Y0

FCS 390HI Special Topics in French Cultural 26S Studies II: Cultural Studies in France: Foucault and after
Introduction to the French tradition of cultural studies through a survey of some of the great French thinkers on culture and history (Foucault, de Certeau, Barthes, Baudrillard, Bourdieu, Derrida, Lyotard, Metz, etc.). The historical and philosophical debates that define the Humanities today.
Prerequisite: At least 5 courses in any subject.
FCS 39IHI Special Topics in French Cultural

## Studies II: Americanization and

Americanness in France and

## Quebecois Literature

This course will focus on the social, cultural and historical elements which have contributed to a certain mythical conception of the American Dream. An introduction to the concept of Americanization and Americanness as it has been represented in French and Quebecois literary texts and films produced during the 20th Century.
Prerequisite: At least 5 courses in any subject.

## FCS 392HI Special Topics in French Cultural

## Studies II: African Cinema

This course will focus on the analysis of film as a social and ideological practice in Africa. It will provide an interdisciplinary look at the development of African cinema from its inception in the 1960's to the present.
Prerequisite: At least 5 courses in any subject.
FCS395HI Sensuality and the French
An investigation of the French reputation for the systematic indulgence of all the senses, from the growth of sensuality-
based industries and services to the discussion of works of high art and popular culture. Also focussing on elements of gender definition and exoticism within the cult of sensuality.
Prerequisite: At least 5 course credits in any subject
FCS490HI/ Special Topics in French 26S
491HI/ Cultural Studies III
492H
In depth study within narrowly focussed topics. (Not offered in 2007-2008).
Prerequisite: At least 10 course credits in any subject
FCS497HI Contemporary Feminisms in
26S

## France and Québec

Various forms of recent feminist thought, theory, and artistic practice, from the 1970 s, focussing on the current situation, characterized by plurality and heterogeneity, and the concern with the intersection of gender, ethnicity and class. (Not offered in 2007-2008).
Prerequisite: At least 10 course credits in any subject

## FRE: French Literature Courses

Some half-courses at the 300/400-level have variable contents and may not be offered every year. Please consult the Department website (www.chass.utoronto.ca/french/under) or the Department of French Undergraduate brochure for more details.

## FRE2IOYI Introduction to Québec Literature and Culture

A study of aspects of Québec culture (art, cinema, language, literature and music) and their role in the evolution of a distinct society. This survey course familiarizes students with the sociohistorical context and way of life of the Québécois in order to better understand and appreciate Québec literature.
Co- or prerequisite: FSLI6IYI (with minimum
77\%)/I8IYI/22IYI or, upon first FRE/FSL enrolment,
equivalent as determined by the French Placement Test
FRE240YI Introduction to Literary Analysis 78S
Techniques of literary criticism and analysis, based on a detailed study of selected novels, drama, and poetry from the 17th century to the present.
Co- or prerequisite: FSLI6IYI (with minimum
$77 \%) / I 8 I Y I / 22 I Y I$ or, upon first FRE/FSL enrolment,
equivalent as determined by the French Placement Test
FRE250YI Literary History in Context 52S
The evolution and major trends of French literature from the Middle Ages to modern times set against their historical background and studied through representative texts, selected both for their historical importance and their relevance to modern readers - novels, plays, poetry, short stories.
Prerequisite: FSLI6IYI (with minimum 77\%)/I8IYI/22IYI or, upon first FRE/FSL enrolment, equivalent as determined by the French Placement Test

## FRE299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See Section on "Research Opportunity Program" for details.

FRE304HI
Women and Literature I: Women Writers
An analysis of selected texts by women writers, emphasizing particular themes and textual strategies used to represent the
female subject, her relationship to language, her reality and world view. (Not offered in 2007-2008; offered in alternate years)
Prerequisite: FRE 240YI

## FRE305HI Women and Literature II: Women Writers of the Twentieth Century

This course will examine French prose fiction by women written in the latter quarter of the twentieth century, during which an unprecedented number of texts by women writers were published. Texts representing different women's issues in contemporary society will be analyzed.
Prerequisite: FRE 240Y।
FRE 308HI From Manuscript to the 26S Printed Word
With a view to understand the process that transforms "texts" into "books", this course will contrast the French and AngloSaxon schools of book history and material bibliography, and analyze the evolution of various technical innovations and their impact on the emergence of mass culture since the 1500s. (Not offered in 2007-2008).
Prerequisite: FRE 240Y।
FRE 309HI Reading, Writing and Publishing 26S in Nineteenth-Century France
This course will investigate the social history of the context and the construction of the literary text in nineteenth-century France: how and why one writes, reads and/or publishes will be the focus of this course. The history of reading and publishing, as well as the history of the 19th century press will be examined. (Not offered in 2007-2008).
Prerequisite: FRE 240YI
FRE 3IIHI Advanced topics in Quebec
Literature I: Story Telling with

## Words and Images

(formerly FRE4IOHI)
The relationship between literary texts and images in Québécois literature is an important narrative strategy used by numerous writers to "tell stories". The focus will be on the use of photography, illustrations, paintings and cinematographic images by a number of 20th century Québécois authors.
Prerequisite: FRE 240 Y I or FRE 210 YI
Exclusion: FRE $410 \mathrm{H} / 4 \mathrm{IIH}$
FRE 3I3HI Advanced topics in Quebec

## Literature II: Diaries of

Women Writers
(formerly FRE4IIHI)
This course aims to investigate the textual strategies which support the construction of autobiographical subjects in the diaries of certain well-known contemporary French and Québécois writers. (Not offered in 2007-2008; offered in alternate years)
Prerequisite: FRE 240YI or FRE 210YI
Exclusion: FRE 410H/4IIH
FRE3I4HI From Modernism to
Postmodernism: Contemporary Québec Literature
Québec postmodern literature speaks of vitality, liberating forces, and creativity. This course explores the textual forms and themes that challenge tradition and authority in contemporary writing.
Prerequisite: FRE 240YI or FRE 2IOYI

## FRE3I9HI Literature of the Renaissance (formerly FRE4I9HI)

Rabelais' carnavalesque vision of the world, Ronsard's worship of Beauty, the cruel and bloody tragedy of Garnier, Montaigne's exploration of the self. A study of selected writers of the 16th century, an age of crucial epistemological shifts and of exploration by poets, artists, and humanists. (Not offered in 2007-2008; offered in alternate years).
Prerequisite: FRE 240YI
Exclusion: FRE 419HI
FRE320HI The I7th Century:The Rise 52S of Classicism
(formerly FRE320YI)
Essential works of literature from the "Grand Siècle," including court poetry, plays by Corneille, Molière and Racine and some of the earliest narratives written for and by women, explored within the social framework of Europe's most highly refined cultural period.
Prerequisite: FRE 240YI
Exclusion: FRE 320YI
FRE32IHI Ardour and Armour in $26 S$
Medieval France
(formerly FRE420HI)
Religious fervour, war, chivalry, romance and ribald humour are just some of the themes found in selected texts from the French Middle Ages; readings in modern translations with appropriate reference to the original language.
Prerequisite: FRE 240YI
Exclusion: FRE 420HI

| FRE322HI | The 18th Century:The Age of <br>  <br> Enlightenment <br> (formerly FRE322YI) |
| :--- | :--- |

At the forefront of the present cultural and political organization of the West, I8th century France defined individual and collective subjectivities (individualism, gender roles, democracy). This course explores these issues in their original context through the work of authors such as Rousseau, Voltaire, Sade, Laclos, Graffigny, and Beaumarchais. (Not offered in 20072008; offered in alternate years).
Prerequisite: FRE 240YI
Exclusion: FRE 322YI

## JFV323HI Semiotics and Literature I

26S
The study of readings from major French literary semioticians will be combined with the practical application of theory to the analysis of selected literary texts. This course is taught in English. (Not offered in 2007-2008; offered in alternate years). Prerequisite: At least 5 course credits in any subject.
Recommended preparation: FRE240YI/VICI20YI
FRE324HI The 19th Century: 19th Century 26S France
(formerly FRE324YI)
The course will cover the period from the French Revolution to the Dreyfus Affair, that is from the romantic movement to the naturalist and decadent movements. Combining sociointellectual history, the study of literary movements and their major authors, and the analysis of literary forms and genres, the course will examine the fundamental changes which took place in the literary imagination and in its expressions throughout the century.
Prerequisite: FRE 240YI
Exclusion: FRE 324YI

## FRE325HI The 18th Century:The Book in the French Enlightenment

This course will provide an overview on the history of the book in France in the 18th Century in order to allow for a closer inquiry into the publishing adventure of the Encyclopédie of Diderot and D'Alembert, arguably the biggest publication undertaking of its time.
Prerequisite: FRE 240Y।

## FRE326HI The 20th Century: From

Surrealism to Post-modernism and Beyond
(formerly FRE326YI)
Characterized by experimentation and by the crisis of representation, 20th century French literature has undergone numerous transformations in form, content, and generic boundaries. This course studies these literary movements, trends, and transgressions in poetry, prose, and theatre. (Not offered in 2007-2008; offered in alternate years).
Prerequisite: FRE 240YI
Exclusion: FRE 326YI

## FRE332HI Francophone Literature I

An introduction to francophone literature through different approaches - textual, ideological, historical. Students will be introduced to the works of francophone writers. (Not offered in 2007-2008; offered in alternate years).
Prerequisite: FRE 240 Y I

## FRE 340HI Literature and Society

Lectures and discussions in this course will focus on the conceptualizations of the multifaceted relationship between literature and society, both from an external perspective (study of the cultural fields, of the institutions, of the social networks, of the sociology of edition and reading) and an internal perspective (the inscriptions of the social world in text and in discourse). (Not offered in 2007-2008).
Prerequisite: FRE 240YI

## FRE364HI The 19th Century:The Golden 26S <br> Age of the Novel <br> (formerly FRE364YI)

The ways in which such writers as Balzac, Stendhal, Flaubert, Maupassant, and Zola developed the techniques of the novel while exploring such themes as ambition, alienation, and class struggle.
Prerequisite: FRE 240YI
Exclusion: FRE 364YI
FRE 370Y0 Language Study
Offered in Nantes only.
Prerequisite: Any 200-series FRE/FSL course.
FRE 37 IYO Medieval French Literature
Offered in Nantes only.
Prerequisite: FRE 240YI
FRE 372Y0 French Theatre of the 19th and 20th Centuries
Offered in Nantes only.
Prerequisite: FRE 240Y।
FRE 373Y0 French Thought of the 17th and 18th Centuries
Offered in Nantes only
Prerequisite: FRE 240YI

## FRE 374Y0 French Civilization from the 18th Century to Today

Offered in Nantes only.
Prerequisite: FRE 240YI
FRE398H0/ Independent Experiential Study Project 399Y0
An instructor-supervised group project in an off-campus setting. See Section on "Independent Experiential Study Program" for details.
FRE 4I2HI Francophone Cinema: French 26S Cinema and Nation
The course is a survey of the representations of national identity in French cinema from its origins to the present.
We will examine the stereotypes which foster the myth of
"frenchness" (history, love, food, landscapes, etc).
Prerequisite: FRE 240YI
Recommended preparation: one 300+ series FRE Literature course

## FRE43IHI Francophone Literature II 26S

Through different approaches - textual, ideological, historical, students will be introduced to the works of francophone writers. (Not offered in 2007-2008).
Prerequisite: FRE 240YI
Recommended preparation: One 300+ series FRE Literature course

## FRE438HI Advanced Topics in French 26S

 Studies I: Vision of the Orient in the Francophone LiteratureIn this course, we will seek to relate the representation of Oriental cultures in Francophone literature to social, political and economic factors. We will also survey changing attitudes among Francophone Oriental heritage.
Prerequisite: FRE 240YI
Recommended preparation: One 300+ series FRE literature course
FRE439HI Advanced Topics in 26S

## French Studies II

An advanced seminar dedicated to specific issues of French
literature and culture. Focusing on an author, a literary genre, or based on a multidisciplinary approach involving cinema, arts and music, each seminar reflects the professor's current research. (Not offered in 2007-2008; offered in alternate years).
Prerequisite:Varies according to particular course offering; consult the Department website (www.chass.utoronto. ca/french/under) or the Undergraduate brochure for exact prerequisites.
FRE 44IHI Aspects of Francophone 26S World I: Le roman policier
An advanced seminar dedicated to specific issues of the Francophone literature and culture. Focusing on an author, a literary genre, or based on a multidisciplinary approach involving cinema, arts and music, each seminar reflects the professor's current research.
Prerequisite: FRE 240YI
Recommended preparation: One 300+ series FRE Literature course.

FRE 442HI Aspects of Francophone 26S World II
An advanced seminar dedicated to specific issues of the Francophone literature and culture. Focusing on an author, a literary genre, or based on a multidisciplinary approach
involving cinema, arts and music, each seminar reflects the professor's current research. (Not offered in 2007-2008; offered in alternate years).
Prerequisite: FRE 240Y।
Recommended preparation: One 300+ series FRE Literature course.
FRE 444HI Literary Theory 26S
An introduction to literary theory through the study of particular theories underlying specific approaches to the literary text, problems central to any theory of literature or the writings of a given critic or theoretician.
Prerequisite: FRE 240YI
Recommended preparation: One 300+ series FRE Literature course.
FRE449HI French Poetry 26S
This course will stress specific trends in French poetry and will study the works of major poets in the context of a broader socio-cultural perspective. (Not offered in 2007-2008).
Prerequisite: FRE 240Y।
Recommended preparation: One 300+series FRE Literature course.

## FRE450HI The Sablé Centre Seminar 26S

 in 19th Century French Studies IThis seminar is dedicated to specific issues of French literature and culture, in the context of research activities currently taking place at the Joseph Sablé Centre for 19th Century French Studies. Also listed in the offerings of the Graduate Department of French. (Not offered in 2007-2008; offered in alternate years). Prerequisite: FRE240YI, one 300+ series FRE Literature course
Recommended preparation: One additional 300+ series FRE Literature course

## FRE45IHI The Sablé Centre Seminar in 19th 26S Century French Studies II:The Critical Edition: Principles \& Practice

This seminar is dedicated to specific issues of French literature and culture, in the context of research activities currently taking place at the Joseph Sablé Centre for 19th Century French Studies. Also listed in the offerings of the Graduate Department of French.
Prerequisite: FRE240YI, one 300+ series FRE Literature course Recommended preparation: One additional 300+ series FRE Literature course

## French Linguistics Courses

FREI72HI French Grammar, within Reason 39S
An introduction to basic concepts of the grammar of French from an analytic point of view. This course is useful to anyone wishing to undertake a program in French Studies or wishing to improve their knowledge of French as a Second Language. Prerequisite: FSLI2IYI or, upon first FRE/FSL enrolment, equivalent as determined by the French Placement Test
FRE272YI The Structure of Modern French: An Introduction
A descriptive study of contemporary French: phonetics and phonology, morphology, syntax, and semantics. Theoretical discussion in general linguistics.

Prerequisite: FSLI6IYI(77\%)/I8IYI/22IYI or, upon first FRE/ FSL enrolment, equivalent as determined by the French Placement Test
FRE273YI General History of the $52 S$ French Language
The changes by which the Latin spoken in northern Gaul became today's French. Phonetic, morphological, syntactic and semantic evolution; regional, dialectical and social variations; the question of French in Canada; attitudes of writers, grammarians, and scholars; political and social history.
Prerequisite: FSLI6IYI(77\%)/I8IYI/22IYI or, upon first FRE/ FSL enrolment, equivalent as determined by the French Placement Test

FRE376HI French Phonology and Phonetics 26S
A study of the phonological system of modern French based on actual samples of speech taken from different regional varieties and socio-economic groups.
Prerequisite: FRE272YI
FRE378HI French Syntax 26S
A study of the distribution and relationships of the syntagmatic components of contemporary French. The sentential structure, including the principles of coordination, subordination and expansion. Theoretical approaches.
Prerequisite: FRE272YI
FRE386HI French Semantics $26 S$
Various approaches to the notion of meaning; its functioning at all levels of representation.
Prerequisite: FRE272YI
FRE387HI French Morphology 26S
A study of the morphological system of modern French, its relationship to syntax and phonology; theoretical notions derived from the analysis of specific data.
Prerequisite: FRE272YI
FRE47IHI Medieval French Language 26S
Characteristic features of French phonology, grammar and vocabulary up to 1500; analysis of extracts from principal genres, periods and geographic areas. Also listed in the course offerings of the Graduate Department of French.
Prerequisite: FRE272YI/273YI
FRE 473HI The Acquisition of French 26S
A study of the first and second language acquisition of French
syntax, phonology and morphology.
Prerequisites: FRE $376 \mathrm{HI}, 378 \mathrm{HI}$.
JFL477HI Issues in French and Linguistics I 26S
An advanced seminar on issues of current theoretical relevance in second language phonetics and phonology, with special reference to English and French. In this course, we will examine the phonetic and phonological systems of non-native speakers in order to describe and explain the nature and sources of foreign accent.
Prerequisite: Any 300+ series LIN or FRE Linguistics course
JFL478HI Issues in French and Linguistics II 26S
An advanced seminar on issues of current theoretical relevance in linguistics with special reference to French. This course is taught in English. (Not offered in 2007-2008; offered in alternate years).
Prerequisite: Any 300+ series LIN or FRE Linguistics course

## FRE479HI Sociolinguistics of French

The relationship between language use and social factors such as socio-economic status, types of situation and gender of speaker. Theoretical notions are derived through the analysis of specific data, focusing on Canadian French and other varieties spoken in the Americas.
Prerequisite: FRE272YI
FRE488H I Special Topics in Advanced 26S Linguistics I: Linguistic foundations of second language pronunciation teaching
This course will examine the extent to which common pronunciation teaching methods are supported by experimental research on second language phonetics and phonology. Prerequisite: FRE 376H

## FRE 489HI Special Topics in Advanced 26S Linguistics II

An advanced seminar on theoretical and comparative approach to the study of various syntactic constructions in French, including especially the pronominal system. Treatment of dialect variation within the Romance continuum from a theoretical and empirical point of view. Also listed in the offerings of the graduate department of French. (Not offered in 2007-2008). Prerequisite:Varies according to particular course offering; consult the Department website (www.chass.utoronto. ca/french/under) or the Undergraduate brochure for exact prerequisites.

## French Translation Courses

FRE375Y I Comparative Stylistics 52 S
A comparative study of the characteristics of French and English expression and how they pertain to the problems of translation. Prerequisite: FSL28IYI/34IYI/any FRE 200-series course

## FRE480YI Translation: French to English 52S

Intensive translation from French to English. Texts are drawn from diverse fields: literature, business, economics, politics, science, art, and advertising.

## Prerequisite: FRE375YI

FRE48IYI Translation: English to French $52 S$
Intensive translation from English to French. Texts are drawn from diverse fields: literature, business, economics, politics,
science, art and advertising.
Prerequisite: FRE375YI

## Independent Study Courses

## FRE490YI Senior Essay

An independent research paper on either a literary or linguistic topic to be proposed by the student and supervised by an instructor, culminating in a major research paper.
Prerequisite: Permission of Department
FRE49IHI/ Independent Study

## 492HI

A scholarly project supervised by a member of staff on a literary or linguistic topic of common interest including readings, discussions, and papers.
Prerequisite: Permission of Department

## French as a Second Language Courses (FSL) Note

The following is a guide for beginners in French.
I. No knowledge of French: FSL 100HI. Students enrolled in FSL 100 HI , whose command of French raises doubt about their bona fides as beginners, will be asked to do the online placement test and may be moved to a higher level FSL course.
2.Very limited knowledge of French (Placement Test required): FSL 102 HI

The Department reserves the right to place students in the language course appropriate to their level of language skills, based on the results of a placement test. Since I00, 200, 300 and 400-level FSL courses correspond to levels of competence in French, a student may be recommended to enroll in a course at a level higher than his/her year of study. The placement test is mandatory for all students who register in an FRE or FSL course for the first time. It is available online at www. lang.utoronto.ca/placement/french and can be taken on any computer properly equipped to manage sound files. Students who do not have access to such a computer should write to french.placement@utoronto.ca and make an appointment to take the test at the Multimedia Centre. The test must be taken prior to registration and at the latest by the end of the first week of classes in order to insure enrolment in the appropriate course.

FSLI00HI French for Beginners 39L, I3P
An intensive basic course in spoken and written French for students who have no knowledge of French: comprehension, speaking, reading, and writing.
Prerequisite: None
Exclusion: FSLIOIHI and higher.
FSLI02HI Introductory French 39L, I3P
An intensive basic course in spoken and written French for students who have studied some French, but who have not yet attained the entry level for FSLI2IYI.
Prerequisite: FSLIOOHI/FSLIOIHI or, upon first FRE/FSL enrolment, equivalent as determined by the French Placement Test.
Exclusion: FSL 12 IYI and higher.
FSLI2IYI French Language I 26L, 52T, 26P
Written and spoken French, reinforcing oral/aural competence, reading comprehension, and writing skills.
Prerequisite: FSL 102 HI , or, upon first FRE/FSL enrolment, equivalent as determined by the French Placement Test. Exclusion: FSLI6IYI and higher.
FSL 22 IYI French Language II 52L, 26P (formerly FSLI6IYI/I8IYI)
A 3-hour per week course open to all students. Required for all students wishing to complete a minor or major program in French. Emphasis is placed on the development of written and oral comprehension and expression through a variety of approaches to language learning. Required for all students wishing to complete a minor, major or specialist program in French.
Prerequisite: FSL I2IYI or, upon first FRE/FSL enrolment, equivalent as determined by the French Placement Test.

## French

## Exclusion: FSL I6IYI and higher

## FSL277YI French Pronunciation 52L, 26P

A study of the French sound system with the goal of improving students' pronunciation both in reading and everyday speech. Features to be examined include vowels, consonants, stress, liaison, the E caduc and intonation in both Canadian and European varieties. Theoretical concepts learned will be put into practice via structured exercises and weekly lab sessions.
Prerequisite: FSLI6IYI/I8IYI/22 IYI
Exclusion: FRE277YI/Not open to fluent or native speakers of French, as determined by the results of the in-class Oral Proficiency Test to be taken during the first two weeks of classes.

## FSL33IYI Practical French I 78S

(formerly FSL26IYI)
Emphasis is placed on both reading and listening comprehension, expression, both written and oral, and independent learning. Particularly intended for students who wish to maintain and improve their general knowledge of French without wishing to specialize.
Prerequisite: FSLI6IYI/I8IYI/22IYI or, upon first FRE/FSL enrolment, equivalent as determined by the French Placement Test
Exclusion: FSL 26IYI/28IYI/34IY and higher
FSL34IYI Language Practice I: Written and Oral French (formerly FSL28IYI)
This course is designed for those who wish to improve their written expression with textual study and develop their oral and aural skills. The course is also designed for students who want to specialize or major in French studies.
Prerequisite: FSLI6IYI(77\%)/I8IYI/22IYI or, upon first FRE/
FSL enrolment, equivalent as determined by the French Placement Test
Exclusion: FSL 26IYI/28IYI/33IYI and higher

## FSL362YI La Francophonie

An advanced course in practical French (reading, writing, listening, speaking), aimed at broadening understanding of the range of cultures and societies of the francophone world, based in part on multimedia resources available in French, including those of the Internet.
Prerequisite: Any 200-series FSL course or, upon first FRE/
FSL enrolment, equivalent as determined by the French
Placement Test.
Exclusion: FSL 46IYI and higher
FSL366HI Business French 39S
A study of vocabulary, grammar and writing techniques involved in business situations, including cross-cultural transactions. Students may be introduced to business-oriented multimedia resources, including those of the Internet.
Prerequisite: Any 300-series FSL course or, upon first FRE/
FSL enrolment, equivalent as determined by the French
Placement Test.
Exclusion: FSL 46IYI and higher

## FSL43IYI Practical French II

Emphasis is placed on both reading and listening comprehension, expression, both written and oral, and independent learning. Particularly intended for students who wish to maintain and improve their general knowledge of French without wishing to specialize.

Prerequisite: FSL $26 / \mathrm{YI} / 28 \mathrm{IYI} / 33 \mathrm{IYI} / 34 \mathrm{I} \mathrm{Y}$ or, upon first FRE/FSL enrolment, equivalent as determined by the French Placement Test.
Exclusion: FSL 38IYI and higher; FSL36IYI
FSL442HI Language Practice II:

This course is designed for students who want to consolidate the writing skills they already had acquired as students specializing in French Studies.
Prerequisite: FSL28IYI/34IYI or, upon first FRE/FSL enrolment, equivalent as determined by the French Placement Test
Exclusion: FSL36IYI and higher
FSL443HI Language Practice II: 39S
Oral French
(formerly FSL383HI)
This course is designed for students who want to consolidate the oral skills they already acquired as students specializing in French Studies.
Prerequisite: FSL28IYI/34IYI or, upon first FRE/FSL enrolment, equivalent as determined by the French Placement Test.
Exclusion: FSL 36 IYI and higher
FSL46IYI Practical French III 78S
For students who wish to improve their general knowledge of French while specializing in other fields of study.
Prerequisite: FSL $43 \mathrm{IYI} / 442 \mathrm{HI}, 443 \mathrm{HI}$, upon first FRE/FSL enrolment, equivalent as determined by the French Placement Test.

## Second Language Learning Courses

JFI225YI Second Language Learning
A theoretical and practical consideration of the ways we learn a second language, with a historical overview and critical evaluation of the various methodologies that have been developed; the role of cultural studies in language learning; practical evaluation and development of syllabus, course and textbook materials. This course is taught in English.
Prerequisite: FSLI6IYI(77\%)/I8IYI/22IYI or, upon first FRE/ FSL enrolment, equivalent as determined by the French Placement Test

FRE384HI Teaching French as a 26S Second Language
Since 1970 the term "communicative approach" has been used to refer to various ways of teaching and learning FSL. The aim of this course is to attempt to clarify the notions involved in the communicative approach and examine theoretical issues and pedagogical implications related to it.
Prerequisite: FRE272YI
FRE385HI Teaching Young People's
Analysis of bibliographical tools available for the selection of literary materials for the FSL classroom. Study of representative works of interest to young people such as novels, detective stories, cartoons, with special emphasis on socio-cultural aspects. Critical analysis of various pedagogical approaches. Prerequisite: FRE384HI

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V.B. Robinson, MS, Ph D (University of Toronto

Mississauga)
S. Ruddick, MA, Ph D
R. Silvey, MA, Ph D

## Assistant Professors

G. Arhonditsis, M Sc, Ph D (S)
N. Basiliko, B Sc, Ph D (University of Toronto Mississauga)
A. Boland, MAIS, Ph D
R. Buliung, MA, Ph D (University of Toronto Mississauga)
D. Cowen, M, PI, PhD
T. Conway, MS, Ph D (University of Toronto Mississauga)
S.A. Cowling, M Sc, Ph D
P. Desrochers, Ph D (University of Toronto Mississauga)
J. Dunn, MA, Ph D
M. Farish, BA. Ph D
S. Finkelstein, M PHL, Ph D
P. Hess, MEP, Ph D
M. Hunter, MA, Ph D (S)
T.V. Kepe, BA, M Sc, Ph D (S)
K. MacDonald, MA, Ph D (S)
M. Mahtani, BA, Ph D (S)
D. McGregor, MES, Ph D
M.J. Simpson, B Sc, Ph D (S)
A. Sorensen, M Sc, Ph D (S)
S. Wakefield, MA, Ph D
A. Walks, MA, Ph D (University of Toronto Mississauga)
M.Wells, B Sc, Ph D (S)
K. Wilson, MA, Ph D (University of Toronto Mississauga)

## Senior Lecturers

D. Boyes, M Sc, Ph D
B. Murck, BA, Ph D (University of Toronto Mississauga)

Geography is the study of the environments created on the earth's surface by nature and people. The physical and biological elements of these environments, as well as their economic and social structure, historical development, spatial organization, interrelationships, management and planning form the subject matter of Geography. Geography, therefore, relates closely to other fields in natural science, social science and the humanities, and geographers take courses in these related fields along with their geography courses. Students specializing in other subjects often select one or more geography courses to deepen their understanding of the resource base, culture and economy of those parts of the world in which they are interested.

Employment opportunities for geographers exist in many branches of international organizations, government, industry, and education. Geographers work at all levels of government service, especially in agencies responsible for environmental management; land and resource analysis; development of historic districts and sites; urban transportation planning; regional economic planning; trade promotion; geographic systems design and data analysis; transport network design and the processing of archival, survey, and cartographic information. In business, geographers work in marketing, locational analysis, resource development, and in consulting firms engaged in project evaluation, land use planning and natural heritage conservation.

Students studying Geography may take either an H.B.A. or H.B.Sc., depending upon the aspects they wish to emphasize.

## Geography

The Department offers several Specialist, Major and Minor Programs in Geography, cooperates in offering a combined program with Economics, shares with Ecology and Evolutionary Biology a program in Biogeography, and contributes courses to various departmental and college programs including American Studies; Anthropology; Archaeology; Canadian Studies and Peace and Conflict Studies; Equity Studies; Centre for Environment; Environmental Geosciences; and Urban Studies; Ethics, Society and Law and International Relations; and European Studies. Counselling and advice may be obtained from the Undergraduate Coordinator or the Undergraduate Counsellor.

Undergraduate Coordinator:
Professor D. Harvey, Sidney Smith Hall, Room 5032 (4I6-9781588)

Student Counsellor:
S. Calanza, Sidney Smith Hall, Room 5050 (4I6-978-6455)

General Enquiries:416-978-3375

## Geography Programs

Enrolment in Minor, Major and Specialist programs sponsored by the Department of Geography requires the completion of four courses, including one of GGR I00YI, I07YI, or I24YI. Entry requirements to all Specialist programs is a CGPA of 2.5. Entry requirements for all Major programs is a CGPA of 2.0 or $67 \%$ in I.0 GGR FCE at the 100 or 200 level. Double majors in Geography must complete at least 13 different GGR/JAG/JFG/ JGF/JGI/JUG/JEG credits (only I. 0 overlap). Students combining any of our Minor programs with a Specialist/Major program would normally be allowed to count only I. 5 credits (of the 4.0 courses in the Minor program) towards both programs.

## Note

The general Geography major program is excluded from the arrangement whereby students in a four-year degree may take two major programs sponsored by the Department of Geography.

## Biogeography (Science program)

## Specialist program:

( 13 full courses or their equivalent, including at least one 400series course)

## Entry Requirements:

Students must have a CGPA of 2.5
First Year:
I. BIO I50YI; GGR I00YI; CHM $(138 \mathrm{HI}, \mathrm{I} 39 \mathrm{HI}) / I 5 \mathrm{IYI} / \mathrm{CSC}$ (I08HI, 148HI)
2. At least one of: JMB I70YI/MAT I35YI/I37YI/PHY IIOYI/I38YI/I40YI
Higher Years:
I. Two of: GGR $201 \mathrm{HI}, 203 \mathrm{HI}, 205 \mathrm{HI}, 206 \mathrm{HI}$
2. BOT $25 \mathrm{I} \mathrm{YI} / Z O O 252 \mathrm{YI}$; GGR $270 \mathrm{HI} / \mathrm{STA} 220 \mathrm{HI}$
3. ENV $234 \mathrm{YI} /$ two of $\mathrm{BIO} 3 \mathrm{I} 9 \mathrm{HI}, 32 \mathrm{IHI}, 323 \mathrm{HI}, 324 \mathrm{HI}$, 328 HI
4. One full course equivalent from: BOT $300 \mathrm{HI}, 307 \mathrm{HI}$, $3 \mathrm{IOHI} ; Z O O 265 \mathrm{YI}, 304 \mathrm{HI}, 309 \mathrm{YI}, 36 \mathrm{HI}, 373 \mathrm{HI}, 384 \mathrm{HI}$, 387HI, 389HI
5. GGR $305 \mathrm{HI}, 3 \mathrm{IOHI}$
6. Two full course equivalents from $\mathrm{BIO} / \mathrm{BOT} / \mathrm{ZOO}$ at the 300+ level
7. I.5 full course equivalent from GGR at the $300+$ level

## Note:

Of the 3.5 courses from $\mathrm{BIO} / \mathrm{BOT} / \mathrm{ZOO}$ and GGR, 1.0 must be at the 400 -level

## Environment and Resource Management (Arts program)

## Specialist program:

(IO full courses or their equivalent, including at least one 400series course)

## Entry Requirements:

Students must have a CGPA of 2.5
First Year:
One course from Group A (GGR IO7YI recommended)
Higher Years:
I. GGR $233 \mathrm{YI} / J G E 22 I Y I ; G G 270 \mathrm{HI}, 27 \mathrm{IHI}, 272 \mathrm{HI}, 393 \mathrm{HI}$
2. GGR $49 \mathrm{IYI} /$ two of GGR $409 \mathrm{HI}, 4 \mathrm{I} 5 \mathrm{HI}, 4 \mathrm{I} 8 \mathrm{HI}, 450 \mathrm{HI}$, $45 \mathrm{IHI}, 492 \mathrm{HI}, 498 \mathrm{HI}, 499 \mathrm{HI}$
3. One additional half course from Group B
4. 4.5 courses from: GGR $220 \mathrm{YI}, 256 \mathrm{HI}, 305 \mathrm{HI}, 307 \mathrm{HI}$, $3 \mathrm{I} 4 \mathrm{HI}, 33 \mathrm{IHI}, 332 \mathrm{HI}, 333 \mathrm{HI}, 334 \mathrm{HI}, 335 \mathrm{HI}, 338 \mathrm{HI}$, $342 \mathrm{HI}, 343 \mathrm{HI}, 390 \mathrm{HI}, 39 \mathrm{IHI}, 409 \mathrm{HI}, 4 \mathrm{I} 5 \mathrm{HI}, 4 \mathrm{I} 8 \mathrm{HI}$, $42 \mathrm{IHI}, 439 \mathrm{HI}, 450 \mathrm{HI}, 45 \mathrm{IHI}, 456 \mathrm{HI} / E N V 236 \mathrm{YI} /$ ENV440YI/JUG $320 \mathrm{HI} /$ JAG 32 IHI . Of the 4.5 courses, additional options include: up to $I .5$ courses from Group C; up to 1.0 courses from Group B/a second course from Group A.

## Major program:

(7 full courses or their equivalent)

## Note:

The general Geography major program is excluded from the arrangement whereby students in a four-year degree may take two major programs sponsored by the Department of Geography

## Entry Requirements:

Students must have a CGPA of 2.0 or obtain $67 \%$ in I. 0 GGR FCE at the 100 or 200 level

## First Year:

One course from Group A (GGR IO7YI recommended)
Higher Years:
I. GGR $233 \mathrm{YI} / J G E 22$ IYI; GGR $270 \mathrm{HI}, 27 \mathrm{IHI}$
2. 4.0 courses from last option list in Specialist program above

## Geography (Arts program)

## Specialist program:

(IO full courses or their equivalent, including at least one 400series course)

## Entry Requirement:

Students must have a CGPA of 2.5
First Year:
One course from Group A
Higher Years:
I. GGR $270 \mathrm{HI}, 27 \mathrm{IHI}, 272 \mathrm{HI}$
2. GGR $49 \mathrm{IYI} /$ two of GGR $409 \mathrm{HI}, 4 \mathrm{I} 3 \mathrm{HI}, 4 \mathrm{I} 5 \mathrm{HI}, 4 \mathrm{I} 8 \mathrm{HI}$, $43 \mathrm{IHI}, 439 \mathrm{HI}, 446 \mathrm{HI}, 450 \mathrm{HI}, 45 \mathrm{IHI}, 452 \mathrm{HI}, 457 \mathrm{HI}$, $458 \mathrm{HI}, 459 \mathrm{HI}, 492 \mathrm{HI}, 498 \mathrm{HI}, 499 \mathrm{HI}$
3. One additional half course from Group B
4. $6.0 \mathrm{GGR} / \mathrm{JAG} / \mathrm{JFG} / \mathrm{JGF} / \mathrm{JGI} / \mathrm{JUG} / \mathrm{JGE} / \mathrm{ENV} 236$ Y courses with no more than one additional course from Group A.

## Major program:

(7 full courses or their equivalent)
Note:
The general Geography major program is excluded from the arrangement whereby students in a four-year degree may take two major programs sponsored by the Department of Geography.

## Entry Requirement:

Students must have a CGPA of 2.0 or obtain $67 \%$ in 1.0 GGR FCE at the 100 or 200 level

First Year:
One course from Group A
Higher Years:
I. GGR $270 \mathrm{HI}, 27 \mathrm{IHI}$
2. $5.0 \mathrm{GGR} / \mathrm{JAG} / \mathrm{JFG} / \mathrm{JGF} / \mathrm{JGI} / \mathrm{JUG} / \mathrm{JGE} / \mathrm{ENV} 236 \mathrm{Y}$ courses of which at least 3.0 must be at the 300-400 level, and with no more than one additional course from Group A

## Minor program:

(4 full courses or their equivalent)
I. One course only from Group A
2. Three other higher level GGR/JAG/JFG/JGI/JUG/JGE/ ENV236Y courses, including at least one 300/400-series course

## Geographic Information Systems (Arts program)

## Note:

Students combining this program with a Specialist/Major sponsored by the Department of Geography will normally be allowed to count only 1.5 (of the 4.0) credits towards both programs.

## Minor program:

(4 full courses or their equivalent)
. One course from Group A
2. GGR $270 \mathrm{HI}, 272 \mathrm{HI}, 273 \mathrm{HI}, 373 \mathrm{HI}$
3. One half course from GGR $462 \mathrm{HI}, 473 \mathrm{HI}$
4. One of GGR337HI, $37 \mathrm{IHI}, 4 \mathrm{I} 3 \mathrm{HI}, 462 \mathrm{HI}, 473 \mathrm{HI}$, JFG470HI, 475HI

## Geography and Economics - See Economics

## Historical and Cultural Geography (Arts program)

## Specialist program:

(10 full courses or their equivalent, including at least one 400series course)

## Entry Requirement:

Students must have a CGPA of 2.5
First Year:
One course from Group A (GGR IO7YI recommended)
Higher Years:
I. GGR $240 \mathrm{HI}, 270 \mathrm{HI}, 27 \mathrm{IHI}, 272 \mathrm{HI}, \mathrm{GGR} 39 \mathrm{IHI}$
2. GGR $49 \mathrm{IYI} /$ two of GGR $42 \mathrm{IHI}, 439 \mathrm{HI}, 457 \mathrm{HI}, 492 \mathrm{HI}$, 499 HI
3. One additional half course from Group B
4. 5.5 courses from: GGR $2 \mathrm{I} 6 \mathrm{HI}, 239 \mathrm{HI}, 246 \mathrm{HI}, 249 \mathrm{HI}$, $254 \mathrm{HI}, 336 \mathrm{HI}, 340 \mathrm{HI}, 342 \mathrm{HI}, 343 \mathrm{HI}, 344 \mathrm{HI}, 347 \mathrm{HI}$, $348 \mathrm{HI}, 350 \mathrm{HI}, 360 \mathrm{HI}, 36 \mathrm{HI}, 362 \mathrm{HI}, 363 \mathrm{HI}, 364 \mathrm{HI}$, $366 \mathrm{HI}, 368 \mathrm{HI}, 39 \mathrm{IHI}, 42 \mathrm{IHI}, 439 \mathrm{HI}$; JUG 320 HI ; JAG 32 IHI . Of the 5.5 courses, additional options include up to $I .0$ courses from Group B and a second course from Group A.

## Major program:

(7 full courses or their equivalent)
Note:
The general Geography major program is excluded from the arrangement whereby students in a four-year degree may take two major programs sponsored by the Department of Geography

## Entry Requirement:

Students must have a CGPA of 2.0 or obtain $67 \%$ in I. 0 GGR
FCE at the 100 or 200 level
First Year:
One course from Group A (GGR IO7YI recommended)
Higher Years:
I. GGR $240 \mathrm{HI}, 270 \mathrm{HI}, 27 \mathrm{IHI}$
2. 4.5 courses from last option list in Specialist program above

## Physical and Environmental Geography (Science program)

## Specialist program:

(12 full courses or their equivalent, including at least one 400series course)

## Entry Requirement:

Students must have a CGPA of 2.5
First Year:
I. One course from Group A (GGR IOOYI strongly recommended)
2. MAT I35YI/I37YI/PHY IIOYI/I38YI/I40YI
3. One course from: BIO $150 \mathrm{YI} / C H M 137 \mathrm{YI} /(I 38 \mathrm{HI}$, I39HI)/I5IYI
Higher Years:
4. Three of: GGR $20 \mathrm{IHI}, 203 \mathrm{HI}, 205 \mathrm{HI}, 206 \mathrm{HI}$
5. GGR $270 \mathrm{HI}, 272 \mathrm{HI}, \mathrm{GGR} 390 \mathrm{HI}$
6. GGR $49 \mathrm{IYI} /$ two of GGR $403 \mathrm{HI}, 409 \mathrm{HI}, 4 \mathrm{I} 3 \mathrm{HI}, 498 \mathrm{HI}$
7. One additional half-course from Group B
8. 4.5 courses from: GGR $20 \mathrm{IHI}, 203 \mathrm{HI}, 205 \mathrm{HI}, 206 \mathrm{HI}$, $30 \mathrm{IHI}, 302 \mathrm{HI}, 303 \mathrm{HI}, 305 \mathrm{HI}, 307 \mathrm{HI}, 3 \mathrm{I} 0 \mathrm{HI}, 3 \mathrm{I} 4 \mathrm{HI}$, $330 \mathrm{HI}, 333 \mathrm{HI}, 337 \mathrm{HI}, 39 \mathrm{IHI}, 403 \mathrm{HI}, 409 \mathrm{HI}, 4 \mathrm{I} 3 \mathrm{HI}$, $42 \mathrm{IHI}, 490 \mathrm{HI}, 498 \mathrm{HI} / E N V 236 \mathrm{Y}$. Of the 4.5 courses, additional options include up to 1.0 courses from Group B.

## Major program:

(7.5 full courses or their equivalent)

Note
The general Geography major program is excluded from the arrangement whereby students in a four-year degree may take two major programs sponsored by the Department of Geography

## Entry Requirement:

Students must have a CGPA of 2.0 or $67 \%$ in I. 0 GGR FCE at the 100 or 200 level

First Year:
I. One course from Group A (GGR IOOYI strongly recommended)
2. One course from: BIO I50YI/CHM I $37 \mathrm{YI} /(\mathrm{I} 38 \mathrm{HI}$, I39HI)/I5IYI/MAT I35YI/I37YI/PHY IIOYI/ I38YI/ I40YI
Higher Years:
I. Three of: GGR $20 \mathrm{IHI}, 203 \mathrm{HI}, 205 \mathrm{HI}, 206 \mathrm{HI}$
2. GGR $270 \mathrm{HI}, 390 \mathrm{HI}$
3. 3.0 courses from last option list in Specialist program above

## Minor Program:

(4 full courses or their equivalent)
I. One course from Group A (GGRIOOYI strongly recommended)
2. One full course or equivalent from: GGR $201 \mathrm{HI} / 203 \mathrm{HI} /$ $205 \mathrm{HI} / 206 \mathrm{HI}$
3. GGR $390 \mathrm{HI} ;(30 \mathrm{IHI} / 302 \mathrm{HI} / 305 \mathrm{HI}) ;(272 \mathrm{HI} / 307 \mathrm{HI} /$ 310 HI )
4. A half-course from Group $C$

## Urban, Economic and Social Geography (Arts program)

## Specialist program:

(10 full courses or their equivalent, including at least one 400series course)

## Entry Requirement:

Students must have a CGPA of 2.5
First Year:
One course from Group A (GGR I24YI recommended) Higher Years:
I. GGR $220 \mathrm{YI}, 270 \mathrm{HI}, 27 \mathrm{IHI}, 272 \mathrm{HI}$
2. GGR $49 \mathrm{IYI} /$ two of $43 \mathrm{IHI}, 439 \mathrm{HI}, 450 \mathrm{HI}, 452 \mathrm{HI}, 455 \mathrm{HI}$, $459 \mathrm{HI}, 492 \mathrm{HI}, 499 \mathrm{HI}, 457 \mathrm{HI}, 458 \mathrm{HI}, \mathrm{JFG} 470 \mathrm{HI}$,
3. One additional half-course from Group B
4. 5.0 courses from: GGR $216 \mathrm{HI}, 233 \mathrm{YI} / J G E 22 \mathrm{IYI}$; GGR $246 \mathrm{HI}, 249 \mathrm{HI}, 252 \mathrm{HI}, 254 \mathrm{HI}, 256 \mathrm{HI}, 323 \mathrm{HI}, 324 \mathrm{HI}$, $326 \mathrm{HI}, 327 \mathrm{HI}, 328 \mathrm{HI}, 333 \mathrm{HI}, 334 \mathrm{HI}, 336 \mathrm{HI}, 339 \mathrm{HI}$, $342 \mathrm{HI}, 343 \mathrm{HI}, 344 \mathrm{HI}, 350 \mathrm{HI}, 357 \mathrm{HI}, 36 \mathrm{HI}, 362 \mathrm{HI}$, $363 \mathrm{HI}, 366 \mathrm{HI}, 368 \mathrm{HI}, 39 \mathrm{IHI}, 42 \mathrm{IHI}, 43 \mathrm{IHI}, 439 \mathrm{HI}$, $450 \mathrm{HI}, 452 \mathrm{HI}, 459 \mathrm{HI}$; JFG $470 \mathrm{HI}, 475 \mathrm{HI}$; JGI 2 I 6 HI , 346 HI . Of the 5.0 courses, additional options include up to $I .0$ courses from Group B and a second course from Group A.

## Major program:

(7 full courses or their equivalent)

## Note:

The general Geography major program is excluded from the arrangement whereby students in a four-year degree may take two major programs sponsored by the Department of Geography

## Entry Requirement:

Students must have a CGPA of 2.0 or $67 \%$ in 1.0 GGR FCE at the 100 or 200 level

First Year:
One course from Group A (GGR I24YI recommended) Higher Years:
I. GGR $220 \mathrm{YI}, 270 \mathrm{HI}, 27 \mathrm{HI}$
2. 4.0 courses from last option list in Specialist program above
Group A:
GGR I00YI, I07YI, I24YI
Group B:
GGR $270 \mathrm{HI}, 27 \mathrm{IHI}, 272 \mathrm{HI}, 273 \mathrm{HI}, 337 \mathrm{HI}, 37 \mathrm{HI}, 373 \mathrm{HI}$,
$390 \mathrm{HI}, 39 \mathrm{IHI}, 393 \mathrm{HI}, 462 \mathrm{HI}, 473 \mathrm{HI}, 480 \mathrm{YI}, 490 \mathrm{HI}$; JFG
$470 \mathrm{HI}, 475 \mathrm{HI}$
Group C:
ENV 236 YI ; GGR $20 \mathrm{IHI}, 203 \mathrm{HI}, 205 \mathrm{HI}, 206 \mathrm{HI}, 30 \mathrm{IHI}, 302 \mathrm{HI}$, $303 \mathrm{HI}, 305 \mathrm{HI}, 307 \mathrm{HI}, 3 \mathrm{IOHI}, 3 \mathrm{I} 4 \mathrm{HI}, 333 \mathrm{HI} 402 \mathrm{HI}, 403 \mathrm{HI}$, $404 \mathrm{HI}, 409 \mathrm{HI}, 4 \mathrm{I} 3 \mathrm{HI}, 490 \mathrm{H}$

## Geography Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), GGR courses are classified in various categories; see entry at end of each course.

## INXI99HI/YI First Year Seminar 52S

SCII99HI/YI First Year Seminar 52S
Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course; see page 47.

## NOTE

Prerequisites: In some cases prerequisites may be waived if equivalent background exists. Please consult the Undergraduate Coordinator or instructor.

## GGRIOOYI Introduction to Physical 52L, 8P

 GeographyInroduction to physical geography, with an earth systems approach. Topics include the atmosphere, weather and climate, Earth materials and plate tectonics, geomorphic processes and the genesis of landforms, river systems, glaciers, soils, biomes and the biosphere. Emphases placed on processes, energy flows, cycles and scale. Lab exercises and a local field trip provide practical experience with each major topic.
Exclusion: JGFI50YI/JGGI50YI

## This is a Science course

GGRI07YI Environment, Food and People 52L, IOT Relations between population growth, agricultural development, urbanization and the natural environment. From the origins of agriculture to the present. From a few million to six billion people. The cost to the environment. The prospect of sustainability.
Exclusion: GGRIOIYI, IIOYI
This is a Social Science course

## GGRI24YI Urbanization, Contemporary 52L, 6T Cities and Urban Life

Introduction to the urban process. From the origin of cities to global urbanization; the evolution of systems of cities; uneven growth and the functional specialization of cities; globalization and economic restructuring, migration, public policies. World cities. Dynamics of urban property markets, population and demography, job location, housing, mobility and neighbourhood
change, social structure and spatial inequalities. Planning, politics and policy issues in U.S. and Canadian cities.
This is a Social Science course

## GGR2OIHI Geomorphology 26L, 4P

An introduction to the principles of geomorphology; earth materials; major features of crustal morphology; landforming processes of water, wind, waves and ice; human impact on earth surface processes. One hour laboratory session approximately every other week; a local field trip.
Recommended preparation: GGRI00YI
This is a Science course
GGR203HI Introduction to Climatology 34L, 4T
Introduction to the large scale processes responsible for determining global and regional climate and atmospheric circulation patterns, as well as the small scale processes responsible for determining the microclimates of specific environments.
Recommended preparation: GGRI00YI; MATI35YI/I37YI;
PHYIIOYI/I38YI/I40YI

## This is a Science course

GGR205HI Introduction to Soil Science 26L
Introduction to soil science dealing with the chemical, physical, and biological properties of soils; soil formation and development; the classification of soils, and the application of soil science to environmental, agricultural and forestry issues. Recommended preparation: CHMI $37 \mathrm{YI} /(138 \mathrm{HI}, \mathrm{I} 39 \mathrm{HI})$; GGRI00YI
This is a Science course
GGR206HI Introduction to Hydrology 30L, 4T
An introduction to the hydrologic cycle with emphasis on the land processes; precipitation, evaporation, runoff, flood prediction; ground water and snowmelt hydrology. Basic hydrological models will be practiced.
Recommended preparation: GGRI00YI; MATI35YI
This is a Science course

## GGR2I6HI Global Cities

With films, fiction and critical theory, this course explores global cities from around the world by looking at their everyday life: the people of these cities; how they got to be there; what they do; and how their lives are being shaped by increasingly globalized political, economic and cultural forces.
This is a Social Science or Humanities course
JGI216HI Urbanization \& Global Change 26L
In this course, we examine the processes of globalization, mass urbanization and economic change that are taking place in cities around the world. This includes an interdisciplinary exploration of the industrial and economic changes that have ensued as a result of globalization, as well as the social and cultural manifestations associated with the emergence of global cities. Recommended preparation: GGRI24

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GGR220YI The Spatial Organization of 52L, 4T
    Economic Activity
This basic course in economic geography introduces the main concepts and models that apply to problems of rural land use, trade and spatial economic interaction, industrial location, and regional development.
This is a Social Science course
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JGE22IYI Environment and 52L, 5P, IOT Sustainable Development
The foundation for students in the Centre for Environment programs and the Environment and Resource Management
Program in Geography, this course addresses social, ethical and biophysical dimensions of problems in sustainable development, the need for environmental action, and some tools that lead to solutions. Draws from relevant interdisciplinary domains in an examination of environmental degradation, the responses of various actors and models for a more sustainable future. The environmental issues given special consideration vary from year to year.
Exclusion: JIE 222YI/GGR 233YI
Recommended Preparation: GGR I00YI/IO7YI
This is a social science course.

## GGR233YI Environmental Management 52L, IOT for Sustainable Development

Addresses social and biophysical dimensions of problems in sustainable development and the need for environmental action. Encourages integrated approaches to the social origins and implications of environmental change, and the importance of scientific aspects of natural systems in discussions of sustainability.
Recommended preparation: GGRIOOYI/IOIYI/I07YI
This is a Social Science course

## GGR240HI Historical Geography of <br> \section*{North America}

An introduction to the historical geography of North America from the pre-Columbian period to the present. Topics include European imperialism, staple economies, colonial settlement, railroads and the West, industrialization and urbanization, sovereignty and security, environmental and agricultural change, and regional identities.
This is a Humanities course

## GGR246HI Geography of Canada

26L
An historical, topical, and regional introduction to the geography of Canada. Primary emphasis is on the resource base, regional differences and disparities, urbanization, industrialization, social and economic policy and population change.
This is a Social Science course

## GGR249HI Contemporary Latin America 26L

Conflict between the conservatism of long-established patterns of settlement and land use and the drive for economic development. Agricultural reform; colonization of the interior, emergence of industrial regions; growth of large cities. Case studies of the problems of regional development. Latin America in world trade. Trade relations with Canada. (Offered in alternate years)

## This is a Social Science course

GGR252HI Marketing Geography 26L, 4T
The problem of retail location. The spatial structure of consumer demand and retail facilities. Shopping centres and retail chains. Techniques for site selection and trade area evaluation, location strategies, retail planning.
This is a Social Science course

## GGR254HI Geography USA 26L

After a brief historical overview, focuses on contemporary issues in American society: economy, politics, race, regional distinctions and disparities, urban development and the U.S. as world power.
This is a Social Science course

GGR256HI Recreation and Tourism 26L
Introduction to spatial organization and environmental impact of recreation. Prediction of demand, problems of over-use, ecological risks, conflicts of interests, planning perspectives, Canada's tourist trade.
Recommended Preparation: Group A course:
This is a Social Science course
GGR270HI Introductory Analytical 39L, I3T Methods
Theory and practical application of elementary quantitative techniques in geography emphasizing descriptive, inferential and spatial statistical analysis, probability, and sampling.
Exclusion: ECO220YI/ECO227YI/GGR270YI/PSY20IHI/
SOC $300 \mathrm{YI} /$ STA $220 \mathrm{HI} / \mathrm{STA} 250 \mathrm{HI} /$ STA $248 \mathrm{HI} /$ STA 26 IHI
Pre- or Co-requisite:Two courses in Geography
This is a Social Science course
GGR27IHI Social Research Methods 26L
Practical course on field methods designed to enable students to carry out their own research projects. Behavioural observation, interviewing, questionnaire design, sampling theory, content analysis of written and graphic material, data coding and focus groups.
Exclusions: SOC200Y, POL242,WDW350
Prerequisite : GGR 270HI
This is a Social Science course

## GGR272HI Geographic Information 26L, 24P and Mapping I

Introduction to the theory and use of geographic information systems (GIS) for acquiring, processing, analysing, and mapping environmental and socio-economic data. Map projections, raster and vector data structures, overlay analysis, output design.
This is a Social Science course

## GGR273HI Geographic Information 26L, 24P and Mapping II

Intermediate topics on the theory and application of geographic information systems (GIS). Topics include data acquisition, geocoding, spatial analysis, and interpolation, terrain modelling and landscape analysis. Brief introduction to remote sensing. Prerequisite: GGR272HI
This is a Social Science course

## GGR299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.
GGR300HI Special Topics in Geography I 26L
Content in any given year depends on instructor. The program in which the course can be used depends on its content. Consult Department Office in April.
This is a Social Science course.
GGR30IHI Fluvial Geomorphology 26L, 4P
Elements of drainage basin morphology and hydrology,
classification of rivers, stream patterns and hydraulic geometry.
Elements of open channel flow, sediment transport and the paleohydrology of river systems. River channel adjustments to environmental change, human impact and the management/ design of river habitats. Exercises include experimentation in a laboratory flume.
Prerequisite: GGRIOOYI or GGR2OIHI, 270 HI (or equivalent) This is a Science course

## GGR302HI Quaternary Paleoclimatic 26L, 4P

 ReconstructionPrinciples underlying use of ice cores, marine sediments, lake sediments, tree rings, coral reefs, and pollen to reconstruct past climates. Exercises involve downloading, plotting, and analysing proxy climatic data that are available over the Internet. (Offered in alternate years)
Prerequisite : GGR20IHI/203HI
This is a Science course

## GGR303HI Climate-Biosphere Interactions 26L

Discussion of the exchange of energy and matter (carbon, water) between the Earth's biosphere (terrestrial vegetation) and atmosphere, with a focus on processes underlying key feedbacks on regional climate. Examples will be taken from research on contemporary as well as paleoclimate systems. Case studies to include how human disturbances like land-use change or future climate change may alter these processes. Prerequisite : Equivalent of one full-year science course at the

200-level, or permission from the instructor.
This is a Science course.

## GGR305HI Biogeography 26L

Introduction to the spatial and temporal patterns of plant and animal distribution. The first half focuses on contemporary environmental and biological controls. The second half examines past patterns and their causes.
Recommended preparation: GGR 100 Y or BIO 150 Y This is a Science course

## GGR307HI Soil and Water: Landscape <br> 26L, IOP Processes

An introduction to physical and chemical processes operating at micro- to landscape scales and their effects on soil and water quality. Discussion of anthropogenic impacts and management and conservation issues. Local and international case studies. Recommended preparation: GGR205HI, GGR206HI This is a Science course

## GGR3IOHI Cultural Biogeography

 26LThe changing relationship between people and the biosphere from the emergence of hominids to the present. Environmental constraints on human evolution, hunter-gatherer societies and their environmental impacts, evolution of agriculture and consequences of increasing population and technology, including deliberate and inadvertent introductions of plants and animals and forest fragmentation. (Offered in alternate years) Recommended preparation:ANT200YI/BOT430HI/GGR305HI This is a Science course

## GGR3I4HI Global Warming

A comprehensive examination of the greenhouse warming problem, beginning with economic, carbon cycle, and climate model projections; impacts on and adaptive responses of agriculture, forests, fisheries, and water resources; abatement options; technical and institutional issues.
This is a Social Science course

## GGR320HI Geographies of Transnationalism, 26L

 Migration, and GenderThis course examines recent changes in global migration processes. Specifically, the course addresses the transnationalization and feminization of migrant populations and various segments of the global labor force. The coursework focuses on analyzing classical paradigms in migration studies, as well as emerging theoretical approaches to gender and migration. In addition, it traces the shifting empirical trends in
gendered employment and mobility patterns. It uses in-depth case study material to query the frameworks employed in migration studies and to understand the grounded implications of gendered migration. It pays particular attention to the interventions made by feminist geographers in debates about work, migration, place, and space.
This is a Social Science course.

## JUG320HI The Canadian Wilderness

The idea of wilderness permeates narratives of Canadian national identity, while policy-makers seek to manage and contain natural areas. This course compares and contrasts historical and contemporary wilderness narratives in literature, painting and film with policies in areas such as conservation, urban planning, land claims and tourism.
This is a Social Science course
JAG32IHI Aboriginal People and

## Environmental Issues in Canada

This course explores Aboriginal views of environment and resource management from pre-European contact times through to the present from an Aboriginal perspective. Emphasis will be placed on the emerging role of Aboriginal people in environmental and resource management in Canada. Topics to be covered include: history of Aboriginal/non-Aboriginal relations, Aboriginal world view and philosophy, Aboriginal environmental ethics and principles and current environmental issues confronting Aboriginal people.
Prerequisite: Two credits in Geography or Aboriginal Studies
GGR323HI Issues in Population Geography 26L Explores issues in geographies of population at a variety of scales from global to local. Issues include demographic patterns and population change, fertility, families and cohorts, mortality, and migration and immigration. Will draw mainly on the
Canadian and U.S. experience, but examples will also be drawn from other regions of the world.
Recommended preparation: GGR270HI
This is a Social Science course

## GGR324HI Transportation Geography 26L

 and PlanningAn introductory overview of major issues in interurban and intraurban transportation at both local and national scales. Topics include causes of spatial interaction, graph theory and network analysis, gravity and entropy-maximizing models, urban transportation and land use, congestion, public transit and transport policy.
Prerequisite: GGRI24YI/220YI or permission of instructor Recommended preparation: GGR270HI
This is a Social Science course

## GGR327HI Geography and Gender

An introduction to the work of feminist geographers. The course will explore the relationship between gender and space, emphasizing spatial cognition, architecture, and layout of the city. Prerequisite: Two courses in Geography

## GGR328HI Labour Geographies

This course explores changes in the nature of work and the structure and geography of labour markets. Topics will include globalization, lean production, flexibility and risk, industrial relations, workfare, the body at work, and gender and work. Prerequisite:Two courses in Geography
GGR330HI Atmosphere and Human Health 26L
Human activities are altering the Earth's climate and changing the chemistry of the Earth's atmosphere. Globally, climate
change and stratospheric ozone depletion, and regionally, acid precipitation, air toxics, particulate matter, and smog are receiving much attention. This course discusses these air quality issues, the human health impacts of these problems, and possible solutions
Recommended preparation: GGRIOOYI or equivalent

## GGR33IHI Resource and Environmental

 TheoryIntroduction to and critical evaluation of major social theoretical paradigms applied to environmental and natural resource politics and regulation. Topics include: neo-classical approaches, eco-Marxism, political ecology, social constructivism, production of nature, ecological modernization, tragedy of the commons, staples theory, science and administrative rationalism. Prerequisite: GGRI00YI/I07YI/233YI
This is a Social Science course
GGR332HI Urban Waste Management 26L
This course examines I) factors affecting the spatial distribution of wastes; and 2) models and policy implications inherent in all aspects of waste management, from waste generation through recycling and waste disposal. Contrasting waste management practices in the developed and the developing world is a central theme.
Prerequisite: GGR233YI/JGE22IYI/200-level environmental course
This is a Social Science course

## GGR333HI Energy Supply and Use 26L

Examines the technical and economic potential of advanced fossil-fuel-supply technologies, renewable energy (solar, wind, biomass, geothermal, ocean, hydro), and the potential for more efficient end use of energy in the residential, commercial, industrial, and transportation sectors. Also discusses: innovative energy systems, global scenarios, policy implications.
This is a Science course
GGR334HI Water Resource Management 26L
Managing demand and supply; linkages between water quality and human health. Case studies from the industrial world and from developing countries, rural and urban. Implications of population growth and climate change for water resource management.
Recommended preparation: GGRI00YI/IO7YI, GGR233YI/
JEG22IYI
This is a Social Science course
GGR335HI Business and Environmental 26L Change
Steadily increasing pressure on biospheric resources (eg. water) and sinks (eg. the atmosphere) requires business to adapt and innovate, while simultaneously responding to globalization and the information revolution. Examples include the financial services sector, as well as energy, transportation, tourism and resource-based industries.
Recommended preparation: GGR233YI/JEG22IYI
This is a Social Science course

## GGR336HI Urban Historical Geography of North America

Processes of urbanization; development of urban systems; changing internal patterns: central area, residential districts, housing, transportation, reform and planning movements. Emphasis on the 19th century and the first half of the 20th century.
Recommended preparation: GGRI24YI/SOC205YI
This is a Humanities course

## GGR337HI Environmental Remote 26L, 26P

## Sensing

Principles of optical, active and passive microwave remote sensing; satellite orbit and sensor characteristics; image processing and analysis techniques and software; and environmental remote sensing principles.
Prerequisite: GGR272HI
This is a Science course

## GGR338HI Environmental Problems in Developing Countries

Describes and analyses a broad range of the key environmental issues currently facing developing countries from geographical perspectives. Emphasis is on air pollution, water contamination and treatment, residential and industrial solid waste collection and management, with multimedia and written examples drawn from throughout the developing world.
Prerequisite: 200-level environmental course
This is a Social Science course

## GGR339HI Urban Geography, Planning and Political Processes

The interdependence of political processes and institutions, public policy and urban geography. The political economy of federalism, urban growth, planning and public services as they shape the urban landscape. The spaces of the city as the negotiated outcomes of variously empowered people and the meanings they ascribe to localities and places. Approaches informed by post-colonial, post-modern, and feminist perspectives. Canadian, U.S. and European comparisons. Prerequisite: GGRI 24 Y I, $246 \mathrm{HI} / 254 \mathrm{HI}$
This is a Social Science course

## GGR34IHI Arctic Canada

An introduction to Canada's arctic and subarctic regions 'north of 60', an examination of physical processes that have shaped the region, as well as environmental, social, economic and political themes covering topics such as exploration and settlement, aboriginal land claims, wildlife and resource management, economic development and other current issues. Recommended Preparation:Two courses in Geography This is a Social Science course

## GGR342HI The Changing Geography of Southeast Asia

Examines changes in the social, political and economic geography of Southeast Asian countries. Examples drawn from Thailand, Singapore, Indonesia, Vietnam and the Philippines as these emerging newly industrialized countries enter the 2 Ist century. Emphasis on political-economy, urbanization and environment since 1950.
Recommended preparation:Two courses in Geography This is a Social Science course
GGR343HI The Changing Geography of China 26L The evolving physical, social, political and economic landscape of China. Focus on development strategies, industry, agriculture, urbanization and the environment since 1949. Special attention paid to the character and impact of China's on-going transition from a planned to market economy.
Recommended preparation:Two courses in Geography
This is a Social Science course
GGR344HI $\begin{aligned} & \text { Changing Geography of } \\ & \text { Russia and Ukraine }\end{aligned}$
Overview of the physical environment and historical geography;
changes in population distribution during the Soviet period;
current demographic and ethnic problems; the rural economy; urbanization, industrial location, and regional development issues.
Recommended preparation:Two courses in Geography
This is a Social Science course
JGI346HI The Urban Planning Process 26L
An overview of how planning tools and practice shape the built form of cities. This course introduces twentieth century physical planning within its historical, social, legal, and political contests. Community and urban design issues are addressed at local and regional scales and in both central cities and suburbs. The focus is on Toronto and the Canadian experience, with comparative examples form the other counties, primarily the United States. Recommended Preparation: GGRI24YI

## This is a Social Science course

GGR350HI Canada in a Global Context 26L
This course considers geographic relationships between Canada and the world in the era of globalization, from the colonial period to the present. Local and regional sites will be linked to cultural, economic, environmental, and political processes occurring at a global scale. Key themes will include trade and investment, nationalism and identity, and Canadian geopolitics. Prerequisite: I.0 GGR courses
This is a Social Science course.

## GGR360HI Culture, History, and Landscape

The history of approaches to the idea of landscape. A consideration of the origins and uses of the term in geographical inquiry will be followed by a series of case studies, global in scope, from the Early Modern period to the present. Emphasis will be placed on the representational aspects of landscapes, as well as struggles over their definition, interpretation, and use.
Prerequisite: I.0 GGR courses
This is a Humanities course.

## GGR357HI Geography of Housing and Housing Policy

An introduction to housing in context: as a commodity, a political process and social necessity. The analysis of housing markets in an urban and spatial context, emphasizing the allocation mechanism, residential location and tenure choice, the role of the state, social housing and the relationships of housing changes to mobility, neighbourhood transition, and social equity. Case studies of specific policy issues and alternative housing strategies.
Recommended Preparation: GGRI24YI
This is a Social Science course
GGR36IHI 26L
Three related themes are discussed: the underlying social, cultural and economic forces that have given cities their form and image; various aesthetic and political philosophies that have been put into practice in constructing the urban landscape; and recent European and North American attempts to control the landscape of the contemporary metropolis by the application of urban policy and planning.
Recommended Preparation: GGRI24YI and one of GGR 216,
GGR 240, GGR 246, GGR 249 or GGR 259
This is a Social Science course
GGR362HI Cities of Difference 26L
The course examines the connections between urban space and social identity through four related themes: theories of
difference; the urban geography of ethnicity, gender, sexuality and other axes of difference; the relationship of identity to the experience of place; and planning and the politics of difference. Recommended Preparation: GGRI 24 and one of GGR 216,

GGR 239, GGR 240, GGR 246, GGR 249 or GGR 254 This is a Social Science course

## GGR363HI Critical Geographies: An Introduction to Radical Ideas on Space, Society and Culture

This course introduces a diversity of critical perspectives in human geography, spanning anarchism, Marxism, feminism, sexual politics, 'postcolonialism' and anti-racism. In so doing it illustrates how such a range of radical ideas about space, society and culture have emerged and influenced our thought and action.
This is a Social Science and Humanities course

## GGR366HI Historical Toronto

Toronto's development compared to other large North
American cities. Culture, social life, economy, politics, and planning process.
Recommended preparation: GGR336HI
This is a Humanities course

## GGR368HI Geography of Language 26L

Topics in the distribution and spread of languages and dialects, including dialect atlases, innovation diffusion, measures of dialect distance, and linguistic consequences of urbanization and mobility. Rudiments of phonetics and grammar are integrated in the geolinguistic content.
Recommended preparation:Two courses in Geography
This is a Humanities or Social Science course

## GGR37IHI Advanced Quantitative Methods

## in Geography

This course is designed to give students exposure to advanced quantitative techniques including inferential applications of the simple regression model, multiple regression analysis (MRA), data screening for MRA, model building issues in MRA, qualitative independent variable models, discrete choice models, cluster analysis and forecasting methods.
Prerequisite: GGR270HI
This is a Science course

## GGR373HI Advanced Geographic 26L,24P Information Systems

Advanced theory, techniques, and applications in geographic information systems (GIS), including interpolation, geostatistics, modeling, and raster and vector analysis. GIS project design and implementation.
Prerequisite: GGR270HI, 272HI

## This is a Science course

## GGR390HI Field Methods

TBA
Introduction to field methods in vegetation mapping/analysis, soils, hydrology and geomorphology. The course includes exercises and a project during a one-week field camp early in September, a little preparation during the preceding summer, and complementary practical work and/or seminars during the Fall Term. Each student is required to pay the costs of their transportation and accommodation. Students must register with the Department by April 2007.
Prerequisite: GGRI00YI
This is a Science course

## GGR39IHI Research Design

26S
A seminar course in which each student prepares a research proposal incorporating relevant theory, published research, sources of data, and methods of enquiry and analysis. A proposal prepared in this course may be used to plan research for GGR 49IYI.
Prerequisite: 3.0 300/400-series GGR courses
This is a Social Science course

## GGR393HI Environmental Impact 26L, 6P

## Assessment

Environmental impact assessment as a mechanism for avoiding or mediating the costs of development. Emphasis on the institutional development of EIA in Canada, and EIA in the context of environmental regulation. Includes case studies of EIA statements and processes at various levels of government. Prerequisite: GGRI00YI/I07YI/233YI

## This is a Social Science course

GGR398H0/ Independent Experiential Study Project 399Y0
An instructor-supervised group project in an off-campus setting. See page 47 for details.
GGR400HI Special Topics in Geography II 26S
Content in any given year depends on instructor. The program in which this course can be used depends on its context. Consult Departmental Office in April.

## GGR403HI Global Ecology and 26L Biogeochemical Cycles

Seminar course on biogeochemical cycling of carbon, water, nitrogen, phosphorus, sulfur, and iron between the Earth's atmosphere, oceans, and biosphere. Focus will be placed on the global carbon cycle, including how other biogeochemical cycles feedback on carbon-based processes and mechanisms. Examples and case studies will be taken from research on contemporary as well as paleoclimate systems.
Prerequisite: Equivalent of two full-year courses at the 300 or
400 level, or permission from the instructor.
This is a Science course

## GGR409HI Contaminants in the 26L, IIT

 EnvironmentThe environmental behaviour and toxicology of inorganic and organic chemical contaminants is discussed in order to understand the scientific basis of pollution concerns. Theory is illustrated with qualitative and quantitative examples and case studies that extend from chemical emissions to health effects. Facility is gained with simple mathematical models. The interface between science and policy are discussed throughout. Prerequisite: CHMI $37 \mathrm{YI} /(\mathrm{I} 38 \mathrm{HI}, \mathrm{I} 39 \mathrm{HI}) / \mathrm{I} 5 \mathrm{IY} / / G G R 205 \mathrm{HI}$ This is a Science course
GGR4I3HI Watershed Hydroecology
Modern developments in hydrology and ecology, including
form and process models, interactions of hydrology, ecology
and geomorphology; the course emphasizes use of computer simulation models of drainage basin processes.
Prerequisite: GGR20IHI/206HI270HI
This is a Science course

## GGR4I5HI Resource and Environmental 26L Planning

The policy and institutional aspects of resource and environmental planning in Canada. Overview of the evolution of
resource and environmental management and the examination of selected planning techniques; community involvement in planning; the ecosystem approach to planning; emphasis on environmental planning in the urban context.
Prerequisite: GGR233YI/JEG22IYI/200-level environmental course.
This is a Social Science course

## GGR4I8HI Political Economy of Natural Resources

Examines political aspects of the appropriation of natural resources, including policy and regulation, environmental impacts, and social justice. Emphasis is placed on reading contemporary literature on the politics of resource access and control from geography and other social science disciplines.
Prerequisite: GGR233YI/JEG22IYI
This is a Social Science course
GGR42IHI History \& Philosophy of Geography 26S
The history of geography as an intellectual subject, focusing primarily on the modern period, and on the genealogy of central concepts such as region, landscape, and place. Disciplinary developments will be situated next to broader contexts, including imperialism and militarism, the relationship between culture and nature, and the shifting social role of the academy.
Prerequisite: Two courses in Geography
This is a Humanities course
GGR43IHI Regional Dynamics
Theory and analysis of regional economic change with emphasis on North America and Western Europe. Exportbase, neoclassical, increasing returns, and political-economic explanations of regional growth and decline, globalization, knowledge-based economy and the role of regions. Geography of technological change, labour-markets and labour relations. Objectives and approaches for local and regional development policy, including talent-based strategies for enhancing local creativity.
Prerequisite: GGR220YI, 270HI
This is a Social Science course
GGR439HI Global Political Geography
Introduction to geopolitical theories. Emphasis on the development of the nation state, theories of land claims and the territorial manifestations of nationalism. Will examine recent theoretical as well as empirical challenges to many of the conventional geopolitical assumptions about scale, space, and power in global politics. Please note that this course is open to students who have taken GGR 239 HI (formerly Global Political Geography).
Prerequisite:Two courses in Geography or permission of instructor.
Recommended preparation:This course should not be attempted until you have completed two years of full-time study or the equivalent number of credits part-time.

## This is a Social Science course

## GGR450HI Medical Geography <br> 26L

This course is an introduction to medical geography. It includes the following topics: concepts and techniques of medical geography; human ecology of disease; regional patterns of diseases; biometeorological influences on health and disease; health effects of environmental modification and contamination; disease diffusion; spatial distribution of health care resources; and emerging and re-emerging infections.

Prerequisite: Group A, GGR270HI
Recommended preparation: BIO I50YI or equivalent
This is a Social Science course

## GGR45IHI Health and Place

26L
An exploration of the aspects of health in which place or location matters. Particular attention will be paid to the role of environments (physical, social, etc.) in explaining differences in health between places, the structuring of health-related behaviour in place, and the development of health policy for places.
Prerequisite: GGR 233YI
Recommended preparation: GGR270HI
This is a Social Science course

## GGR452HI Space, Power, Geography:

 Understanding SpatialityThe changing nature of space and our thinking about it, centering on works of contemporary geographers and spatial theorists such as Lefebvre, Soja, Gregory, Harvey, Massey and challenges to this thinking. Explores changing concepts of spatiality that inform geographic thought and help us understand the ways political, economic and social power is constituted and contested.
Prerequisite: GGRI24YI
Recommended preparation: GGR339HI/36IHI
This is a Social Science course

## JGI454HI The Role of the Planner: 26L

 Making a DifferenceThis course will focus on the role of a planning practitioner in contemporary society using a wealth of examples drawn from recent issues and debates in Canadian cities and regions. The course will walk students through the demands made of planners in terms of both technical expertise as well as political necessity and ask them to think actively about how to prepare for the extraordinary growth of cities during the next century. Examples of issues that will be discussed in some detail include the myths surrounding the city vs. the suburbs, the creativity and passion involved in planning work and the new City of Toronto Act.
Prerequisite: I5 credits, 5.0 of which must be GGR/INI Urban Studies
This is a Social Science course

## GGR457HI The Post-War Suburbs 26L

This course investigates post-war suburbs, beginning with an examination of their competing contemporary meanings. It considers images of prosperous private enclaves, of declining and difficult to access places, of racialized and segregated areas, of banality and homogeneity, of precarity and polarization, and of creative social struggles. It assesses these different visions through an analysis of urban growth and change since WWII. The course will focus on themes of public and private space; class, race and segregation; gender and suburban space; immigration; 'urban sprawl', and the changing social and economic geography of the suburbs. It examines North American areas, with examples from Australia and Europe. Prerequisite: 10 FCEs

## GGR458HI Advanced Topics in Urban Geography

Though there is some debate about the actual moment, we have either already surpassed or will very soon exceed the point when over 50 percent of the earth's inhabitants live in cities. In most developed countries, the rate of urbanization is

## Geography

well over 70 percent already. In short, the twenty-first century is rapidly shaping up as the urban century. The social, economic and political significance of cities is thus increasingly important to understand. This course will cover advanced work on the geography of cities to further this understanding. The first third of the course will cover foundational ideas in urban geography while the final two thirds will cover two separate contemporary topics in the field. The course will be useful for those broadly interested in the topic or more particularly interested in preparing for a career in urban planning or policymaking. Prerequisite: 10 FCEs

## GGR459HI Urban Form, Structure and Growth

Alternative perspectives on urban form and growth: the processes, logics and tensions underlying metropolitan development; production and consumption spheres; changes in the demographic, political, ethno-cultural and social fabric of cities; global economic restructuring and shifts in urban labour markets; land development and suburbanization; inner city revitalization and suburban decline; conflicts over public goods and services; policy issues and equity questions; quality of life and future urban forms.
Prerequisite: GGRI24YI, 270HI
This is a Social Science course

## GGR462HI Geographic Information Systems 26L

Advanced level of GIS; project-based use of GIS for spatially referenced socio-economic, environmental, and planning data analysis; enhanced ability in using GIS for solving practical problems.
Prerequisite: GGR272HI, 373HI, and two other GGR courses This is a Science course

## JFG470HI Forest Management

Application of operational research and information technology to develop decision support systems for forest land management planning. Basic principles of mathematical programming, simulation and decision analysis, and their application to planning for forest conservation and sustainable development, policy analysis and other land management planning problems.
Prerequisite: One course in quantitative methods or linear algebra
Recommended preparation: GGR270HI/ECO220YI/227YI/ MATI33YI/223HI
This is a Science course

## GGR473HI Cartographic Design I3L, 26P

The design and production of maps using GIS cartographic and graphics software packages. Map perception and map use, principles and elements of cartographic design, data acquisition and manipulation, production and reproduction of maps and atlases. Practical exercises culminate in a major project in thematic map design.
Prerequisite: GGR272HI, 273HI
This is a Social Science course

## JFG475HI Emergency Response <br> 26L

 Systems PlanningUse of operational research and information technology to develop mathematical models and decision support systems to design and evaluate the performance of emergency response systems. Forest fire management systems are used to illustrate the basic principles of emergency response system planning that can also be applied to urban fire, police, and ambulance services. Prerequisite: One course quantitative methods or calculus
Recommended preparation: GGR270HI/ECO220YI/227YI/
MATI33YI/I35YI/I37YI
This is a Science course
GGR480YI Advanced Field Research-Human 26L Geography
Context in any given year depends on instructor and location. Offered in summer session. Consult departmental office in April. Prerequisite: Permission of the instructor
This is a Social Science course

## GGR490HI Advanced Field ResearchPhysical Geography

A two-week course emphasizing the use of advanced field methods for analyzing the pattern of variations in vegetation, soils, surface hydrology and geomorphology in montane and alpine environments. Course is offered in August at the University of Calgary's field station, Kananaskis, Alberta. Students are responsible for the cost of board, lodging and transport to and from the field. Students must register with the Department in March. (Offered in alternate years)
Prerequisite:Two Physical/Environmental courses or permission
of instructors
Recommended preparation: GGR390HI
This is a Science course

## GGR49IYI Research Project

A course specially designed for students wishing to gain experience in conducting research in their area of specialization. Of particular value for geographers interested in graduate study, or positions in government, planning and consulting firms where research skills may be an asset. Students select a research problem and complete a project under the supervision of a member of staff. Early discussion with the course coordinator, Undergraduate Coordinator and likely supervisor is encouraged; enrolment may be completed at any time up to September.
Open to students meeting the following exclusions and enrolled in a Specialist or Major Program sponsored by the Department of Geography.
Prerequisite: I5 course credits

## GGR492HI Senior Practicum

Students design and implement an independent applied geography/planning project in consultation with an NGO or government organization, who will act as their "client." Enrolment requires written permission from a staff supervisor and Undergraduate Coordinator. Only open to students who are enrolled in a Specialist or Major program sponsored by the Department of Geography.
Prerequisite: GGR39IHI/392HI, I5 course credits

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## GGR498HI Independent Research I

An independent research extension to one of the courses already completed in Physical Geography. Enrolment requires written permission from a staff supervisor and Undergraduate
Coordinator. Only open to students who have completed 15 course credits and who are enrolled in a Specialist or Major program sponsored by the Department of Geography.
Exclusion: GGR49IYI
This is a Science course

## GGR499HI Independent Research II

An independent research extension to one of the courses already completed in a social science or humanities branch of Geography.
Enrolment requires written permission from a staff supervisor
and Undergraduate Coordinator. Only open to students who have completed I5 course credits and who are enrolled in a Specialist or Major program sponsored by the Department of Geography. Exclusion: GGR49IYI
This is a Social Science or Humanities course

## Faculty

University Professor Emeritus
A.J. Naldrett, MA, M Sc, Ph D, FRSC

## Professors Emeriti

G.M.Anderson, B Eng, MA Sc, Ph D
J.J. Fawcett, B Sc, Ph D
J. Gittins, M Sc, Ph D, Sc D (U)
A.M. Goodwin, M Sc, Ph D, FRSC
D.H. Gorman, B Sc, Ph D
G. Norris, MA, Ph D, FRSC (U)

P-Y. F. Robin, M Sc, Ph D (University of Toronto Mississauga)
J.C. Rucklidge, MA, Ph D
W.M. Schwerdtner, Dip Geol, Dr Rer Nat
S.D. Scott, Ph D, FRSC
J.C.Van Loon, B Sc, Ph D
J.A.Westgate, B Sc, Ph D (S)

## Professor and Chair of the Department

A.Cruden, B Sc, PhD (University of Toronto Mississauga)

Associate Professor and Associate Chair (Graduate Studies)
J. Brenan, B Sc, Ph D

## Associate Professor and Associate Chair

 (Undergraduate Studies)J.E. Mungall, M Sc, Ph D

## Professors

R.C. Bailey, B Sc, Ph D
N. Eyles, M Sc, Ph D (UTS)
F.G. Ferris, B Sc, Ph D
H.C. Halls, M Sc, PhD (University of Toronto Mississauga)
K.W.F. Howard, M Sc, Ph D (UTS)
A.D. Miall, B Sc, Ph D, D Sc, FRSC
B. Sherwood Lollar, BA, Ph D, FRSC
E.T.C. Spooner, MA, Ph D (U)
P.H. von Bitter, MA, Ph D

## Associate Professors

D. Davis, M.Sc, Ph D
M.P. Gorton, B Sc, Ph D
M.A. Hamilton, M Sc, Ph D
G.S. Henderson, M Sc, Ph D
D.J. Schulze, M Sc, Ph D (University of Toronto Mississauga)
R. Pysklywec, M Sc, Ph D

Assistant Professors
J. Bollmann, Dip Geol, Ph D
R. Ghent, M Sc, Ph D
J. Halfar, Dip Geol, Ph D (University of Toronto Mississauga)
G. Srinivasan, M Sc, Ph D
U. Wortmann, Dip Geol, Dr Rer Nat

## Lecturer

C.G. Bank, M Sc, Ph D

Geology means "Study of the Earth." This covers everything from the origin of the Earth and its position in the Solar System, to the physical, chemical and biological processes which have brought the Earth through its 4.5 billion year history to the present time, when society itself can be seen as an agent of geological change. Besides the fundamental studies of rocks, minerals and fossils, Geology is concerned with the exploration and responsible recovery of vital resources such as metalliferous ores, coal, petroleum, natural gas, industrial minerals and groundwater. An understanding of the way the Earth works is important to achieve effective protection of the environment. Hence, geologists are widely employed in problems of urban development, water and soil pollution, waste disposal, earthquake and volcanic risk assessment, public policy and resource management. Under the Professional Geoscientists Act of 2000, individuals practising Geoscience in Ontario require education equivalent to the one of the Specialist Programs listed below or a P.Eng.

Four Specialist Programs are offered: Geology, Environmental Geosciences, Geology and Physics, and Chemistry and Geology. Major and Minor programs are offered in Geology as well as a Major program in the Environmental Geosciences. Students are encouraged to discuss their plans on program and course selection with the Associate Chair (Undergraduate Studies) or Program Supervisor. Students wishing to enter a Geology Specialist program should have taken the following courses in Grade I2: English ENG4U, Chemistry SCH4U, Physics SPH4U, and Functions MCB4U or equivalent.

The Professional Experience Year (PEY) program (see Student Services and Resources in this Calendar) is available to eligible students after their third year of study. The PEY program is an optional 16 -month work term which provides industrial experience; its length gives students the opportunity to enjoy the rewarding experience of initiating and completing a major project.

More information about undergraduate studies in Geology is contained in a booklet which is available from the departmental office (ESC 1066). Additional courses with geological content are listed in the Calendar of the Faculty of Applied Science and Engineering.

Undergraduate Coordinator:
James Mungall (416-978-2975) email: mungall@geology. utoronto.ca

Enquiries:
Department of Geology, Earth Sciences Centre (416-978-3022)

## Geology Programs

The introductory 100 -level course GLGIO2HI is strongly recommended for enrolment in all programs in the Department of Geology. No minimum GPA is required.

## Geology (Science program)

Consult the Undergraduate Coordinator, Department of Geology, Earth Sciences Centre

## Specialist program:

(14 full courses or their equivalent)
First Year:
required: CHM $15 \mathrm{IYI} /(138 \mathrm{HI}, \mathrm{I} 39 \mathrm{HI})$; MAT $\mathrm{I} 35 \mathrm{YI} / \mathrm{I} 37 \mathrm{YI}$; PHY I38YI/I40YI;
recommended: BIO I5OYI and GLGIO2HI
Second Year:
GLG 202HI; GLG204HI; GLG 206HI, GLG207HI, GLG2I6HI, GLG2I7HI; MAT 223HI
Third Year:
GLG $3 \mathrm{I} 8 \mathrm{HI}, 340 \mathrm{HI}, 345 \mathrm{HI}, 35 \mathrm{IHI}, 360 \mathrm{HI}$; ENV 3I5HI
Fourth Year
I. GLG $445 \mathrm{HI}, \mathrm{GLG} 470 \mathrm{Y}$ I
2. 3.0 full 400 -series GLG or JGP courses

Major program:
(8 full courses or their equivalent)
First Year:
required: CHM I5IYI/(I38HI, I39HI); MAT I35YI/I37YI; PHY I38YI/I40YI
recommended: BIO I50YI and GLGI02HI
Second Year:
GLG 206HI, 207HI, 216HI, 217HI
Higher Years:
I. GLG 340 HI
2. 2.5 courses from $300 / 400$-series GLG courses/ENV $315 \mathrm{HI} /$ JGP 438HI

## Minor program:

(4 full courses or their equivalent)
Four full course equivalents of which one full course or equivalent is at the 300/400-level

## First Year:

GLG 102 HI , one half course equivalent from other 100 -series GLG course; one full course equivalent of 100 -series CHM, BIO, or PHY courses
Second Year:
One full course equivalent from 200 -series GLG courses
Third Year:
One full course equivalent from 300/400-series GLG courses/ ENV $315 \mathrm{HI} / J G P 438 \mathrm{HI}$

## NOTE:

Some GLG courses have CHM/MAT/PHY prerequisites

## Environmental Geosciences - See Centre for Environment

## Geology and Chemistry - see Chemistry

## Geology and Physics (Science program)

Consult Departments of Geology and Physics

## Specialist program:

(14 full courses or their equivalent with at least one course at the 400-level)
First Year:
CHM I5IYI; MAT I37YI; PHY I40YI; GLGI02HI is strongly recommended

## Second Year:

GLG $206 \mathrm{HI}, 207 \mathrm{HI}, 216 \mathrm{HI}, 2 \mathrm{I} 7 \mathrm{HI}$; MAT 237YI, 244HI; PHY
$25 \mathrm{IHI}, 255 \mathrm{HI}$
Third Year:
APM 346 HI ; GLG 345 HI ; PHY $225 \mathrm{HI}, 308 \mathrm{HI}, 35 \mathrm{IHI}, 352 \mathrm{HI}$
Fourth Year:
I. GLG 340HI
2. I. $300 / 400$-series GLG courses
3. I. 300/400-series PHY courses

## Note:

I. Students are encouraged to select courses on the basis of a coherent theme such as Exploration Geology and Geophysics, Global Tectonics, or Environmental Geodynamics.
2. Students are required to register with the Departments and have their programs approved.

## Geology Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), all GLG courses are classified as SCIENCE courses.

## SCII99HI/YI First Year Seminar

Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course; see page 47.

## GLGI02HI Earth Science

26L, 26P
Introduction to the functioning of the Earth as a chemical and physical system. Topics include formation of the Earth from the solar nebula, radioactive decay and age dating, meteorite impacts, melting and crystallization of rocks, erosion and sedimentation, the carbon cycle and its effects on climate, and the transport and remediation of pollutants in the environment. Prerequisites: Grade 12 Chemistry SCH4U, Physics SPH4U, and Functions MCB4U or equivalent.

## Exclusion: GLG IIOHI

## GLGI03HI Geology in Public Issues

26L
Geologic hazards: earthquakes, volcanoes, landslides, tsunamis.
The distribution and politics of natural resources, including petroleum and ore deposits. Nuclear power and nuclear waste disposal. Global change: the geologic record of hot and cold climates, and how the earth survives.
GLGIO3HI is primarily intended as a science Distribution
Requirement course for Humanities and Social Science.

## GLGI05HI Evolution of the Earth: Controversy over the Last 2300 Years

The evolution of ideas about the origin and development of the earth from the Athenians to the 20th Century. With attention on whether the earth has an infinite or a finite life; on the evolution and disappearance of species; on the origin of oceans, continents and mountains; on the forces that have shaped the earth's surface; and on the courage of scientists in confronting the religious and political views of their time.
GLGI05HI is primarily intended as a science Distribution Requirement course for Humanities and Social Science students.

## GLGIIOHI Introductory Geology 26L

The nature and evolution of the Earth; plate tectonics; rocks and minerals; volcanism; geological time; fossils; geology of Ontario; environmental issues.
Exclusion: GLG 102HI
GLGIIOHI is primarily intended as a science Distribution Requirement course for Humanities and Social Science students
GLGI30HI Exploration of the Solar System 26L
Scientific findings of the solar system exploration program and their application to the origin of the earth and solar system; space resources; search for life on other planets.
Prerequisite: Grade 12 U Chemistry or Physics
GLG202HI Introductory Geochemistry 26L, 39P
An introduction to thermodynamics, phase diagrams and solution chemistry, with application to geological and environmental processes.
Prerequisite: CHMI5IYI/(I38HI, I39HI); MAT I35YI/I37YI

## GLG204HI Quantitative Methods in 26L, 39P Geology

An introduction to quantitative approaches to geological problems: use of scalars, vectors and tensors in stress and strain analysis, statistical treatment of geological datasets, heat and mass transfer in earth materials.
Prerequisite: MATI35YI/I37YI; MAT223HI; PHYI38YI/I40YI
GLG205HI Confronting Global Change 26L, 8T
The emergence of society as a major geological force is considered in terms of the evolving debate about the consequences of human activity for the habitability of our planet. Major issues such as climate change, environmental pollution, and depletion of natural resources are examined. GLG205HI is primarily intended as a science Distribution Requirement course for Humanities and Social Science students

## GLG206HI Materials of the Earth 26L, 39P

An overview of the structural, chemical and optical properties of minerals. Laboratories on the identification of minerals in hand specimen and thin section. A mandatory 2 day field trip in late September.
Prerequisite: CHM $(138 \mathrm{HI}, \mathrm{I} 39 \mathrm{HI}) / I 5 \mathrm{IYI}$ is recommended

## GLG207HI Rock-forming Processes 26L, 39P

Origin and classification of igneous, sedimentary and metamorphic rocks and their associated ore deposits. Emphasis is placed on formation of rock types in the context of plate tectonic theory, and the practical aspects of rock identification in hand sample and thin section.
Prerequisite: GLG206HI

GLG216HI Dynamic Geology
26L, 39P
A survey of principal physical, biological and chemical processes shaping the Earth. Laboratories will explore these processes in more detail through a series of problem sets.
Prerequisite: CHM ( $138 \mathrm{HI} / \mathrm{I} 39 \mathrm{HI}) / \mathrm{I} 5 \mathrm{IYI}$ is recommended.

## GLG2I7HI Earth Evolution

26L, 39P
An introduction to the evolution of the biosphere from the earliest stabilization of the Earth's crust. Patterns of evolution and extinction are related to physico-chemical and biologicallymediated changes at the Earth's surface. Laboratories cover major groups of invertebrate fossils, microfossils, their classification and living analogues.
Prerequisite: BIO I50YI is recommended
ENV234YI Environmental Biology
See "Centre for Environment"

## GLG299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.

ENV3I5HI | Chemical Analysis of Environmental |
| :--- |
| Samples |

See "Centre for Environment"
GLG3I8HI 26L, 39P

An overview of the nature and origin of igneous and metamorphic rocks, with particular emphasis on the interpretation of textures and mineral assemblages as they reflect conditions of rock formation. Laboratory exercises familiarise students with the most common igneous and metamorphic rock types, and provide practical examples of the theoretical principles discussed in lectures. This course also has a mandatory weekend field trip to view igneous and metamorphic rocks and structures. The venue for the trip alternates yearly between Bancroft and the Montreal area. Prerequisite: GLG $202 \mathrm{HI}, 206 \mathrm{HI}, 207 \mathrm{HI}$
GLG319HI Metamorphic Processes 26L, 39P
Descriptive petrography and classification of metamorphic rocks; metamorphic processes and evolution of metamorphic rocks; interpretation of metamorphic rocks. Prerequisite: GLG $202 \mathrm{HI}, 206 \mathrm{HI}, 207 \mathrm{HI}$

## GLG340HI Field Course I:White Fish Falls TBA

 Manitoulin IslandA ten-day field course in mid-May or late August. Students are introduced to field geology and to basic field measurement, mapping and documentation techniques in the Espanola

- Manitoulin Island area, west of Sudbury. Students are responsible for the cost of board and lodging and transport to and from the field area.
This is a summer session course and students must also register with the Department in the preceding term
Prerequisite: GLG207HI, $216 \mathrm{HI}, 2 \mathrm{I} 7 \mathrm{HI}$ or permission of instructor


## GLG345HI Structural Geology 26L, 39P

The development of geological structures at a variety of scales is examined using the concepts of stress, strain, material behaviour and tectonic setting. Laboratory work focuses on modern methods of structural analysis and their applications in geotechnical engineering and economic geology.
Prerequisite: GLG2 I6HI or MIN I85HI

## GLG35IHI Geochemical and Biological 26L, 26P

 Regulation of Aqueous SystemsAn introduction to aqueous environmental geochemistry emphasising the importance of chemical equilibria, mass transport, and microbiological activity in regulating the chemical composition of natural and contaminated systems.
Prerequisite: CHM ( $\mathrm{I} 38 \mathrm{HI}, 139 \mathrm{HI}$ )/I5 I YI; and any 2 nd year
science course. GLG 202 HI is recommended.

## GLG360HI Sedimentary Geology 26L, 39P

An introduction to the methods for studying sedimentary rocks in surface and subsurface. Petrographic description and classification of sedimentary rocks are dealt with in lectures and laboratory exercises, followed by a treatment of the principles of stratigraphic documentation and correlation, facies-analysis methods, and a brief description of depositional systems. Prerequisite: GLG207HI, $216 \mathrm{HI} / \mathrm{MIN}$ 185HI

## GLG37IHI/ Directed Studies

372YI
An individual study program chosen by the student with the advice of, and under the supervision of, a staff member. Such work may involve obtaining data in the field or lab and analysing it, an interdisciplinary research project, and supervised readings. Prerequisite: enrolment in a Geology Major or Specialist

Program of Study; completion of at least two full course
equivalents of 200 -series GLG courses.

## GLG398H0/ Independent Experiential Study Project

 399Y0An instructor-supervised group project in an off-campus setting. See page 47 for details.

## GLG423HI Mineralogy

39L
Crystal chemistry of the major rock forming minerals. The course covers the underlying concepts behind the behaviour of minerals as solid-state materials including: Structure and bonding of minerals, chemical substitutions and solid-state transformations, high temperature and pressure behaviour, chemical weathering and kinetics.
Prerequisite: GLG206HI

## GLG430HI Basin Analysis <br> 39L, I3P

Architecture and evolution of sedimentary basins in relation to plate-tectonic setting and crustal properties. Sequence stratigraphy: sequence models and sequence forcing mechanisms tectonism, eustasy, climate change. The global-cycle-chart controversy. World-wide review of basins in the context of plate tectonics.
Prerequisite: GLG360HI

## GLG436HI Paleoecological Assessment 26L, 39P of Environmental Change

The use of proxy data (terrestial and aquatic microfossils) to infer past environmental conditions. The nature and extent of Quaternary environmental change is considered in the context of assessing current issues such as acidification, metal pollution, eutrophication and global climate change. Paleoenvironmental techniques are applied in the laboratory.
Prerequisite: A 200-level course from one of BIO, GGR, GLG
Recommended preparation: BIO468HI/469YI/GLG2I7HI

JGP438HI Shallow Crust Geophysics 26L, 39P
An introduction to the geophysical exploration of the subsurface. Topics include gravity, seismic, magnetic, electrical and electromagnetic surveying and their application in prospecting, hydrogeology, and environmental assessments. Exclusion: PHY496HI
Prerequisite: GLG345HI or permission of instructor

## GLG440HI Advanced Petrology 26L, 39P

Integrated field, experimental and theoretical approaches to understanding the petrological diversity of igneous and metamorphic rocks. Topics include development of thermobarometers for igneous and metamorphic rocks, the importance of oxygen fugacity in petrogenesis, melting/ solidification and metamorphism and igneous activity in the context of global tectonics.
Prerequisite: GLG3I8HI

## GLG44IHI Remote Sensing of Earth and 26L, 39P

 the Terrestrial PlanetsRemote sensing of Earth and terrestrial planets; introduces theory and principles of optical and radar remote sensing. Applications to new planetary data, including those from Earth, Mars, and the Moon, are emphasized. Practical components of the course involve GIS applications for the synthesis and analysis of multiple datasets.
Prerequisite: At least two full course equivalents from any 200series Science courses.

## GLG442HI Mineral Deposits <br> 26L, 39P

Geology and geochemistry of ore deposits. Origin and interpretation; systematic ore mineralogy, in hand specimen and reflected light microscopy.
Prerequisite: GLG 207HI
GLG443HI Ore Genesis and Exploration 26L, 39P
Genesis of ore deposits. The basic tools for studying ore genesis such as stable isotopes, fluid inclusions and sulfide mineralogy and their applications to selected types of ores.
Prerequisite: GLG 442HI
GLG445HI Field Course II: Benny Belt TBA
Advanced geological mapping project in a challenging field environment. Students learn to compile existing geoscience data, create a geological map and prepare a professional final report on their activities and findings. Students are responsible for the costs of board, lodging and transportation for a 14-day field trip.
This is a summer session course and students must also register with the Department during the preceding term.
Prerequisite: GLG207HI, GLG340HI/MIN240F, GLG 345 HI or permission of instructor

## GLG448HI Field Course III: Chalk River TBA

A two-week course in late summer designed to familiarize students in a variety of hydrogeological and biogeochemical field techniques; based at Atomic Energy Canada Laboratories, Chalk River, and includes a mixture of lecture, laboratory and field exercises. Students are responsible for the cost of board and lodging and transport to and from the field area.
This is a summer session course and students must also register with the Department during the preceding term. Prerequisite: GLG35IHI or permission of instructor

## GLG450HI Contaminant Fate and <br> 26L, 26P Transport in Subsurface <br> Environments

Drawing primarily on examples from hydrogeology, this course explores physical, chemical and isotopic constraints on contaminant source transport and attenuation
Prerequisite: GLG35IHI or permission of instructor

## GLG465HI Geodynamics

Exploration of physical Earth processes and their relationship to large-scale geological phenomena. Mantle convection as plate tectonic engine; intraplate/plate boundary lithospheric deformation including orogenesis and crustal subsidence. Focus on reconciling geodynamic theory/modelling with geological/geophysical
observations.
Prerequisite: GLG345HI or permission of instructor

## GLG470YI Research Project TBA

Laboratory research emphasizing methods and experimental techniques applicable to geology. Students must obtain the consent of an instructor and register with the Undergraduate Coordinator before enrolling and are urged to do so toward the end of their Third Year. Students are required to give an oral presentation of research results to an open meeting of the Department. Exclusion: GLG47IHI
Prerequisite: Completion of the required 300-level courses in a specialist program involving Geology and permission of the Department

## GLG47IHI Research Project TBA

Laboratory research emphasizing methods and experimental techniques applicable to geology. Students must obtain the consent of an instructor and register with the Undergraduate Coordinator before enrolling and are urged to do so toward the end of their Third Year. Students are required to give an oral presentation of research results to an open meeting of the Department.
Exclusion: GLG470YI
Prerequisite: Completion of the required 300 -level courses in a specialist program involving Geology and permission of the Department
Faculty
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Professors Emeriti
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D.W.J.Vincent, MA, Ph D (T)
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Professor and Associate Chair for Graduate
Studies
TBA
Associate Chair for Undergraduate StudiesTBA
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Assistant Professors
A. Fenner, Ph D
S. Soldovieri, MA, Ph D (University of Toronto Mississauga)
M. Stock, Dr phil
Lecturer
E. Boran, Ph D
DAAD Visiting Associate Professor
Stefan Haas, Dr phil habil
German-speaking countries enjoy a long tradition at the culturaland political core of Europe. During the last two hundred yearstheir importance has steadily increased, and with the recentdevelopments in eastern Europe their influence seems certainto grow even more.
The importance of the German language has grown correspondingly: it is the second foreign language after English in the countries of central and eastern Europe, and its use is spreading within the European Community. Learning German opens the door to many fields of intellectual, technical and politico-economic endeavor. German scholars have been leaders in philosophy, the sciences, history, archaeology, sociology and political science. German literature is equally distinguished: writers like Goethe, Kafka, Rilke, Brecht, Mann, Grass, Jelinek, etc., have dealt with the widest possible range of human problems and concerns, and have been recognized worldwide.
The Department of Germanic Languages and Literatures offers courses on literature from the Middle Ages to the present, so that the student may acquire an overview of this significant element of German life and culture. We offer language courses on the beginning, intermediate and advanced levels,
with practice in reading, writing, comprehending and speaking German, as well as stylistics, linguistics, and the specialized vocabulary and concepts of business. Language and literature instruction is integrated as far as possible, with the aim of teaching students advanced critical literacy in German. The department offers a minor in Yiddish, with instruction offered at the beginning, intermediate and advanced levels. German combines well with other modern languages and literatures, and double-majors are encouraged. Students in a variety of programs, such as Cinema Studies, European Studies, Literary Studies, Drama, and others, will benefit from courses in German language, literature and culture.

The Department supports opportunities for students to study and work in Germany, by encouraging participation in programs established by the German government, by Canadian universities, and by our own Arts and Science Faculty's "Study Elsewhere Program." One of these is the exchange program under which Toronto students can spend the academic year at the Humboldt University in Berlin.
A knowledge of German is a virtual necessity for specialists in many disciplines; it is also very useful in certain career areas (e.g., the foreign service, interpretation and translation, librarianship, business and commerce, music, tourism, and of course teaching). The successful completion of a four-year program, including seven approved courses in German, may entitle the student to enter the M.A. or Ph.D. program in the Graduate Division of the Department.

Students entering with some previous knowledge of German but without an OAC or equivalent qualification may be asked to write an initial assessment test and will then be advised to take courses at the appropriate level. Students who have taken German in high school to OAC or equivalent level will normally begin with GER200YI.

Information on studies in German Language and/or Literature can be obtained from the Associate Chair for Undergraduate Studies.

Enquiries: Department of Germanic Languages and Literatures, 50 St. Joseph Street, Room 322 (416-926-2324).
E-mail: german@chass.utoronto.ca
Web site: www.chass.utoronto.ca/german

## German Programs

## German Studies (Arts program)

Enrolment in the Specialist and Major programs is open to students who have successfully completed four courses and who have the required competence in German. Students without OAC German or equivalent should arrange their courses in consultation with the Department. Students who have any prior experience with German and are taking any GER language course for the first time should contact the Department for details on placement tests.

## Specialist program:

(IO full courses or their equivalent)
The Specialist Program requires that at least four of the ten courses must be at the 300+ level.
I. GERIOOYI,
2. GER200YI, 205 HI
3. GER 300 Y , $305 \mathrm{HI}, 3 \mathrm{IOHI}$
4. GER 400 HI

5 The remainder of the courses must be chosen from: GER courses at the $200+$ level. Of these courses not more than 2 full courses may be taken in English. Permission may be granted to count cognate courses from other departments.

## Major program:

(7 full courses or their equivalent)
The Major Program requires that at least three of the seven courses must be at the 300+ level.
. GERIOOYI
2. GER200YI, 205 HI
3. GER $300 \mathrm{YI}, 305 \mathrm{HI}, 310 \mathrm{HI}$
4. The remainder of the courses must be chosen from GER courses at the 200+ level. Permission may be granted to count cognate courses from other departments. No more than I. 5 full courses may be taken in English.

## Minor program:

(4 full courses or their equivalent)
Four GER full course equivalents, which must be approved by the Department before enrolment in the Second Year. One of these courses must be a 300 -level course. No more than 0.5 full courses may be taken in English.

## Business German (Arts program)

## Minor Program:

(4 full courses or their equivalent)
Four GER full course equivalents, including GER370HI and GER470HI.The remainder of the four courses or equivalent must have a GER designator.

## German and Linguistics (Arts program)

## Specialist Program

This specialist program consists of I3 or 14 courses in linguistics and German

## Linguistics

For the linguistics requirement, see "Linguistics and Languages Other than English.

## German:

(6 full courses or their equivalent)
I. GERIOOYI
2. GER200YI
3. GER300YI
4. GER 400 HI
5. The remainder of the six courses must have a GER designator.

## German - See also Modern Languages and Literatures: Linguistics and Languages <br> AI and Malke Green Yiddish Program (Arts Program)

Minor program:
(4 full courses or their equivalent)
I. GER260YI
2. GER360HI
3. GER $36 \mathrm{IHI} / 362 \mathrm{HI} / 363 \mathrm{Y} / 364 \mathrm{HI}$
4. GER 462 HI
5. The remaining courses should be taken from: GER490HI/ 490YI, ENG256YI, GERI00YI, HIS208YI/433HI, SLA202HI or other approved cognate courses.

## German Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), all GER courses are classified as HUMANITIES courses.

## HUMI99HI/YI First Year Seminar

52S
Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course; see page 47.

## Notes

Students with German-speaking background are expected to consult the Department about their programs. The Department reserves the right to place students in the language course appropriate to their level of language skill.
Reading lists for the various courses are available from the Department.

Students intending to specialize in German may also consult the Calendar of the University of Toronto Mississauga for additional course offerings which may be counted for specialization.

GERIOOYI Introduction to German I I04P
An intensive language course for students with no previous knowledge of German. Practice in comprehension, reading, writing and speaking. This course can be counted towards all programs in German.
Exclusion: OAC German or equivalent
GERIOIHI Introduction to German 52P
An intensive language course for students with some prior knowledge of German but not quite OAC level. This course is equivalent to the Spring Term of GERIOOYI.
Prerequisite: Permission of Department

## GERI50HI Introduction to German Culture 39S

This is a survey course which introduces students to German social, cultural, and intellectual history. This course is taught in English and is open to all students.
Exclusion: GERI50YI
GER200YI Introductory German II 78P, 26T
Continuation of work done in GERIOOYI/IOIHI. Further expansion of basic grammar and vocabulary, practice in
comprehension, translation, composition, and conversation.
Exclusion: GER200HI/201 HI; not open to fluent or nearly fluent speakers of German
Prerequisite: GERIOOYI/IOIHI, OAC German or equivalent, or permission of the department.
GER204HI German Literature in Translation 39 S
An overview of some key works in German literature. This course serves as an introduction to German literature, and is suited for students with little or no prior knowledge of the German language.
Exclusion: GER204YI

## GER205HI German Literature I

An introduction to the study of German literary texts in the original German. This course is required for majors and specialists.
Exclusion: GER304HI
Prerequisite: GERIOOYI, or permission of department
GER232HI German Drama in Translation
Representative dramas of the 19th and 20th centuries by a variety of authors are analyzed in depth and the dramatic forms highlighted. When available, a film version of the drama will be discussed.

GER260YI Elementary Yiddish
Introduction to Yiddish language, literature, and culture, featuring intensive practice with a native speaker. The dialect taught is that of the text College Yiddish by Uriel Weinreich.

## GER299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.

## GER300YI Intermediate German

German at the intermediate level: extension of vocabulary, specific problems of grammar, practice in translation, essaywriting, reading and conversation. The Department reserves the right to place students in the appropriate course in the series GER200YI and 300YI.
Exclusion: GER $300 \mathrm{HI}, 30 \mathrm{IHI}$
Prerequisite: GER200YI/ or permission of the department
GER305HI German Literature II
Building on the work of GER205HI, this course explores more complex literary texts in the original German. It thus provides a bridge to the other literature courses in the program. This course is required for majors and specialists.
Prerequisite: GER205HI, or permission of the department
$\begin{array}{ll}\text { GER3IOHI } & \begin{array}{l}\text { Topics in Contemporary } \\ \text { German Culture }\end{array}\end{array}$
Focus is on contemporary German culture as expressed
through a variety of media.
Prerequisite: GER300YI or equivalent as decided by the department
GER324HI Dreams- Desires - Delusions 26S
These central themes of Romanticism are examined through reading texts by authors of the era.
Prerequisite: GER205HI, or permission of the department

## GER325HI I9th Century German Literature 26S

An examination of German literary texts in their social and historical context.
Prerequisite: GER205HI, or permission of the department

## GER327HI Deviance - Madness - Outsiders 26S

An analysis of the literary confrontation with deviance, madness, and the outsider.
Prerequisite: GER205HI, or permission of the department

## GER33IHI Kafka in Context 26S

Franz Kafka's texts situated within the literary, historical, and philosophical context of fin-de-siècle Prague and central Europe. Prerequisite: GER205HI, or permission of the department
GER334HI Weimar Culture
Expressionism, dada, Bauhaus, the 'Golden Age' in German film: an examination of literary and artistic movements in the era between World War I and Nazism.
Prerequisite: GER205HI, or permission of the department

GER335HI Writing Memory: 1945 to
the Present
An examination of post-World War II German literature and culture from "Zero Hour" through to contemporary debates about the Holocaust and its memorialization.
Prerequisite: GER205HI, or permission of the department
GER35IHI Topics in German Cinema I 26S, 26P This introduction to German Cinema will provide a historical perspective on German film and the innovations of German filmmakers. Students will engage with film language and the analysis of film.
Prerequisite: GER205HI, or permission of the department
GER354Y0 Special Topics Summer Course in Berlin The topics depend on the instructor from year to year. Interested students can address questions to Woodsworth College. This course is taught in English and is open to students from other disciplines.
Prerequisite: Permission of the department
Recommended preparation: I00-level HIS/POL/GER course/ International or European Studies

## GER355Y0 Summer Course in Berlin

Students who wish to petition the department for credit toward a specialist or major program in German will be required to do part of their work in German.
GER360HI Intermediate Yiddish 39P
Review of basic grammar, stylistics, study of short literary texts.
Conducted in Yiddish.
Exclusion: GER360YI
Prerequisite: GER260YI

## GER36IHI Yiddish Literature and Culture 26S in Translation

An overview of the major figures and tendencies in modern Yiddish literature and culture from the beginning of the 19th century to the present. Readings (in English) of modern Yiddish prose, poetry, drama and cinema.

GER362HI | Soviet and Kosher: Jewish |
| :--- |
| Culture in the Soviet Union |

Soviet Jewish culture between 19I7 and I94I.Works in
translation by Soviet Yiddish writers and poets, performances
of central Yiddish theatres, and publications in central Yiddish
periodicals will be analyzed as expressions of Soviet ideology
and of ethnic identity.
Recommended preparation: HIS208YI, 242HI, 250YI, or with
permission of the department

GER363Y Cultural History of East $52 S$
European Community 1800-2000
This course examines how artistic works created by Jews portrayed and interpreted historical realities during that period. All artistic media will be examined.
GER364HI Introduction to the History of 26L, 26P Yiddish Cinema
This course traces the history of Yddish cinema from its beginnings in 1911 to the end of the twentieth century. There will be 2 hours viewing time and 2 hours lectures per week. Cross-listed with the Cinema Studies Program Innis College.

## GER370HI Business German I

39P
An introduction to the use of German in the professional/
business context. Emphasis on oral and written communication.
Prerequisite: GER200YI or permission of the department
Note:This course is required for the minor program in Business German.

## GER398H0/ Independent Experiential Study Project

 399Y0An instructor-supervised group project in an off-campus setting. See page 47 for details.

## GER37IH0 Berlin Summer Internship

A three week intensive internship in Berlin, focusing on work/ study and intercultural learning.
Prerequisites: good working knowledge of German and permission from the instructor.

## GER400HI Advanced German (formerly GER400YI)

For students with a firm grasp of German. Review of advanced features of the language. Emphasis on both oral and written communication. Introduction to aspects of stylistics.
Exclusion: GER403HI, GER400YI
Prerequisite: GER300YI or permission of the department

## GER4IOHI Topics in German 26S Intellectual History

An examination of key moments and themes in German intellectual history from the Enlightenment to the present.
Prerequisite: GER 305 HI , or permission of the department
GER4IIHI Introduction to Critical Theory $26 S$
Current debates in critical theory. This course will familiarize students with some of the key issues in critical theory today, and provide the background to these debates.
Prerequisite: Permission of the department
GER4I2HI Modernity and Its Discontents 26S
History of various concepts of modernity. This course traces theories of modernity in German literature, culture and theory. Prerequisite: GER305HI, or permission of the department

## GER420HI The Age of Goethe

26S
An examination of Goethe and his contemporaries as they respond-through drama, prose, and poetry-to the challenges of changing times.
Exclusion: GER420YI, $460 \mathrm{HI}, 460 \mathrm{Y}$ I
Prerequisite: GER305HI, or permission of the department

## GER42IHI Gender and Identity 26S

With the representation of gender as its focus, this course will examine key works of modern German literature, where typical themes range from love, lust and treachery to masochism, cross-dressing and other forms of gender trouble. Prerequisite: GER305HI, or permission of the department

## GER422HI Focus On Berlin <br> 26S

An exploration of the cultural development of Berlin through literature, from the Bismarckian era through the Weimar Republic and the Third Reich to the construction of the Berlin Wall and German unification.
Prerequisite: GER305HI, or permission of the department

## GER423H Different Voices <br> 26S

Different topics and a variety of different authors; to be decided from year to year.
Prerequisite: GER305HI or permission of the department

## GER 424HI Writing the Self in Poetry 26S

An exploration of representations and articulations of the self in German poetry.
Prerequisite: GER 305 HI or permission of the department.

## GER426HI Middle High German <br> $39 S$

An introduction to the language, literature and civilization of Medieval Germany.
Prerequisite: GER300Y I/GER205HI or permission of the department
GER429HI Topics in Medieval 26S
German Literature
A study of specific topics in Medieval Literature.
Prerequisite: GER426HI or permission of the department
GER 430HI Topics in German Literature $\mathbf{2 6 S}$ and Culture
An open course which explores very specific aspects of
German literature and culture. It may change from year to year. Prerequisite: GER 305 HI or permission of the department.

## GER462HI Advanced Yiddish <br> 26P

Advanced reading, writing, vocabulary and conversation. Study of poetry, short fiction, and memoir literature by leading authors. Selected advanced grammatical topics presented in conjunction with the study of texts. Conducted entirely in Yiddish.
Exclusion: GER46IYI
Prerequisite: GER360YI or permission of the department
GER470HI Business German II 39P
Intensive development of the linguistic skills needed in the context of a German business environment.
Prerequisite: GER370HI/370YI or permission of the
department. This course is required for the Business
German minor program.
GER490HI Independent Study
A reading and research project in Germanic literature or linguistics.
Prerequisite: Permission of Department to be obtained by May
Ist for the Fall Term; by November Ist for the Spring Term.

## GER49IYI Individual Studies

$52 S$
A scholarly project chosen by the student and supervised by a member of the staff. The form of the project and the manner of its execution are determined in consultation with the supervisor. All project proposals should be submitted by June I, 2007.

Global Health: see Life Sciences: Human Biology

Greek: see Classics

## Faculty

University Professor Emeritus
J.M. Beattie, MA, Ph D, FRSC (U)
J.M. Bliss, MA, Ph D, FRSC
J.M.S. Careless, OC, AM, Ph D, FRSC (V)

Professors Emeriti
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C.C. Berger, MA, Ph D, FRSC
W.C. Berman, MA, Ph D
P. de B. Brock, MA, Ph D, D Phil
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J.C. Cairns, MA, Ph D
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## Associate Professor and Chair of the Department

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Associate Professor and Associate Chair A.D. Hood, MA, Ph D

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G. Silano, MA, Ph D (SM)
A. Smith, MA, Ph D
C. N. Terpstra, MA, Ph D
B. Todd, MA, D Phil
W.Wark, MA, Ph D
P.Wróbel, MA, Ph D

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P. Cohen, Ph D
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Mississauga)
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D. Williams, MA, Ph D (University of Toronto Mississauga)
R.Wittmann, MA, Ph D (University of Toronto Mississauga)

History is both an art and a science. Historians study the past to understand it in its own terms, to gain insight into how our world has developed, and in order to influence the present. Historical inquiry is a response to the need for information and an understanding of the broad patterns of social, economic, cultural and political development.

The study of history is a crucial part of any liberal arts program. To understand our own society and the forces for change that are propelling it towards an uncertain future, it is necessary to understand something of the past. Every political institution, social value and economic custom is itself the result of past change and is simultaneously being transformed. It is as difficult for us to appreciate our own society without some sense of how different things were in the past as it is for individuals to understand themselves without the aid of personal and family memory.

The Department of History offers a wide range of courses that are tailored to meet the needs of students at every stage of their undergraduate careers. The 100 -series courses are designed for students who are new to the University. They cover a wide chronological period and a wide geographical area. The 200-series courses are designed to introduce students to specific national or geographic histories over a broad period of time. Although they are designated as 200 -series courses they are open to first-year students, have no prerequisites, and students without previous university experience should be able to complete them without difficulty. The 300 -series courses, not open to first-year students, usually deal with more specialized subject-matter and frequently have prerequisites. The 400 -series courses represent the culmination of an undergraduate's study of history and consist of seminars with a maximum enrolment of 14 .

There are courses at most levels in American, Asian, African, and Latin American, British, Canadian, East European, Russian, European, International Relations and Medieval history. The fifty-five full-time professional historians who constitute this Department offer a greater variety of courses in history than can be found at any other university in Canada, and to study with any of them is certain to be an enriching experience.

More detailed information concerning the department, history programs and particular courses can be found on our website: www.chass.utoronto.ca/history. There is a History Students' Association in the Department and there is student
participation in the Department meetings and major standing committees.

Undergraduate Administrator:
Ms. Louise Nugent, Room 2074, Sidney Smith Hall (4I6-9783362)

Enquiries:
Sidney Smith Hall, I00 St. George Street, Room 2074 (416-9783363)

## History Programs

Students may also use certain NMC history courses to fulfill Department of History program requirements (see History website).

## History (Arts program)

## Specialist program:

(IO full courses or their equivalent)
Students may enrol in the Specialist Program in History after completing at least four courses including two HIS courses, one of which must be a 100 -level HIS course. A mark of at least $73 \%$ in two HIS courses is required.
First Year:
A 100-series HIS course; in addition, students may take one 200-series HIS course
Higher Years:
Additional HIS courses to a total of ten*, meeting the following requirements:
I. At least five $300 / 400$-series courses including one and a half 400-series HIS courses
2. One course from each of the following divisions*
I. Asia/Africa/Middle East
II. Canada/United States/Latin America/Caribbean III. Europe
3. One pre-modern course*

* The History website identifies pre-modern courses, HIS substitutes, and indicates courses satisfying the divisional requirements. Specialists may substitute history courses taught elsewhere in the faculty for up to three of the HIS courses. These substitutes may also be used to fulfill Items I through 3 of the specialist program.


## Major program:

(7 full courses or their equivalent)
Students may enrol in the Major Program in History after having completed four full courses or their equivalent, including one 100 -level HIS course; a minimum grade of $65 \%$ in this or another HIS course is required.

## First Year:

A 100-series HIS course; in addition, students may take one 200-series HIS course
Higher Years:
Additional HIS courses to a total of seven*, meeting the following requirements:
I. At least two 300/400-series courses (in addition to item I above)
2. At least one course from each of the following divisions*:
I. Asia/Africa/Middle East
II. Canada/United States/Latin America/Caribbean
III. Europe
3. One pre-modern course*

* The History website identifies pre-modern courses, HIS substitutes, and indicates courses satisfying the divisional requirements. Majors may substitute history courses taught elsewhere in the faculty for up to two of the HIS courses. These substitutes may also be used to fulfil itemsl through 3 of the major program.


## Minor program:

(4 full courses or their equivalent)
Students may enrol in the Minor Program in History after having completed four full courses or their equivalent.
Completion of a 100 -series HIS course is recommended before enrolment.

First Year:
A 100 -series HIS course
Higher Years:
Additional HIS courses to a total of four*, including at least one 300/400-series course

* As many as two courses chosen from a list of history courses taught elsewhere in the faculty may be substituted for HIS courses for the HIS Minor program. Substitutes may also be used to satisfy the 300/400-series course requirement. A list of HIS substitutes is found on the History website.


## History and Political Science (Arts program)

## Specialist program:

(14 full courses or their equivalent)
Students may enrol in the Specialist Program in History and Political Science after completing at least four full courses or their equivalent and fulfilling the following requirements:two HIS courses, one of which must be a 100 -level HIS course; grades of at least $73 \%$ in two HIS courses; one POL full course or the equivalent in half courses with a mark of at least $67 \%$; a CGPA of at least 2.0. Students applying to enrol after Second Year must have completed at least eight full courses or their equivalent and fulfill the following requirements: two HIS courses and two POL full courses or the equivalent in half courses with a mark of at least $70 \%$ in each; and a CGPA of at least 2.3.

## History (7 courses):

First Year:
A 100-series HIS course; in addition, students may take one 200-series HIS course
Higher Years:
Additional HIS courses* to a total of seven, meeting the following requirements:
I. Courses must come from at least two of the following divisions*:
I. Asia/Africa/Middle East
II. Canada/United States/Latin America/Caribbean III. Europe
2. One $300 / 400$-series course, and one additional 400 -series course
3. Two HIS courses must correspond in area and theme to two POL courses (list available in the History and Political Science Departments or Department Website)

* The History website identifies pre-modern courses, HIS substitutes, and indicates courses satisfying the divisional requirements. Specialists may substitute history courses taught elsewhere in the faculty for up to three of the HIS courses.


## Political Science

(7 courses including at least one 300+ series course and one 400-series course)

## NOTE:

At least one course in Canadian politics must be completed. The Canadian politics requirement will be satisfied by only POL I03YI/2I4YI.

First Year:
POL I03YI/I05YI/I08YI
Higher Years:
I. POL 200YI
2. Two full courses from the following: POL $20 \mathrm{IYI} /(203 \mathrm{YI} /$ $207 \mathrm{YI}) / 208 \mathrm{YI} / 2 \mathrm{I} 4 \mathrm{YI} / 2 \mathrm{I} 5 \mathrm{YI}$
3. Three additional POL courses

## History Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), all HIS courses are classified as HUMANITIES courses (except HIS IO3YI, which has NO distribution requirement status).

## HUMI99HI/YI First Year Seminar

Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course; see page 47.

## 100-Series Courses

Note:
All 100-series HIS courses are mutually exclusive. First-Year students may take 200 -series courses.
$\begin{array}{ll}\text { HISI03YI } & \begin{array}{l}\text { Statecraft and Strategy:An } \\ \text { Introduction to the History }\end{array}\end{array}$ of International Relations
An analysis of the development of the international system, from 1648 to 1945, which highlights the role of war as an instrument of national policy, as a determinant of the system of states and as a threat to international society.
Exclusion: HISI04YI, I06YI, I07YI, I09YI
HIS I03YI does not count as a distribution requirement course in any category
HISI04YI Ten Days that Shook 52L, 26T the World
The events since 1600 , the consequences of which continue to resonate through primary documents, historical additional reconstructions, students are exposed to the processes by which the past is given meaning. Students are encouraged to be aware of the impact of events and be sensitive to the interconnectedness of the past.
Exclusion: HISI03YI, I06YI, I07YI, I09YI
HISI06YI Making the Americas, 52L, 26T
c. $1250-1780$
North and South America and the Caribbean from Columbus
to the American Revolution: aboriginal cultures, European
exploration, conquest and settlement, the enslavement of Africans, the ecological impact of colonization.
Exclusion: HISI03YI, I04YI, I07YI, I09YI

## HISI07YI Approaches to East 52L, 26T Asian History <br> This course draws on the history of China, Korea and Japan

 between 1600 to 1950 to explore historical issues of gender, nationalism, war and relations with the West.Exclusion: EAS204YI, HISI03YI, I04YI, I06YI, I09YI

## HISI09YI The Development of European 52L, 26T

 Civilization, 1350-1945The shape of traditional society; the forces at work on the social, political, economic, cultural and intellectual structures of Western Europe since the high Middle Ages: the structure of Traditional Society; the First Period of Challenges, 1350-1650; the Second Period of Challenges, I650-I8I5; Confidence, Stability and Progress, 1815-1914; the Collapse of the Old Order and the Condition of Modern Europe, 1914-I945. Exclusion: HISI03YI, I04YI, I06YI, I07YI

## 200-Series Courses

HIS202HI Gender, Race and Science 26L, IOT
This course examines scientific ideas about human difference from the 18th-century to the present. It explores how scientists and their critics portrayed the nature of race, sex difference, and masculinity/femininity in light of debates over nation, citizenship, colonialism, emancipation, knowledge and equality. The course will also introduce students to the uses of gender and race as analytic categories within the practice of history. While the course draws much of its subject matter from the history of the United States, it also explores selective issues in European and colonial contexts.

## HIS208YI History of 52L, 20T the Jewish People

An introduction to the history of the Jews throughout the world over the past two thousand years.
Recommended preparation: HISI03YI/I08YI/I09YI
HIS220YI The Shape of Medieval Society 52L, 20T
Economic, political, religious, and educational ideas and institutions of the Middle Ages, from the late Roman period to the fifteenth century.

HIS232YI The British Imperial Experience52L, 20T
The nature of European imperialism; expansion and
development of the British Empire; Imperial strategy; the impact of war and nationalism; thoughts on the Commonwealth.

## HIS24IHI Europe in the Nineteenth 26L, I2T Century, 1815-1914

An introduction to modern European history from Napoleon to the outbreak of World War I. Important political, economic, social, and intellectual changes in France, Germany, AustriaHungary, Italy, and other countries are discussed: revolution of 1848, Italian and German unification, racism and imperialism, the evolution of science, art, and culture, labour protest, and the coming of war.
Recommended preparation: HISIO3YI/I09YI
HIS242HI Europe in the 20th Century 26L, I2T
The evolution of European politics, culture, and society from 1914: the two world wars, Fascism and Nazism, the post-

1945 reconstruction and the movement towards European integration.

## HIS243HI Early Modern Europe, 26L, IOT

 1450-1648The political, social, economic, and intellectual history of continental Europe. The Renaissance, the Reformation, Counterreformation, growth of the territorial monarchies, the religious wars.

## HIS244HI Early Modern Europe, 26L, IOT 1648-1815

The political, social, economic, and intellectual history of continental Europe. Development of royal absolutism, social change and the crisis of the ancient regime, the Enlightenment, the French Revolution, the Napoleonic era.

## HIS245YI Women in European History 52L, 20T

An introductory survey tracing women's participation in the political, economic, intellectual, and social history of Europe from the High Middle Ages to the Twentieth Century.

## HIS250YI History of Russia, 860-1917 52L, 20T

This course is an introductory survey that examines the political, social, and cultural developments that shaped the Russian empire from the settlement of Kiev in the 9th century to the collapse of the Romanov dynasty in 1917.
HIS25IYI History of East Central Europe 52L, 20T
The Polish, Czech, and Hungarian background; the Balkans in the late medieval and early modern periods. Renaissance, Reformation and Counter-reformation, decline and national awakening to the beginning of the 19th century. Partitioned Poland, nationalism in the 19th century; World War I, Peace Settlement, interwar years and the Communist period.

## HIS263YI Introduction to Canadian 52L, 20T

 HistoryAn introductory survey of Canadian History since the 16th century with extra focus on major themes and problems. Exclusion: HIS262YI

HIS27IYI American History Since 1607 52L, 20T
A survey of the economic, social, cultural, and political history of the United States from the colonial era to present times.

## HIS280YI History of China 52L, 20T

A broad overview of the history of China from earliest times to the present. The emphasis is on how the meaning of China and the Chinese people has changed through history.

HIS28IYI History of Modern Japan 52L, 20T
Political, military, social, economic, and intellectual history of Japan from beginning of Tokugawa period (1603) to the present. Emphasis on the long term modernization and democratization of Japan, and passage through imperialism and militarism to peace.
Exclusion: EAS223HI/223YI/HIS28IHI
HIS282YI History of South Asia 52L, 20T
An introductory survey addressing major themes in the history of South Asia, examining South Asian political economy, social history, colonial power relations and the production of culture. Emphasis is on the period after 1750, particularly the study of colonialism, nationalism, and postcolonial citizenship and modernity.
HIS283YI Southeast Asian Crossroads 52L, 20T This course surveys the historical experiences of the states that constitute present-day Southeast Asia and examines how long
term socio-economic trends affected the daily lives of Southeast Asians. Lectures introduce the major themes while weekly readings explore the major themes of the course:"state" structure; cultural commonalities; ethnic, class and gender relations; religious practice and trade.

## HIS29IYI Latin America:The Colonial 52L, 20T Period

The evolution of Spanish and Portuguese America from preColumbian civilizations to the wars of independence.

| HIS292YI | Latin America:The National 52L, 20T |
| :--- | :--- |
| Period |  |

A survey of Latin American history from the wars of independence to the present day.
HIS294YI Caribbean History \& Culture 52L, 22T An exploration of changes in the structure of Caribbean society beginning in 1492, including European contact, the conquest of native peoples, the emergence of large plantations, the impact of slavery, patterns of resistance and revolt and the changes brought about by emancipation.

## HIS295YI Introduction to African 52L, 20T History (formerly HIS295HI)

An introduction to the methodological and epistemological issues of African history-that is to say, questions about how and what we know about the African past are examined. Particular attention is paid to the differences in academic understanding of African history and African perceptions of the past. Topics include theories of diffusion, the importance of oral sources, and the interpretation of myths.

HIS296YI Black Freedom 52L, 20P
This course explores the profound contribution of people of African descent - from Olaudah Equaino to Angela Davis - to the history of the idea and practice of freedom in the West. Black writers and historical actors have been at the vanguard of re-conceiving, implementing, and realizing the Enlightenment project of freedom.
Exclusion: NEW296YI

## HIS299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.

## 300-Series Courses

## Note:

First-year students are not permitted to enrol in 300 -series HIS courses.

## HIS30IYI Imperial Spain <br> 52L

This course treats the political, social, and religious history of Spain and its empire ca. 1450-1714, including the history of colonial Latin America.
Recommended preparation: HIS243HI

## HIS302HI Material Culture in 26L

Victorian Britain (formerly HIS302YI)
An examination of the products of the first and second industrial revolutions in Victorian England. This course focuses on the cultural history of commercialization and consumerism. Exclusion: HIS302HI
Recommended preparation: HIS239HI/339YI

## HIS303YI The Mediterranean, 600-I700: 26L

 Crusade, Colonialism, DiasporaThe course treats contact and conflict between Christians, Muslims, and Jews in the premodern Mediterranean world. Within the framework of broad political and economic developments, the course explores a range of topics, including holy war, slavery, religious polemics, colonialism, the commerce in goods and ideas, and ethnic relations.
Recommended preparation: HIS220 or NMC273 or some medieval history

## HIS 304HI Topics in Middle East History 26L

An in-depth examination of Middle East historical issues.
Content in any given year depends on instructor. See History Website for more details.

## JHP304YI Ukraine: Politics, Economy 52L and Society <br> (formerly JHP 204Y)

The history of Ukraine from earliest times to the present.
Economic, political, and cultural movements; Kievan Rus', PolishLithuanian Commonwealth, Cossack state, national revival, twentieth century statehood, and unification. As this course is designed as an introductory course, the professor welcomes first- and second-year students to enroll, as well as upper-level students. (Given by the Departments of History and Political Science)
Exclusion: JHP204Y

## HIS305HI Popular Culture and Politics 26L

 in the Modern CaribbeanThis course examines the connections between popular culture and politics in the modern Caribbean. Aspects of popular culture such as sport, religion, and social constructions of gender will be discussed. The impact of post-war migration, race and racial nationalism and the upheavals of the 1960s on popular culture in the Caribbean will also be themes.
Prerequisite: HIS294Y।
HIS306HI Culture, Society and Gender 26L in England, I560-1730 (formerly HIS306YI)
Some of the main themes in English political, social, religious and intellectual history in the 17th century: the origins, character, and consequences of the English Civil War, the nature and effects of social change, and the changing role of religious forces in society.
Exclusion: HIS306YI
Recommended preparation: HIS238HI
HIS309HI The European Reformations 39L
What happens when a culture changes its religious organization and beliefs? Social and intellectual upheavals beginning in fifteenth century Europe created the split between catholic and protestant Christians and reshaped the spiritual and political landscape of sixteenth century Europe. Issues covered include religion and politics, toleration, gender, popular piety, class.
Prerequisite: HIS 243H / VIC 240 Y or permission of the instructor
HIS3IIYI Introduction to Canadian 52L, I3T International Relations
Canadian international affairs in a broader context. AngloAmerican as well as Canadian-American relations; the European background to questions such as the League of Nations,
appeasement and rearmament, which directly affected Canada without this country being consulted.
Recommended preparation: A course in Canadian history or politics
HIS3I2HI Immigration to Canada 26L
The peopling of Canada by immigrant groups from the 1660 s to the 1970 s. Immigration and multiculturalism policies; migration and settlement; ethnic communities; relations with the host society.
Recommended preparation: HIS262YI/263YI
HIS3I3HI Canadian Labour and the Left (formerly HIS3I3YI)
Canadian labour history from political action to collective bargaining in the period from Confederation to the present. Prerequisite: ECO244YI/HIS262YI/263YI/WDW244HI/YI Exclusion: HIS 3I3YI

## HIS3I4YI Quebec and French Canada 52L, I3T

A general survey tracing the political, social, and cultural development of a distinct society in Quebec and the rise of selfconscious French-speaking communities elsewhere in Canada.
HIS3I5HI Narratives of "Viet Nam" 26L
This course introduces students to the multiple ways in which the diverse populations inhabiting the geographic space of "Viet Nam" construct their histories. Perspectives from Chinese, Charn, ethnic minority and Vietnamese majority populations will be explored.
HIS3I6HI History of Advertising 39L
The rise of advertising as an economic, moral, and cultural force in the 19th and 20th centuries. Attention to advertising as a form of communication, the role of the mass media, stereotyping and the culture of consumption. Majority of course material deals with the experiences of the United States and Canada, focusing on the period after 1945.
Recommended preparation: HIS262YI/263YI/27IYI

## HIS3I7HI Modern Germany 1914 to the 26L Present

 (formerly HIS3I7YI)A survey of modern German history in the twentieth century. Topics include World War I and the postwar settlement, the Weimar Republic, the National Socialist dictatorship, the Holocaust, the division of Germany, the Cold War, German reunification, Germany and the European Union, nationalism, political culture, war and revolution, religious and ethnic minorities and questions of history and memory. Prerequisite: HIS24IHI, 242HI
Exclusion: HIS3I7YI
HIS3I8YI Canadian Environmental History 52L
A survey of major themes in the history of change in the Canadian environment from the 15th century to the present which include exploration, resource exploitation, settlement, industrialism, conservation and modern ecology.
Prerequisite: Eight full courses or equivalent
HIS3I9HI Renaissance France and 26L the Wars of Religion, 1483-1610
Considers the expansion of the French state at the close of the 100 Years War, cultural and social change during the Renaissance, religious change and the Protestant Reformation, the emergence of religious conflict and the Wars of Religion. A range of primary sources and historiographical perspectives will be considered.

Prerequisite: HIS $243 \mathrm{HI} / 309 \mathrm{HI} / 388 \mathrm{HI} / 443 \mathrm{HI}$ or permission of instructor

## HIS320YI Early Medieval Europe, 52L c. 300-I 100

Empire and reconstruction of society in the early Middle Ages, with emphasis on the Christian church, literate culture, and social institutions. The focus is Western Europe, but Islam and the Byzantine Empire are not disregarded.
Recommended Preparation: HIS220YI
HIS322YI The High Middle Ages 52L
Chronological survey of the history of medieval Europe from IIOO to approximately 1450 . The three main topics are: the formation of the modern states, the impact of urban development, and the evolution of spirituality.
Prerequisite: HIS220Y।
HIS323HI Rites of Passage and Daily 26L
Life in the Middle Ages
(formerly HIS323YI)
Reflecting on the life cycle and rites of passage in the medieval period gives the opportunity to study the daily lives of peasants, nobles, monks, nuns, and burghers, and to observe from an interesting angle the differences between female and male life experiences.
Prerequisite: A course in medieval history such as HIS220Y I Exclusion: HIS323YI

## HIS324YI Science, Technology, and the 52L Development of Modern Culture

Explores the impact of scientific ideas and new technologies on the development of modern culture and on notions of progress since 1800 . Topics include Romantic science, degeneration, new media, knowledge and power, and are explored through scientific and literary texts and diverse secondary sources. Recommended preparation: Background in European history or history of science strongly recommended

| HIS325HI | I8th Century Imperial Russia <br> (formerly HIS325YI) |
| :--- | :--- |

This course focuses on the history of eighteenth century Russia, tracing the development of its political institutions, social and economic structures and cultural values. Examining the reign of Peter I, the age of Empresses, and Catherine the Great, we see not only internal changes within the Russian Empire itself, but also its emergence as a European power.
Exclusion: HIS325YI
Prerequisite: HIS250Y I/permission of instructor

## HIS327HI America and the World to 1900 26L

This course examines major ideas, events, and developments in American foreign policy before 1900. Included are relations with Great Britain, independence, hemispheric issues, commercial and landed expansion, and the rise of imperialism.
Recommended preparation: HIS 27 IYI
HIS328YI Modern China since 1800 52L
An examination of political, social and economic developments
in Chinese history from 1800 to the present day. Main topics
are the decline of the Imperial order and the challenge of
Western imperialism; the Republican period; the rise of the Communist movement; the People's Republic of China.
Exclusion: JMC20IYI
Prerequisite: HIS280Y I/EASI02YI
Recommended preparation: HIS380Y I

## HIS329HI Globalization and History

This course will explore ways in which "globalization" is a profoundly significant and deeply rooted historical process. Although emphasis will be placed on the 19th and 20th centuries, some of the economic, political, cultural, and technological forces shaping the past millennium will also be considered.
Recommended Preparation: HIS I03YI

## HIS330HI Germany from Frederick the Great 26L to the First World War (formerly HIS3I7YI)

Topics include German reactions to the French Revolution, Napoleonic occupation, the Wars of Liberation, industrial expansion, the Revolutions of 1848, unification in I871, Bismarck and Kaiser Wilhelm II, everyday life, gender relations, local and regional identities, workers' culture, avant-garde culture, nationalism, anti-Semitism, colonialism, and the Great War of 1914-I8.
Prerequisite: EUR200YI/HIS24IHI
Exclusion: HIS3I7YI

## HIS33IHI Modern Baltic History <br> (formerly HIS33IYI)

The history of the Baltic countries, Estonia, Latvia and Lithuania from 1900 to the present day, with emphasis on the emergence of independent Baltic states, World War II, communist era, the Baltic Revolution, the restoration of independence and European integration.
Recommended preparation: HIS250Y I/25 IYI
Exclusion: HIS33IYI

## HIS332HI Crime and Society in England, 1500-1800 (formerly HIS332YI)

The changing nature of crime and criminal justice in earlymodern England; the emergence of modern forms of policing, trial and punishment.
Exclusion: HIS332YI
Prerequisite: Successful completion of 8 full credits, including one full HIS credit
Recommended preparation: HIS238HI
HIS333YI Revolution in 20th Century 52L Latin America
An examination of the impact of 20th-century Latin American revolutions on the lives of their participants.
Exclusion: HIS333HI
Prerequisite: GGR249HI/HIS292YI/IAS200YI/POL20IYI/ 305YI
HIS334YI I9th and 20th Century Central 52L Europe and the Great Powers
The diplomatic, economic and military activities of Russia, Germany, Austria, France, Great Britain and the U.S. vis a vis Central Europe. Russian and German expansion, partitions of Poland, disintegration of the Ottoman Empire, the Napoleonic and World Wars, political systems created in Vienna, Versailles and Yalta, the Cold War and the disintegration of the Soviet outer empire.
Prerequisite: EUR200YI/HIS25 IYI/permission of the instructor

## HIS335HI Soviet Cultural History

This course explores Russian culture - art, architecture, film and literature - from 1917 to the post-Soviet present. Readings and screenings trace the relation between culture, history, and revolution from the Russian Avant-Garde and proletarian
culture to socialist realism, and from Krushchev's thaw to examples of Soviet "postmodernism".
Prerequisite: HIS250YI
HIS336HI Medieval Spain 39L
This course emphasizes the interaction of Christians, Muslims, and Jews, and the cultural and political distinctiveness of Castile and Aragon in the development of state, society, and culture in medieval Spain.
HIS337HI Culture, Politics and Society 52L in 18th Century Britain (formerly HIS337YI)
Major themes in late seventeenth and eighteenth century British history with a thematic focus on intellectual, cultural and social developments. Topics include the English "urban renaissance", the birth of a consumer society, the Scottish Enlightenment and the early stages of the British industrialisation.
Exclusion: HIS337YI
Recommended preparation: HISI09YI, EUR200YI, HIS238HI, 239 HI
HIS338HI The Holocaust : Nazi 52L, I2T
Germany, Occupied Europe and the Destruction of European Jewry (formerly HIS338YI/398YI)
German state policy towards the Jews in the context of racist ideology, bureaucratic structures, and varying conditions in German-occupied Europe. Second Term considers responses of Jews, European populations and governments, the Allies, churches, and political movements.
Exclusion: HIS398YI/338YI
Prerequisite: Completion of six undergraduate full-course equivalents
Recommended preparation: A course in modern European history
HIS339YI English History in the 19th Century 52L
Major aspects of English history from the end of the I8th century to the death of Queen Victoria: the Industrial Revolution, the rise of parliamentary democracy, the role of social class, the development of modern cities, the emergence of the modern state, Victorian religion, the Victorian family, the role of aristocracy in an industrialized society. Recommended preparation: EUR200Y I/HIS238HI, 239HI
HIS340HI A Survey of Australian 26L History
This course introduces students to some of the principal themes in the history of Australia since well before the British occupation in I788. Topics covered include the dispossession and recent partial re-possession of land by the indigenous population, the consequences of its creation as a convict colony, the creation of the Labour Party and later political and social developments.
Prerequisite: one full-year HIS course or equivalent
HIS34IYI Enlightenment Europe, l660-I789 52L
The comparative intellectual, cultural and social history of western Europe with particular focus on France, England, Scotland and Germany. Examines the impact of Enlightenment ideas on European attitudes to race, gender, politics, economics and religion through the study of the press, the salons, voluntary bodies and consumer culture.
Recommended preparation: HISI09YI/220YI/238HI/243YI/ 244YI/245YI/EUR200YI

## HIS342HI Pre-Petrine Russia: Russia Before 1700

This course examines modern Russia's political predecessors, their contacts with Byzantium, Western Europe, and the Mongol Empire, and resulting cultural, religious, and social changes. Prerequisite: HIS250YI
HIS343YI History of Modern Espionage 52L
An introduction to the historical origins and evolution of modern intelligence services. Topics to be studied include: intelligence in wartime; technological change; intelligence failures; covert operations; counter-espionage; the future of spying. The impact of the popular culture, both in fiction and film is also examined.
Recommended preparation: HISIO3YI or an equivalent introduction to modern international relations

## HIS344YI Conflict and Co-operation in the <br> 52L

 International System Since 1945An examination of the conduct and consequences of international politics in an atomic/nuclear age when the stakes of the "Great Game" were not just the fates of states and nations, but the survival of humanity itself. The diplomatic, strategic and economic aspects of international relations will all receive appropriate elucidation.
Recommended preparation: EUR200YI/HISI03YI/24IHI,
242 HI

## HIS345HI History and Film 26L, I3P

This course is designed to further students' knowledge of films' relationship to the events they depict and their undeniable power as representational systems to render history effectively. This will necessarily entail both close examination of the formal systems film rely upon and an understanding of the distinction between fictional and non-fictional forms in film.
Prerequisite: 2 full courses in history or permission of instructor
Recommended preparation: INI2 I2Y|

## HIS347HI History of Modern Chinese Foreign Relations

The history of Chinese foreign relations from 1842 to the present day, with emphasis on the foreign relations of the People's Republic since 1949. Topics include: imperialism in China, Sino-Soviet relations; the Deng era rapprochement with the West; contemporary issues such as Hong Kong, Taiwan, regional security.
Prerequisite: EASI02YI/HIS280YI/JMC20IYI
Recommended preparation:HISI03YI
HIS348HI Topics in Gender History
An in-depth examination of issues in gender history. Content in any given year depends on instructor. See History website for more details.

## HIS349HI The British Search for Identity: 1800 to the Present (formerly HIS239HI)

An introduction to the history of modern England with emphasis on the search for identity with reference to the nation, the crown, class, gender, age, political parties, race and ethnicity.
Exclusion: HIS239HI

HIS350YI The Social History of the Family 52L
How childrearing has altered across the ages, whether the couple is held together by "romance" or "property", and how the family is connected to the outside community. Changes in the size of families, in the composition of the household, and in the roles of women as mothers and wives. Material is included from both North America and Europe, and ranges from the 17th century to the present.

## HIS35IYI History of Twentieth- 52L Century Russia

A survey of the history of Twentieth-Century Russia. The social, economic, and political development of Twentieth-Century
Russia, with an emphasis on the Russian Revolution and
Stalinism. Stress is placed on modern historiographical issues. Recommended preparation: HIS250YI/POL204YI

HIS352HI Secularism and Strife: Modern Jewish Politics and Culture
A survey of Jewish political life from c. 1880 to 1948 , with emphasis on Zionism and origins of the state of Israel.
Exclusion: HIS356YI
Recommended Preparation: one course in European, Middle Eastern or Jewish history
HIS353YI Poland:A Crossroads of Europe 52L
Social and political history of Poland from the 10th to the 20th century. Analysis of the political history in a broader, central
European context; consequences of Christianization of medieval
Poland and the Polish-Lithuanian union; Sarmatian culture,
Antemurale, Polish Messianism and Cordon sanitaire.
Prerequisite: HIS25IYI/permission of the instructor
HIS354YI Men, Gender and Power in 52L
Europe from the Renaissance to the French Revolution
(formerly HIS399HI, 399YI)
An investigation of how ideas of masculinity and gender roles
shaped the exercise of private and public power in early modern Europe.
Exclusion: HIS399HI, 399YI
HIS355HI Crime and Society in England 26L

## Since 1800

Crime and criminal justice in England in the industrial age; the relationship of crime, society, and economy.
Prerequisite: Successful completion of 8 full credits, including one full HIS credit
Recommended preparation: HIS 332 HI and a 200 -series HIS course
HIS356HI Zionism and Israel 26L (formerly HIS356YI)
Origins of Jewish nationalism in 19th-century Europe; creation of the Zionist political movement; varieties of Zionist ideology; Zionist diplomatic and state-building activity; conflict with the Palestinian Arabs; the establishment of the state and its development since 1948.
Exclusion: HIS356YI
Recommended preparation:A course in modern European, Jewish or Middle Eastern history

## HIS357YI A Social History of <br> Renaissance Europe <br> (formerly HIS357HI)

A social history of the 15th and 16th centuries set against the cultural and political background. Emphasis on changes in customs and living conditions resulting from economic, legal, intellectual, and religious developments of the period.
Recommended preparation: A course in Renaissance or Early Modern European history
Exclusion: HIS357HI

## HIS359HI Regional Politics and Radical Movements in the 20th Century <br> Caribbean

The role of nationalism, race and ethnicity, class conflict and ideologies in the recent development of Caribbean societies; Europe's replacement by the United States as the dominant imperial power in the Caribbean; how this mixture of regional and international pressures has led to widely differing political systems and traditions.
Recommended preparation: HIS294YI

## HIS360YI African Canadian History, 52L

## 1606-Present

This course traces the earliest known arrival of people of African descent in Canada from the early seventeenth century to the time of their more recent postwar immigration trends. Using socio-historical and multidisciplinary approaches, setttlement, community and institutional building and survival will be examined within the framework of other Canadian historical developments.
Recommended preparation: HIS263YI
HIS362HI The Hansa:The World of Merchants 26L The history of the Hanseatic League in medieval Europe from the late 12th to the late 16th century, with emphasis on the organization of the German Hansa, maritime activities, Hanseatic trade, and daily life of the Hanseatic merchants in Western and Eastern Europe
Prerequisite: HIS22OYI or permission of instructor

## HIS363HI Dynamics of Gender in

## Canadian History

A lecture course which deals thematically with gender issues in Canadian history (including familial roles, changing patterns of work and employment, and participation in the public sphere). Prerequisite: HIS262YI/263YI

## HIS364HI Studies in the History of Modern India

Selected topics in the history of modern India: the cultural, political and economic impact of the British Raj; nationalism, communalism, regional differentiation; social structure and change, cultural values and problems of identity; party structure and political change.
Recommended preparation: HIS282YI
Prerequisite: HIS262YI/263YI
HIS365HI History of the Great Lakes Region 26L A survey of the Great Lakes Region as a "trans-national space" from fur trade to free trade. Attention is given to the political, social, economic, environmental, and cultural histories that affected the development of the region.
Prerequisite: HIS263YI/27IYI

HIS366YI Black Canadian Women's History 52L
This course examines, by highlighting select themes and topics, African Canadian women's history. Such themes and topics include culture, sexuality, slavery, migration, Black women's activism, the rise of a female voice through writing and publishing, spirituality, community building, nation building, identity, and employment strategies. I take the position that Black Canadian women's history is informed by the historical processes of the African Diaspora, and African American history. Recommended preparation: HIS $263 \mathrm{YI} / 360$ YI or some
background in Women's Studies
HIS367HI History of Images 26L, I3P
The apparatus, the character, and the significance of an
increasing volume of images, in particular of the body, since 1800 in Europe and North America. Introduction to concerns of cultural history: power and knowledge; self and identity; gender and sexuality; class, age, and race; and the pursuit of pleasure.
Recommended preparation:A course in modern European or American history
HIS368HI British Government and 26L Society, 1485-1660
(formerly HIS238HI)
An introduction to the history of early modern England with reference to politics, religion and social structure.
Exclusion: HIS238HI

## HIS369YI Aboriginal Peoples of the 52L Great Lakes from 1500 (formerly HIS369HI)

Algonkian and Iroquoian history from the eve of European contact to the present in the Great Lakes region of today's Canada and the United States. Algonkian and Iroquoian societies in the 16th century, change over time, material culture, and inter-cultural relations among natives and between natives and

## Euroamericans.

Exclusion: HIS369HI
Recommended preparation: HISI06YI/262YI/263YI/27IYI
HIS370HI The Black Experience in the 26L United States Since the Civil War
A survey of the economic, social, political, and cultural history of black America from Reconstruction until recent times. Among the central issues dealt with are: segregation and disfranchisement; the Great Migration; the rise of the ghetto; the Civil Rights Movement; emergence of an "underclass." Prerequisite: HIS27IYI

HIS37IHI 19th Century Imperial Russia 26L (formerly HIS325YI)
This course focuses on the political, social, intellectual and cultural history of nineteenth and early twentieth century Russia. Major topics include the rise of a Russian intelligentsia, reform and counter-reform, the nationality question, modernization, the woman question, and revolutionary movements.
Prerequisite: HIS250YI or permission of the instructor Exclusion: HIS325HI/YI

HIS374HI American Consumerism - The 26L Beginnings
This course looks at the early origins of American consumerism. It begins with 17th-century England and the economic imperatives within the Atlantic World, then traces the changing
attitudes of I8th-century Americans towards consumer goods, fashion and style that led to the mass consumption of the 19th century.
Prerequisite: HIS27IYI
Recommended preparation: At least 6 courses completed

HIS375HI \begin{tabular}{l}

| History of 20th Century American |
| :---: |
| Popular Culture |
| (formerly HIS375YI) | <br>

An examination of popular culture and its relationship to
\end{tabular}

society during the first eighty years of the 20th century. By
examining popular music, literature, radio, movies, sports,
television, and other leisure activities, the course analyzes the
manner by which groups such as blacks, ethnics, young people,
and women used new means of communication to create a new
popular culture in America.
Prerequisite: HIS27IYI
Exclusion: HIS375YI

HIS376HI The United States: Now - and Then 26L
An exploration of some of the historical roots of issues that are of particular importance to understanding the United States of the early 21 st century: e.g., the war in Iraq and U.S. global leadership (or hegemony); the impact of globalization on the domestic economy; cultural innovation vs. neo-conservatism. Prerequisite: HIS 27 IYI

## HIS377YI 20th-Century American 52L Foreign Relations

A survey of the history of American foreign relations from 1898 to the present. Themes include imperial expansion and the uses of power; the relationship of business and government in U.S.
foreign policy; and the role of culture and ideas in America's
relations with the world.
Prerequisite: HIS27IYI/372YI/POL208YI
HIS378HI America in the 1960s 26L
A survey of one of the most turbulent decades in American history. Examines the political, social, economic and cultural revolutions that transformed the face of America.
Prerequisite: HIS27IYI
HIS379HI Revolutionary America 1760-I790 26L
Examines the social, cultural, political and economic features of the American colonies and analyses the forces leading to Revolution and Independence. The impact of the Revolution on domestic and public life of both men and women, and on African-American and aboriginal peoples are explored. Prerequisite: HIS238HI/27IYI

| HIS380HI | Late Imperial China <br> (formerly HIS380YI) |
| :--- | :--- |
| 26L, 6T |  |

The political, social, and economic history of China from the period of political and economic reorganization in the Song dynasty to the final glory of the imperial order down to the end of the 18th century and its decay in the 19th.
Prerequisite: EASI02Y/HIS280YI/JMC20IYI

## Exclusion: HIS380YI

HIS383HI African Women from Colonial 26L Conquest to the Era of Structural Adjustment
(formerly HIS383YI)
Major themes in the history of African women. Themes include: sources and methodologies of studying African women, cultural construction of gender, changing modes of production, women and state formation, ideology and social control, education, law,
race, class and gender, female resistance to colonial rule and African womanisms versus Western feminisms.
Exclusion: HIS383YI
Prerequisite: HIS295YI
HIS384HI Colonial Canada: the East 26L
Early Canadian history (ca. I500-I800), emphasizing
colonization, Native peoples of Ontario, Quebec and the
Maritimes; establishment of French and British colonies;
interaction of natives and European colonizers.
Exclusion: HIS362YI
Prerequisite: HISI06YI/262YI/263YI or permission of the instructor
HIS385HI/YI The History of Hong Kong 26L/52L
A study of political, economic, and social change in the British
colony of Hong Kong from 1842 until the present day.
Exclusion: Students cannot take both the Y and H version of HIS385
Recommended preparation: HIS280YI/232YI/JMC20IYI
HIS386HI Muslims in India and Pakistan 26L (formerly HIS386YI)
Social and political history of Muslims of South Asia since
A.D. 712. The growth of Muslim community, conversion, social stratification, and social structure; mediaeval Muslim legacy in administration, art, literature, and religion. Muslim identity, nationalism, and "Islamic modernism" as reflected in the writings of intellectuals such as Sayyid Ahmad Khan, Iqbal, Jinnah, Abul-
Kalam Azad, Mawdudi, and Parwiz.
Recommended preparation: HISIOIYI/282Y I
Exclusion: HIS386YI

## HIS387HI France, 1610-1848

(formerly HIS388YI)
This course considers the history of France, from the rise of absolutist monarchy under the seventeenth-century, Bourbon monarchs, through the Enlightenment, the Revolution and Napoleonic Empire, and the Restoration, to the fall of the constitutional monarchy in 1848.
Exclusion: HIS388YI
Prerequisite: one HIS/FRE course
HIS388HI France Since I848 26L (formerly HIS388YI)
A study of French society, politics and culture from the Paris Commune to the 1990's. Special attention is paid to watersheds like the Dreyfus Affair and the Vichy regime, to issues of regionalism/nationalism, cultural pluralism, women's rights, intellectual and cultural trends, and decolonization.
Exclusion: HIS388Y I
Prerequisite: EUR200YI/one course in HIS/FRE

## HIS389HI Topics in History 26L

In-depth examination of historical issues. Content in any given year depends on instructor. See Undergraduate Handbook or History website for more details.
Prerequisite:Varies from year to year; consult department

HIS390YI | Latin American in the Age 52L |
| :--- |
| of Revolution |

This course examines how Latin America and Latin Americans responded to the American, French, Haitian, Latin American, and industrial revolutions of the late eighteenth and early nineteenth centuries.
Prerequisite: 2 HIS courses
Recommended preparation: HIS 291YI/294YI/IAS 200YI/GGR 240YI

HIS393HI Slavery and the American South 26L An examination of the role of slavery in the development of the American South from the early colonial period through the Civil War. Topics include: the origins of slavery, the emergence of a plantation economy, the rise of a slaveholding elite, the structure of the slave community, and the origins of the war. Prerequisite: HIS27IYI

## HIS394HI South Asian Migration and Settlement

The history of South Asian migration with particular emphasis on 20th-century immigration to North America and the establishment of South Asian Diaspora Society in Canada: push and pull factors, transnationality, culture transfer, sojourning and settling, race, class gender issues, adaptation and defence of tradition.
Recommended preparation: A course in Indian history

## HIS395YI Topics in History

An in-depth examination of historical issues. Content in any given year depends on instructor. See Undergraduate Handbook.
Prerequisite:Varies from year to year; consult department
HIS396HI The History of Sub-Saharan
Africa From Abolition of the
Trans-Atlantic Slave Trade to
the Era of Imperialism
(formerly HIS396YI)
The course examines the major economic and political transitions that have occured in Africa form the abolition of the trans-Atlantic slave trade to the era of imperialism. The interaction between the internal dynamics of African history and external forces is examined and different regions of Africa compared.
Prerequisite: NEWI50YI/HIS295HI
Exclusion: HIS396YI
HIS398H0/ Independent Experiential Study Project 399Y0
An instructor-supervised group project in an off-campus setting. See page 47 for details.

## 400-Series Courses

HIS400YI York University Exchange Seminar TBA For details, consult the Department of History.

## HIS40IYI History of the Cold War 52S

This course covers international relations from World War II to the collapse of the Soviet Union. Topics include the breakdown of the wartime alliance, Soviet predominance in eastern Europe, the Western response, NATO, atomic weaponry.
Prerequisite: HIS3 I IYI/344YI/377Y I

## HIS 402HI Indigenous Colonial Cultures in 26 S

the Spanish and Portuguese Americas
Explores the changing worlds of native peoples in Latin America from the pre-Columbian period through to the late eighteenth century. Discussions focus upon the ways in which complex Indian cultures transformed and were forged in the colonial Spanish and Portuguese Americas through the interactions of Amerindians with others.
Recommended preparation: HIS I06YI/291YI/294YI

HIS403YI

## Jews and Christians in Medieval and Renaissance Europe (formerly HIS403HI)

The course focuses on aspects of Jewish-Christian relations ca.300-1600, such as royal and ecclesiastical Jewish policies; religious polemics; intellectual collaboration; social and economic interaction; anti-Judaism and religious violence. (Joint undergraduate-graduate)
Exclusion: HIS403HI
Recommended preparation: HIS206YI/220YI/243HI/322YI/ 357YI

## HIS404HI Topics in North American

 Environmental HistoryThis seminar interdisciplinary and studies past environmental change in North America. Topics include: theory and historiography; the pre-European environment; contact; resource development; settlement, industrial urban environments; ideas about nature in religion, literature and North American culture; conservation and the modern environmental movement. (Joint undergraduate-graduate)
Exclusion: HIS3I8YI
Prerequisite: 8 full courses

## HIS405YI Canadian Foreign Relations 52 S

A course on Canadian external relations since 1945. Topics include Canada and the Cold War, the Korean War, the Suez crisis and the war in Vietnam, membership in international organizations, and bilateral relations with other countries. (Joint undergraduate-graduate)
Prerequisite: HIS3IIYI/POL3I2YI
HIS406HI Advanced Topics in Gender History 26S
An in-depth examination of issues in gender history. Content in any given year depends on instructor. See History website for more details.

HIS407HI Imperial Germany, I87I-1918 26S
(formerly HIS407YI)
Historiographical controversies and the latest empirical
findings concerning social conflict and political mobilization under Bismarck and Wilhelm II. Problems raised by competing schools of interpretation include definitions of the authoritarian state, bourgeois hegemony, localism and regionalism, radical nationalism, workers' culture, and gender relations. (Joint undergraduate-graduate)
Exclusion: HIS407YI
Prerequisite: HIS3I7YI or permission of the instructor
HIS408YI History of Race Relations in 52S America
Relations between blacks and whites in the United States from the colonial period to recent times with emphasis on slavery. Prerequisite: HIS27IYI
HIS409HI One Day in Vietnamese Religious 26S History: the Meeting of the Four Religions
This course examines the religious traditions of Viet Nam through a meeting between the ruling Trinh Lord in Northern Viet Nam and a Buddhist monk, a Taoist Priest, a Confucian scholar, and a Catholic Missionary. Students will read the English translation of the meeting along with scholarly readings and primary documents.
Prerequisite: HIS283Y।

## HIS4IOHI <br> Spectacle, Crowds, and Parades

 in CanadaSocial and cultural approaches to understanding spectacles, crowd behaviour, and parades in the Canadian past, I660s 1980s.
Prerequisite: HIS262YI/263YI/367HI
HIS4IIHI Great Trials in History 26S
This seminar course will study a handful of great trials - still to be selected - in close detail. Using materials from the modern period in Europe and North America, we will look at the clash of ideas represented in these high-profile cases, the historical setting in which they were embedded, the human drama, legal and sometimes constitutional issues, and their impact both on their societies and our own.

## HIS4I2YI Crusades, Conversions and 52 S Colonialization in the Medieval Baltic (formerly HIS4I2HI)

Explores the impact of crusades, religious conversion and colonialization on medieval Baltic history through analysis of two medieval chronicles in English translation. Topics include 'culture clash', medieval colonialism, Europeanization as well as German expansion eastwards, the role of the Teutonic Knights and the strategies of survival of the native Baltic people after conquest and Christianization.
Exclusion: HIS4I2HI
Recommended preparation: HIS250YI/353YI/permission of instructor

## HIS4I4HI The Third Reich 26S <br> (formerly HIS4I4YI)

An integration of current historiographical approaches to the Third Reich with a close reading of primary documents in English. The focus is on the Nazi regime as something less than a totalitarian state. Attention is given to non-conformity and other features of "everyday life" under the Nazis.

## Exclusion: HIS4I4YI

Prerequisite: HIS3I7YI/338YI or permission of instructor

## HIS4I5HI Nationalism \& Memory in Modern Europe

Investigates the modern concept of the nation and its connections to the idea of collective memory in twentiethcentury Europe. Through reading and discussing seminal works on nationalism and national memory, we will discuss the connections between modern notions of nation and practices of remembering.
Prerequisite: two European history courses
HIS4I6HI Orientalism and Nationalism in 26S Nineteenth-Century Germany
In I77I, with the translation of the Zend-Avesta by the French Scholar Anquetil-Duperron, a new era opened in German national culture. From the philosophy of Johann Gottfried von Herder to the novels of Thomas Mann, this course analyzes the ways in which German writers defined the substance and place of national culture in their writings about India, Central Asia and the "East."
Prerequisite: HIS24IHI, $242 \mathrm{HI} / 3 \mathrm{I} 7 \mathrm{HI} / \mathrm{Y} I$
HIS4I7HI Globalization, Science, and Technology
A critical investigation of the idea of globalization through the comparison of the late imperial period (ca. 1850-1900) and our own era. Evaluates theories of globalization mostly by analyzing the role of scientific and technological developments in the
production of global networks of various kinds (eg., capital, people, information).
Recommended preparation: Background in history of science, history of modern empires, and/or comparative history desirable

HIS4I8HI

## Women and Gender in

## Russian History

(formerly HIS4I8YI)
Focus is on the history of women and systems of gender in Russia and the Soviet Union. Themes include gender and authority during the age of empresses; pre-revolutionary radical movements; the impact 1917 Revolution and its impact on women's lives; the resurrection of conservative gender conventions during Stalin's regime; the experience of women during perestroika.
Prerequisite: $\mathrm{HIS} 250 \mathrm{Y} / / 35 \mathrm{IYI} / 325 \mathrm{HI} / \mathrm{Y} \mathrm{I}$
Exclusion: HIS 4I8YI

| HIS4I9HI | Canadian Popular Culture, <br>  <br>  <br>  880 to the Present |
| :--- | :--- |

## 1880 to the Present

(formerly HIS4I9YI)
The evolution of the tastes, patterns of consumption, and leisure products which together defined the affluent lifestyle that matured in the postwar era. Attention to the effects of technology; gender stereotypes; how people used the mass media; the genres of advertising, mass entertainment, and sports; fads, fashions, and heroes. Focus on the period after 1945. Prerequisite: A mark of $75 \%$ or higher in HIS262YI/263YI Exclusion: HIS4I9YI

## HIS420HI Democracy, Industry, \& Public 26S <br> Culture in Twentieth-Century Germany

This course explores modernist architecture, theatre, film and photography in Germany from the turn of the twentieth century to the 1950s, looking at how the new cultural forms created during the Weimar Republic were used and transformed during the National Socialist period. Topics include industrial culture, the relationship between art and technology, mass culture and spectacle, and ideas of national and racial community.
Prerequisite: HIS $3 \mathrm{I} 7 \mathrm{HI} / 3 \mathrm{I} 7 \mathrm{YI} / 242 \mathrm{HI}$
HIS42IYI Soviet History Seminar
(formerly HIS42IHI)
A seminar on the history of Soviet Russia in its formative years, 1917 to 1939. The revolutions of 1917, the civil war and war communism, NEP Russia, the Stalin revolution, the purges, and the "great retreat" are explored. Emphasis is on issues, interpretations and historiography, problems of study, and periodization. (Joint undergraduate-graduate)
Exclusion: HIS42IHI
Prerequisite: HIS35IYI (with a mark of at least 80\%)
HIS422HI Vichy France, I940-1944 26S
This course examines the rise, fall, workings and legacies of a xenophobic, collaborationist regime that came to power in France in 1940. It pays special attention to everyday practices under Vichy, to individual choices, to ideological battles, and to trauma. Other major themes include anti-Semitism, issues of memory and amnesia, and socio-cultural shifts.
Recommended preparation: HIS242HI

## HIS423HI Social History of Medicine in the 19th\& 20th Centuries (formerly HIS423YI)

Introduces students to some of the main issues in the new field of the social history of medicine. Readings from the secondary historical literature are distributed and discussed in class, covering such topics as the history of the doctorpatient relationship, changes in physicians' social status, changing attitudes towards the body, and the history of obstetrics and gynaecology. (Joint undergraduate-graduate)
Exclusion: HIS423YI
Prerequisite: A minimum of one course in HIS/PSY/SOC

## HIS424HI Violence in Medieval Society (formerly HIS424YI)

This seminar explores the social function and meaning of violence in medieval society, and the development of rituals and institutions to control violence.Among the topics treated: Germanic blood feud, aristocratic violence and chivalry, criminal justice systems, violence against minorities, and violence and gender. (Joint undergraduate-graduate)
Prerequisite: HIS220YI/304YI/320YI/322YI
Exclusion: HIS424YI

## HIS425HI Historiography 26S

A look at some basic problems of historical study, approached by means of an analysis of the work of a number of historians and philosophers of history, representing different schools of thought and time periods from ancient times to the present.
Recommended preparation:Three HIS courses

## HIS427HI History and Historiography in the Golden Legend

The "Golden Legend" or Readings on the Saints, compiled by Jacobus de Voragine C. I260, serves as the basis for a seminar on the relation of history and legend as understood in the High Middle Ages. (Joint undergraduate-graduate)
Prerequisite: HIS220YI
HIS428HI Institutes of Perfection
The first goal of this seminar is to help students read the sources with a more critical eye, especially narrative sources (Lives of Saints) and normative sources (rules and customaries). The second goal is to study the evolution of the monastic ideal from its origin to the 12 th century. (Joint undergraduategraduate)
Prerequisite: A course in Medieval history such as HIS220Y।

## HIS429YI Fascism 52 S

Examines the historiography, theories and trappings of fascist movements and regimes. Special attention is afforded to a number of case studies. Regional focuses include: Germany, France, Italy and Eastern Europe. The course deciphers the political, cultural and social dimensions of fascism through definitions and origins of fascism; fascism and xenophobia; fascism and gender; fascism and empire; and fascist aesthetics and literature.
Prerequisite: HIS242HI or permission of the instructor
HIS430HI Canadians and the World Wars 26S
Topics in the political, social, cultural, and military history of Canadians during the First and Second World Wars. Emphasis on the home front.
Prerequisite: HIS263YI
HIS432HI Topics in Medieval History 26S
The students define together with the professor eight different topics (e.g. relics, masculinity, leprosy, clothes, recluses, peasants'
houses, gynecology and the peace of God). Each topic is approached through a class discussion, on the basis of a common corpus of secondary sources, plus presentations by the students.
Prerequisite: A course in Medieval history such as HIS220YI

## HIS433HI Polish Jews Since the Partition 26S

 of PolandTo explore the history of Polish Jews from the Partitions of Poland to the present time, concentrating on the 19th and the first half of the 20th centuries: situation of Polish Jews in Galicia; Congress Kingdom of Poland; Prussian-occupied Poland before 1914; during World War II; and post-war Poland. Focus on an analysis of primary sources. (Joint undergraduate-graduate) Prerequisite: HIS208YI/25IYI/permission of the instructor

## HIS434YI Kievan Rus' $52 S$

The origin of Rus', international trade, the impact of nomadic peoples, the introduction of Christianity, the economic system an the problem of feudalism, the political structure and the dilemma of princely succession; literature and architecture; the displacement of political power centres and depopulation, the preservation of the Kievan heritage. (Joint undergraduategraduate)
Prerequisite: One of the following: HIS220YI/250YI/
320YI/322YI/JHP204YI

## HIS435HI Change and Continuity in

This course focuses on the causes, character and consequences of the British Civil Wars (1638-60) and on the different ways historians have treated these questions over the past 150 years. Students will think about how religious issues influenced political events before, during and after the Civil Wars and on how they were influenced by contemporaneous economic and social change.
Prerequisite: four full HIS courses, including HIS $238 \mathrm{H} / 348 \mathrm{H}$

## JHP435YI Linguistic and Cultural 52S Minorities in Europe

Examines status of minority peoples in Europe, using specific case studies to compare similarities and differences in how these minorities function in states with differing political systems and ideologies. The evolution of specific minorities focuses on questions of language, religion, historical ideology, legal status, assimilation, and political goals. (Given by the Departments of Political Science and History) Prerequisite: POL I03YI/3I2YI/a course in European history

## HIS436HI Culture and the Cold War

 (formerly HIS436YI)The impact of the Cold War on life in the West through a study of selected popular culture themes and modes of production that helped shape the era. Four themes include "Living with the Bomb," "Living with the National Security State," "Living with Spies," and "Women Living with the Cold War."
Exclusion: HIS436YI

## HIS437HI A History of the Black 26S

 Autobiographical Tradition in CanadaThis course explores the history of the Black autobiographical tradition from the eighteenth century to the late twentieth century. It focuses on three slave narratives and two memoirs. Black autobiographies illustrate some of the following themes: slavery and freedom, exodus and migration, war and revolution, family and identity, alienation and neglect, racism and discrimination, the quest for literacy and education, writing as
a critical terrain of Black struggle, the political import of Black writing, human rights activism, and feminist justice.
Prerequisite: HIS $263 \mathrm{YI} / 360 \mathrm{YI} / 366 \mathrm{YI}$ or some other background in women's history, Black history or the
literature thereof
HIS438HI Inquisition and Society in 26S Medieval and Early Modern Europe
Focusing on the institution of the inquisition, this seminar explores the response of ecclesiastical and secular authorities to religious heterodoxy. Among the groups prosecuted by the inquisition discussed: Cathar heretics in France, crypto-Jews, and crypto-Muslims in Spain, and witches in Italy.
Recommended preparation: HIS220YI

## HIS439HI Russia's Empire

This course examines ways in which the Russian Empire and Soviet Union expanded their territories, the ways they controlled those colonies, and the ways in which they dealt with rising nationalism both at home and abroad.
Prerequisite: HIS250YI
JHP440YI Gender \& International

## Relations

(formerly HIS 440HI)
The seminar explores the use of gender as a category of analysis in the study of international relations. Topics include gendered imagery and language in foreign policymaking; beliefs about women's relationship to war and peace; issues of gender, sexuality, and the military; and contributions of feminist theory to international relations theory.
Prerequisite: $\mathrm{HISI} 03 \mathrm{YI} / 245 \mathrm{YI} / 377 \mathrm{Y}$ I/POL208YI or permission of instructor
Exclusion: HIS 440HI
HIS44IHI Conversion \& Christianities in the 26S Early Modern Spanish World
Investigates religious conversion and cultural change in the Spanish world ca. 1450-I750. Principal settings include the late medieval Spanish kingdoms, Mexico, Peru, Paraguay, and the Philippines archipelago. Fall 2007 is special: our seminar readings and assignments will take best advantage of "The Virgin, Saints and Angels", an exhibition of baroque paintings from Spanish South America in the UofT Art Centre.
Recommended Preparation: HISIO6YI or HIS29IYI may be useful
HIS442YI Power and Powerlessness in $52 S$

## Jewish History

Analyzes the religious, social and psychological roots of antisemitism and traces its development in Europe from the Middle Ages through the early twentieth century. The course compares and contrasts antisemitism and other forms of prejudice and examines Jewish-Gentile relations in terms of minority-majority relations throughout the continent.
Prerequisite:Two courses in European history
Recommended preparation: A course in Judaism or Jewish history
HIS443HI Society, Culture and Religion 26S
in the Renaissance and Reformation (formerly HIS443YI)
Developments in popular/lay/local religion as expressed in a variety of cultural, political, and social forms from 1400-1600; the relation of these forms to both Catholic and Protestant institutional churches. Impact of Renaissance humanism on notions of kinship, order, community, perfection.

Exclusion: HIS443YI
Recommended preparation: HIS340YI/357YI or permission of instructor
HIS 444HI Topics in Jewish History: Jewish 26S Identity in the Modern World
Explores the construction of Jewish identity in Europe from the late 18th through mid 20th centuries. Political emancipation and unprecedented economic opportunity stimulated many Jews to adopt the cultures of their host societies while refashioning Jewishness as a form of religious or ethnic community. Others constructed identities based on a defensive Orthodoxy or revolutionary ethos. Zionism grew out of and responded to all of these options and will receive particular focus in this course. Prerequisite: Two of the following: HIS208YI/24IHI/242HI/
$244 \mathrm{HI} / 250 \mathrm{YI} / 25 \mathrm{IYI} / 3 \mathrm{I} 7 \mathrm{YI} / 338 \mathrm{YI} / 34 \mathrm{IHI} / 353 \mathrm{YI} / 356 \mathrm{HI} /$
388 HI or permission of instructor
Recommended Preparation: A course in Jewish history.
HIS445H Nationalism 26S
What is a nation? Are nations ancient or modern, unchanging or malleable? Do nations create states, or does the state create the nation? This course seeks to answer these questions through an examination of nationalism, primarily in Europe, from the 1700's through the present.
Prerequisite:Two courses in European history or permission of instructor
HIS446YI Gender and Slavery in the 52 S Atlantic World
(formerly HIS446HI)
The course examines the relationship between gender and the experience of slavery and emancipating several Atlantic world societies from the 17th-19th centuries. Areas to be covered are the Caribbean, Brazil, the U.S. South, West and South Africa and Western Europe.
Exclusion: HIS446HI
Prerequisite: HIS245YI/29IYI/294YI/295YI

## HIS 448HI

Gender in East and

This course explores the history of gender in East and
Southeast Asia from a comparative perspective. It will examine how models of Southeast Asian women have been constructed against their East Asian counterparts.
Prerequisite: HIS283YI
Exclusion: HIS39IHI
HIS449YI Ukrainian National Revival $52 S$
The role of the intelligentsia in East European national revivals; the ethnographic and literary revival; the language question; the press and cultural organizations; education; religion; and political movements. (Joint undergraduate-graduate)
Recommended preparation: One of the following: JHP 204Y I/
HIS $24 \mathrm{IHI} / 25 \mathrm{IYI} / 445 \mathrm{HI}$
HIS45IHI World War II in East 26S Central Europe
The fall of the Versailles system, German and Soviet diplomatic and military activities and their occupational policies in East Central Europe during World War II, economic exploitation, collaboration, resistance, and genocide in the discussed region, its "liberation" and sovietization in 1944-I945. (Joint undergraduate-graduate) Prerequisite: EUR200YI/HIS25IYI/334YI

## HIS452HI Science and Society in Eighteenth Century Europe

Comparative analysis of British and French scientific culture during the age of the Enlightenment and the French Revolution. Addresses science as a culturally constructed system of knowledge rather than a body of absolute truth. Particular attention is therefore paid to similarities and differences between "elite" and "popular" science, as manifested in the periodical press, literary texts and consumer culture. Major course themes include gender, race, imperialism and governance. Prerequisite: HIS $244 \mathrm{HI} / 337 \mathrm{HI} / 324 \mathrm{HI} / 324 \mathrm{YI} / 34 \mathrm{IYI}$

## HIS453HI Problems of National Survival in Eastern Europe Since 1848

How the peoples of Eastern Europe tried to organize their domestic affairs, and in what international context they sought to operate, in order to survive as national entities and later to preserve their newly-won independence and territorial integrity. (Joint undergraduate-graduate)
Prerequisite: HIS25 IYI/334YI or equivalent

## JHP454YI Twentieth Century Ukraine

World War I and the Russian Revolution: the Ukrainian independence movement; the Soviet Ukraine and west Ukrainian lands during the interwar period; World War II and the German occupation; the Soviet Ukraine before and after the death of Stalin. Socio-economic, cultural, and political developments. (Given by the Departments of History and Political Science) (Joint undergraduate-graduate)
Prerequisite: A course in modern European, East European or Russian history or politics such as JHP204Y I/HIS250YI/ 35IYI/353YI

## HIS454HI Topics in Russian and

 Soviet Social HistoryThis course uses the ideas of "city" and "citizenship" as a lens for examining the social and economic development of Russia in the late imperial and early Soviet eras. In the Russian empire the rural population was the main source of urban growth throughout modern history. The interaction between city and countryside will be one of the main themes of the course. (Joint undergraduate-graduate)
Prerequisite: A course in Russian history such as HIS 250Y।
HIS455HI In the Soviet Archives:Text and History
A tour of Soviet history through recently declassified archival documents (in English translation), first-hand accounts, memoirs, and literature. The primary chronological emphasis of the course will be on the years of Stalin. The focus of the course will be on close textual analysis and a critical reading of the sources. (Joint undergraduate-graduate.)
Prerequisite: HIS35 IYI with a grade of 80 or higher.

## HIS456YI Black Slavery in Latin America 52 S

An examination of black slavery in Latin America, with emphasis on the lives of the slaves, from the conquest of America to abolition in the 19th century.
Prerequisite: HIS29IYI/292YI/294YI/295YI/394YI/408YI/ IAS200YI/ 320HI

HIS457HI The French Revolution and 26S the Napoleonic Empire
Explores the central themes in the history of France during the Revolution and the First Empire. We will consider the period's principal political, social and cultural aspects: the causes of the French Revolution; the shift from constitutional
monarchy to Republic; the relationship between politics and religion; the invention of a new republican political culture; counterrevolution and Terror; the Directory; Bonaparte's rise to power; the Napoleonic Empire; the nature of war during the Empire; the Restoration; and the Revolution's legacy in France and beyond today.
Prerequisite: $\mathrm{HIS} 243 \mathrm{HI} / 244 \mathrm{HI} / 3 \mathrm{I} 9 \mathrm{HI} / 34 \mathrm{IYI} / 388 \mathrm{HI} / 492 \mathrm{YI}$

## HIS458YI Topics in Russian and Soviet

 Foreign PolicyTsarist and Soviet foreign relations from the Crimean War to the present with emphasis on continuity and change. The seminar examines major themes in Russian and Soviet foreign policy behaviour on the basis of assigned readings.
Prerequisite: HIS250Y I/334YI/344YI
HIS459HI Soviet History and Film, I92I-I946 26S
The history of Soviet cinema and the importance of film as a historical source. Documentary and fiction film; editing, narration, and sound; film distribution and exhibition; the Soviet school of montage and socialist realism; nationality and gender; the Soviet musical comedy of the Stalin era; resistance and dissidence.
Prerequisite: INII I5YI/HIS250YI
Exclusion: HIS450YI/SLA233HI/234HI
HIS460HI Soviet History and Film, I94I-I99I 26S
Soviet film as a historical source and the institutional and ideological history of Soviet film production, distribution, and exhibition. Fiction and documentary film during World War II; the cinema of the Cold War and the "Thaw"; Soviet "new realism" and the return of the village; avant-garde cinema of the 1960s-80s; memory and historical revision in late Soviet film. Screenings include never-before-seen archival footage, as well as films and film clips subtitled by the instructor.
Prerequisite: INIII5YI/HIS250YI

## Exclusion: HIS450YI/SLA233HI/SLA234HI

HIS46IHI Poland in the 20th Century 26S
The 20th century has been an age of experiments for Poland.
Universal, general problems of democracy, authoritarianism, totalitarianism, communism, socialism, free market and centrally planned economies, are examined, as are the ongoing adjustments made by the Polish people. (Joint undergraduategraduate)
Prerequisite: HIS334YI/353YI/permission of the instructor
HIS466HI Topics in Canadian History 26S (formerly HIS466YI)
Selected topics in a specific period of Canadian history.
Content in any given year depends on instructor. Please see
Departmental Handbook for complete description.
Prerequisite: HIS262YI/263YI

## HIS467HI French Colonial Indochina: History, Cultures, Texts, Film (formerly HIS467YI)

Examines French colonial Indochina through several different lenses. Themes include the cross-cultural "contact zones" between colonial and colonized societies, gender perceptions, imperial culture, expressions of colonial power, and forms of opposition. Colonial novels, translated resistance literature, documentaries, and films are utilized as primary sources to be examined critically.
Prerequisite: ANT344YI/EAS 204YI/GGR342HI/HISI04YI/ I07YI/ 280YI/282YI/283Y/3I5HI/388YI/NEW369YI
Exclusion: HIS467YI

## HIS468HI Atlantic Canada

The emphasis in this course is on Native peoples, settlement issues and settler society; economic development; women; reform movements; other distinctive aspects of the history of the Maritime region and Newfoundland. (Joint undergraduategraduate)
Prerequisite: HIS262YI/263YI

## HIS469HI Religion, Culture and

Society in Canada
This course examines the interaction between religion and culture in Canada from colonial times to the present with emphasis on primary documents. (Joint undergraduate-graduate) Recommended preparation: A course in Canadian history

HIS470HI $\quad$| History, Rights, and Difference |
| :--- |
| in South Asia |

Addressing South Asian history after 1750, this course
examines ideas of rights, contract, and the rule of law in
colonial and postcolonial contexts. Attention is paid to the
intellectual history of rights and the central place of colonial
and postcolonial questions within that history. Topics include
rights and questions concerning indigenous culture, caste and
customary practice, gender and capitalist development.
Prerequisite: A mark of 73\% or higher in HIS 282YI or
instructor's permission
Recommended preparation: Background in political and social
theory and some background in South Asia

HIS47IHI United States and Globalization $26 S$
This course considers the origins and evolution of U.S. experiences with globalization: attention is paid to economic, technological, cultural, and institutional developments during the past century.
Prerequisite: HIS27 IYI/377YI
Recommended preparation: HIS377YI

## HIS472HI Topics in Aboriginal History26S (formerly HIS472YI)

Major themes in the history of Aboriginal-White relations in Canada. Topics included are: role of native people in the creation of British North America and in the Western fur trade; the emergence of the Métis; analysis of colonial Indian policy; the Red River Resistance; the making of treaties; the North West Rebellion; the struggle for survival in post-treaty Canada; the emergence of "red power"; contemporary and feminist issues. (Joint undergraduate-graduate)
Exclusion: HIS472YI
Prerequisite: HIS262YI/263YI

## HIS473YI The United States and Asia in the Cold War Era (formerly HIS 473HI)

This seminar examines strategic, economic, ideological, and cultural factors in U.S. relations with East and Southeast Asia. Major themes include the role of cultural and informal diplomacy and the effect of perceptions and misperceptions on both sides of U.S.-Asian interactions.
Prerequisite: HIS344Y/372YI/377YI
Exclusion: HIS 473HI

## HIS475HI Race, Segregation, and Protest: 26S South Africa and the United States

This course explores the origins, consolidation, and unmaking of segregationist social orders in South Africa and the American South. It examines the origins of racial inequality, the structural and socio-political roots of segregation, and the twin strategies
of accommodation and resistance employed by black South Africans and African Americans. (Joint undergraduate-graduate) Recommended preparation: HIS27IYI/295YI

| HIS476HI | Voices from Black America <br> (formerly HIS476YI) |
| :--- | :--- |

The history of Black Americas seen through the eyes of some of the men and women who experienced it. Attention is given to slavery but emphasis is on the twentieth century. Students examine autobiographical works, novels, and film.
Prerequisite: HIS27IYI
Exclusion: HIS476YI
HIS477HI Topics in the Social and 26S
Cultural History of Victorian Britain (formerly HIS477YI)
Examination of the impact of industrialism on Victorian society and values. Concentration on Victorian social critics including Engels, Owen, Maynew, Dickens and Morris.
Recommended preparation: A course in modern British
History/Victorian literature
Exclusion: HIS477YI
$\begin{array}{ll}\text { HIS478HI } & \begin{array}{l}\text { Hellhound on my Trail: } \\ \text { Living the Blues in the }\end{array}\end{array}$ Mississippi Delta, 1890-1945
This course examines black life and culture in the cotton South through the medium of recorded blues music. It seeks to restore a voice and a sense of agency to black southerners in the age of Jim Crow. Topics include the plantation economy, agricultural life, mobility, migration, and urban subcultures.
Recommended Preparation: HIS 27 IYI/USA 300HI
HIS479HI American Foreign Policy Since 26S
World War II
(formerly HIS479YI)
An in-depth study of U.S. behaviour in the global arena since World War II. Particular attention will be paid to the origins and evolution of the Cold War, the Vietnam War, the initiatives of the Nixon-Kissinger years, the end of the Cold War, and the relevance of "globalization."
Prerequisite: HIS27IYI/377YI
Exclusion: HIS479YI
HIS480HI Modernity and its Others: 26S History and Postcolonial Critique
Engaging with influential perspectives in postcolonial historiography, this seminar tracks three major themes in the history of the idea of modernity from the late 18th through the 20th centuries: political freedom, citizenship and the nationstate; capitalism and its critique; and the relationship of history, memory, and identity. (Joint undergraduate-graduate)
Prerequisite: a mark of $73 \%$ or higher in HIS 282YI, or instructor's permission
Recommended preparation: History of colonialism, political theory, or postcolonial literatures

## HIS48 I HI Elite Women, Power, and 26S

Modernity in Twentieth-Century Africa
The role of elite women in twentieth-century Africa has been overshadowed by studies of non-elite women so much so as to suggest that all women lacked power. This course aims to show how a very limited but important group of women negotiated power in a century of increasing patriarchy. It combines gender with class analysis.
Prerequisite: HIS $295 \mathrm{HI} / 296 \mathrm{YI} / 383 \mathrm{HI} / 396 \mathrm{HI}$ or permission of instructor

## HIS483HI Men, Women and Gender in <br> Europe, 1400-I 800 <br> (formerly HIS483YI)

This research seminar builds on work done in lower-level gender history courses. It focuses on intensive study of sources and methodologies for the history of masculinities and women in early modern Europe. The main assignment is an independently-designed major research project.
Prerequisite: HIS245YI/306YI/354HI
Exclusion: HIS483YI

## HIS484HI The Car in North American

History (formerly HIS484YI)
This seminar examines the history of the car in North America from the perspective of technology, business, landscape and popular culture. Particular attention is paid to issues of production, consumption, geography, and daily life, and to the importance of class race, gender, region, and age in shaping the meaning and experience of car culture.
Prerequisite: HIS263YI/27IYI
Exclusion: HIS484YI
$\begin{array}{ll}\text { HIS485HI } & \begin{array}{l}\text { Topics in Late Imperial and } \\ \text { Modern Chinese History }\end{array} \\ & \text { (formen }\end{array}$
(formerly HIS485YI)
A seminar on aspects of Chinese history from 1368 to the present, with emphasis on social history. Topics vary and include: social structure in Ming-Qing China; religion and ritual in Chinese society; Chinese popular culture. (Joint undergraduategraduate)
Exclusion: HIS485YI
Prerequisite: EASI02YI/HIS280YI, HIS380YI/JMC20IYI

## HIS486HI Love, Money, and Subjectivity

## in Sub-Saharan Africa

This course examines the denial of African subjectivity - feelings, thoughts, and concerns - by western cultures from the time of the trans-Atlantic slave trade until the present. At the same time it examines the overwhelming evidence of African subjectivity and how these feelings, thoughts and concerns have changed over the same period due to the effects of capitalism. Other topics that are covered include slavery, racism, colonialism, anthropology, and ethnology. (Joint undergraduate-graduate) Prerequisite: A 200- or 300-level course in African Studies
$\begin{array}{lll}\text { HIS488HI } & \begin{array}{l}\text { The Secret War, I939-1945 } \\ \text { (formerly HIS488YI) }\end{array} & 26 S\end{array}$
The development of intelligence techniques and operations in wartime conditions; the role of espionage, cryptanalysis and deception in deciding the battles and campaigns of the Second World War.
Prerequisite: Any two courses from: EUR200YI/HISI03YI/ $24 \mathrm{HI}, 242 \mathrm{HI} / 343 \mathrm{YI} / 344 \mathrm{YI}$
Exclusion: HIS488Y I

## HIS489HI The History of Psychiatry and 26S

 Psychiatric IllnessIntroduces students to some of the main issues in the history of psychiatry. Readings from the secondary historical literature are distributed and discussed in class, covering such topics as changes in the nature of psychotic illness, the psychoneuroses, disorders of the mind/body relationship, and the psychiatric diagnosis and the "presentation" of illness. (Joint undergraduategraduate)
Prerequisite: a minimum of one course in HIS/PSY/SOC Exclusion: HIS423YI

HIS492YI Britain and the French Revolution, 52 S 1785-1801
(formerly HIS492HI)
Britain's response to the French Revolution and revolutionary wars studied through selected topics in political theory, the history of popular movements, the experience of industrialization and foreign policy.
Prerequisite: Any course in Western European or British History
Exclusion: HIS492HI
HIS493HI Cultural Encounters in 26S Early Canada
Issues of identity and difference in the meeting of Natives and Europeans during colonization of Canada. Eastern, Western and Arctic Canada, 16th- to early 19th-centuries.
$\begin{array}{ll}\text { HIS494YI } & \text { Kinship, Slavery and Citizenship 52S } \\ \text { in West Africa c. } 1500 \text { to the present }\end{array}$
Slavery has often been used to define both kinship and citizenship in African history, just as slavery and citizenship have been seen as threats to kinship, and kinship and slavery have been seen as obstacles to citizenship. This course examines the relationship between these three topics in West African history. Prerequisite: HIS295Y I/395YI

| HIS495HI | Topics in History <br> (formerly HIS495YI) |
| :--- | :--- |

An in-depth examination of historical issues. Content in any given year depends on instructor. See Undergraduate Handbook or History website for more details.
Exclusion: HIS495YI
Recommended preparation:Varies from year to year
HIS496HI Topics in History 26S

An in-depth examination of historical issues. Content in any given year depends on instructor. See Undergraduate Handbook or History website for more details.
Recommended preparation:Varies from year to year
HIS498HI/ Independent Studies TBA

## 499YI

These courses assume the form of an undergraduate thesis. Students must find an appropriate supervisor from the Department, receive approval for the project, and submit an Independent Studies ballot. Students must be enroled in either a History Specialist or Major program, with a B+ average in no less than 4 HIS courses, or with special permission of the instructor. Applications must be received in September for first session courses; in December for second session courses.

## Sponsored by the Institute for the History and Philosophy of Science and Technology

## Faculty

## University Professor Emeritus

T.H. Levere, MA, D Phil, D Litt, FRSC (V)

Professors Emeriti
P.M.H. Mazumdar, MB, M Tech, Ph D (V)
M.P.Winsor, M Phil, Ph D (V)

Professor and Director of the Institute
P.Thompson, MA, Ph D (V)

## Professors

C. Fraser, MS, Ph D (V)
B.S. Hall, BA, Ph D (V)
A.R. Jones, BA, Ph D, FRSC (V)
J. Langins, M Eng, Ph D (V)

Associate Professors
B. Baigrie, MA, Ph D (V)
J. Berkovitz, BSc, MA, Ph D (V)
A. Chakravartty, BSc, MA, M Phil, Ph D (V)
N. Krementsov, Diploma Candidate of Sciences/History and Philosophy of Science and Technology ( V )
D. Walsh, BSc, BA, M Phil, Ph D, Ph D (V) Canada Research Chair

## Assistant Professors

L. Dacome, BA, M Phil, Ph D (V)
M. Solovey, BA, MA, MA, Ph.D. (V)
M.Vicedo, BA, MA, Ph.D., Ph.D. (V)
C.-P.Yeang, BS, SM, Ph D, Sc D (V)

The history and philosophy of science and technology cuts across traditional disciplines of the sciences and the humanities. HPS courses treat the sciences and technology, including mathematics and medicine, as being historically and philosophically significant in themselves, and also as being integral components of the general development of knowledge, culture, and society. The undergraduate courses serve to introduce the student to this discipline, and also to provide a wider context for understanding science and technology. All courses have a substantial historical component, and many deal with philosophical, sociological and related issues. For example, students of history will find courses in the history of science to be an important part of social and intellectual history, while students of economic history may be especially interested in the history of technology. For philosophy students, history of science courses form a natural adjunct to issues in the theory of knowledge, philosophy of science and history of philosophy. Students of the humanities with particular interests in the physical or biological sciences, technology, engineering, mathematics, or medicine will naturally be interested in HPS courses, and students in these scientific disciplines will benefit from the broad historical and philosophical perspective on their studies that HPS courses can provide.

Some students may wish to plan their entire programs around a core of HPS courses. The Major program in HPST listed is suitable training for medical school, the law, elementary and secondary
school teaching, museum and library work, science writing and editing, and other fields where competence in both science and humanities is valuable. Students considering graduate study in this field should seek direction from an IHPST faculty member. For more information consult the IHPST Undergraduate Handbook, available at the Institute.

Undergraduate Coordinator:
Professor D.Walsh,Victoria College, Room 3I6A (4I6-978-5847)
Email: denis.walsh@utoronto.ca
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Victoria College, Room 316 (4I6-978-5397)

## History and Philosophy of Science and Technology Programs

Enrolment in the History and Philosophy of Science and Technology programs requires the completion of four courses; GPA of 1.7 required.

## History and Philosophy of Science and Technology

 (Arts program)Major program:
(7 full courses or their equivalent)
Admission requires GPA of 1.7 and continuation in the program requires maintenance of a GPA of 2.3
I. One course in science, choices subject to the approval of the Under Graduate coordinator. It is recommended that it include a laboratory or practical component; HISI09YI
2. HPS2IOHI; HPS2IIHI;HPS250HI; HPS $350 \mathrm{HI} ; \mathrm{HPS} 201 \mathrm{HI} /$ 202HI
3. One additional course at HPS300+ level
4. One $200+\mathrm{H}$ science half course; one $300+$ science half course; HIS200+ series half course/CLA203HI/CLA206HI
Recommended preparation: HPSIOOHI. It is further recommended that the first HPS courses taken (other than HPSIOOHI) be HPS2IOHI and HPS2IIHI

All the specialist, major, and minor programs listed below will no longer be offered.
Students admitted to these programs prior to September 2004 may complete their programs as described below.

## History and Philosophy of Science (Arts program)

## Specialist program:

(II.5 full courses or their equivalent)
I. Three 200+ series courses in science, choices subject to the approval of the Undergraduate Coordinator
2. HPS $200 \mathrm{YI} /(2 \mathrm{I} 0 \mathrm{HI}+2 \mathrm{IIHI}), 250 \mathrm{HI} ; \mathrm{PHL} 2 \mathrm{IOYI}, 245 \mathrm{HI}$
3. 2.5 additional HPS courses. Students may substitute courses in the history of science or the history of thought offered in other departments for up to two courses, with approval of the Undergraduate Coordinator
4. Four PHLI/PHI half-courses in epistemology, logic and formal semantics, philosophy of science

## History and Philosophy of Science and Technology

5. One additional 400 series HPS/PHL course. Of the other HPS/PHL courses, three must be $300+$ series

## Major program:

(7 full courses or their equivalent)
I. Two 200+ series courses in science, choices subject to the approval of the Undergraduate Coordinator
2. HPS $200 \mathrm{Y} I /(2 \mathrm{I} 0 \mathrm{HI}+2 \mathrm{IIHI}), 250 \mathrm{HI}, \mathrm{PHL} 2 \mathrm{IOYI}, 245 \mathrm{HI}$
3. One 300+ series PHL course in epistemology, logic and formal semantics, philosophy of science
4. One other HPS 300+ series course

## Minor program:

(4 full courses or their equivalent)
I. HPS 200YI/(2IOHI + 2IIHI), 250 HI ; PHL $2 \mathrm{IOYI}, 255 \mathrm{HI}$
2. One HPS/PHL 300+ series course

History of Science and Technology (Arts program)

## Specialist program:

(II full courses or their equivalent)
I. Two 100+ series and three 200+ series courses in science, choices subject to the approval of the Undergraduate Coordinator
2. HIS I09YI plus one other course in history, choice subject to the approval of the Undergraduate Coordinator
3. Three HPS courses, of which two may be courses in history of science offered by another department, subject to the approval of the Undergraduate Secretary. CLA 203 HI will be treated as an HPS course
4. One HPS 400-series course

## Note:

At least three of the above ten courses must be $300+$ series

## Major program:

(7 full courses or their equivalent)
I. Two 200+ series courses in science or technology, choices subject to approval of the Undergraduate Coordinator
2. Five HPS courses, at least two of which must be 300+ series courses; up to two courses in history or the history of science offered in other departments may be substituted with the approval of the Undergraduate Coordinator

## Minor program:

(4 HPS full courses or their equivalent)
Four HPS courses, of which at least one must a 300+ series course. One course may be replaced by a course in the history of science offered by another department, but requires approval of the Undergraduate Coordinator.

## History and Philosophy of Science and Technology Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), some HPS courses are cross-listed; check individual course descriptions.

HPSI00HI Introduction to History and 26L, I3T Philosophy of Science
An investigation of some pivotal periods in the history of science with an emphasis on the influences of philosophy on the scientists of the period, and the philosophical and
social implications of the scientific knowledge, theory and methodology that emerged.
This counts as a Humanities or Science course
HPS20IHI Origins of Western Technology 26L, I3T
Technology and its place in our culture from Antiquity to the beginnings of the Industrial Revolution. Relations between technology and science, religion, the arts, social institutions, and political beliefs.
This is a Humanities course
HPS202HI Technology in the 26L, I3T

## Modern World

A survey of technical change and its social implications from the Industrial Revolution to the present.
Recommended preparation: HPS2OIHI
This is a Humanities course
HPS2I0HI Scientific Revolutions I 26L, I3T (formerly HPS200YI)
Case studies in the history of science from antiquity to 1800 , including the revolutionary work of Copernicus, Kepler, Galileo, Descartes, Newton, Linnaeus, Lavoisier, and Herschel. The course is designed to be accessible to science students and non-scientists alike.
This counts as a Humanities or Science course Exclusion: HPS200Y I

HPS2IIHI 26L, I3T
Case studies in the history of science from 1800 to 2000, including Volta, Lyell, Darwin, Mendel, Einstein, Schrödinger, Watson, and Crick. The course is designed to be accessible to science students and non-scientists alike.
This counts as a Humanities or Science course Exclusion: HPS200Y I

HPS250HI Introductory Philosophy 26L, I3T of Science
This course introduces and explores central issues in the philosophy of science, including scientific inference, method, and explanation. Topics may include underdetermination, realism and empiricism, and laws of nature.
This is a Humanities course

## HPS299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.

## HPS300HI Topics in History and Philosophy TBA of Science and Technology

Topics vary year to year.
This is a Humanities course
HPS306HI Technology and War 26L, I3
An examination of the tools of war in the Western world from the Middle Ages to World War II, including not only weapons but the means of transportation, communication, and organization used in violent conflict. The effects of war on the development of science and technology.
Exclusion: HPS4I7HI
Recommended preparation: HPS20IHI/202HI or any HIS course
This is a Humanities course

The history of human control of various sources of energy, including technical developments, scientific theories, and impact on culture and society. Recent debates on fossil fuel and nuclear power examined in historical context.

# History and Philosophy of Science and Technology 

Recommended preparation: HPS20IHI/202HI or any HIS course
This is a Humanities course
HPS3IIHI History of Physics
Topics in the history of physics from antiquity to the 20th century, including Aristotelian physics, Galileo, Descartes, electromagnetism, thermodynamics, statistical mechanics, relativity, quantum physics, and particle physics. The development of theories in their intellectual and cultural contexts.
Prerequisite: At least one PHY course at university level This is a Humanities or Science course

HPS3I2HI History of Chemistry I3S
The emergence of the modern discipline of chemistry from 1785 to 1939. Seminar discussions focus on key papers of important Historical analysis of the interplay between theory and practice, and of the dynamics of scientific communities Prerequisite: At least one CHM course at university level This is a Humanities or Science course

HPS3I3HI Two Hundred Years of Electricity 26L
A history of the science and technology of electricity in the 19th and 20th centuries in its social, economic, and cultural context.
This is a Humanities or Science course.
HPS3I8HI History of Medicine I 26L, I3T
A survey of medical theory and practice from Antiquity to the Renaissance, with emphasis on medicine's social, cultural and political setting.
Exclusion: HPS3I4YI
This is a Humanities course
HPS3I9HI History of Medicine II 26L, I3T
A survey of medical theory and practice from the 17th century to the modern welfare state, with emphasis on medicine's social, cultural and political setting.
Exclusion: HPS3I4YI;3I5HI

## This is a Humanities course

## HPS322HI Complexity, Order, and Emergence

 A survey of the history of and recent developments in the scientific study of complex systems and emergent order. There will be particular emphasis on the biologicaland cognitive sciences. Topics covered my include: mechanism and teleology in the history of science, 19th and 20th century emergentism, complex systems dynamics, order and adaptiveness, selforganisation in biology and congitive development.This is a Humanities course.
HPS324HI Natural Science and 26L, I3T

## Social Issues

Historical examination of the interactions of science (both as body of knowledge and as enterprise) with ideological, political and social issues. The impact of science; attacks on and critiques of scientific expertise as background to contemporary conflicts. Subjects may vary according to students' interests.
This is a Humanities course
HPS326HI History of Science and Religion 13S, I3T
From its origins in the Renaissance, modern science has developed in the context of European religious beliefs and institutions. Although cases of conflict like Galileo or the "Monkey Trial" are famous, more common are cases of scientists like Newton or Faraday whose religious convictions were crucial to their scientific success.
This is a Humanities course

## HPS343HI History of Pre-Electronic Computing

26L
Computing technology from Chaldean astronomy to the advent of British and U.S. mass production of electronic mainframes
in 1953. Emphasis will be on uses and users, especially on great
figures from Babbage through von Neumann, but hardware
descriptions will also be featured.
This counts as a Humanities or Science course.

## HPS344HI History of Mainframe Computing <br> 26L

Covers the period from mass production in 1953 to the emergence of minicomputers around 1969. Beginnings of software and services industries, networking, university computer science. Emphasis on international developments. This counts as a Humanities or Science Course

## HPS350HI Revolution in Science

26S
An investigation into the nature and development of scientific knowledge, inspired by Kuhn's notion of revolutions. Topics may include incommensurability, the rationality of theory choice, and social constructivism.
Prerequisite: HPS250HI or permission of the instructor
This is a Humanities course

## HPS352HI History and Philosophy of the 26L

 Social SciencesThis course explores central developments, ongoing controversies, and major figures in the social sciences: sociology, economics, political science, anthropology, and the behavioral sciences. It concentrates on such prominent individuals as: Rene Descartes, Thomas Hobbes, John Locke, Adam Smith, Karl Marx, Franz Boas, Sigmund Freud, and Gunnar Myrdal.
This is a Humanities or Social Science course.
HPS353HI 26L, I3T

An examination of major ideas about biological evolution from the 18th century to the 1930's and of their impact on scientific and social thought. Topics include the diversity of life and its classification, the adaptation of organisms to their environment, Wallace's and Darwin's views on evolution by natural selection, sexual selection, inheritance from Mendel to T.H. Morgan, eugenics, and the implications of evolution for religion, gender roles, and the organization of society.
Exclusion: ZOO354YI/HPS323HI/EEB353HI
Prerequisite: 6 full courses or equivalent including one HPS half course or BIOI50Y.
This counts as a Humanities or Science course

| HPS355HI | History of Evolutionary 26L, I3T <br> Biology II <br> (formerly HPS333HI) |
| :--- | :--- |

An examination of ideas about biological evolution from the 1930's to the present. Topics include the Modern Synthesis, population genetics, the concept of biological species, ecology, sociobiology, and creationism.
Exclusion: ZOO354YI/HPS333HI/EEB355HI
Prerequisite: HPS323HI/HPS353HI/EEB353HI
This counts as a Humanities or Science course

## PHL355HI Philosophy of Science

See "Philosophy"
HPS360HI History of Modern Cosmology 26L, I3T
Conceptions of the universe since 1800 with attention to observational sources of changing ideas. History of large telescopes, stellar spectroscopy and radio astronomy. Relativistic

## History and Philosophy of Science and Technology

conceptions of space and time, models of stellar evolution, discovery of extra-galactic nebulae, Hubble red-shift and microwave background radiation. Philosophical and religious implications are examined.
This counts as a Humanities or Science course
HPS375HI Science and Technology in 26L, I3S The Realms of Islam, 600-1600, Part I: The Mathematical Sciences and their Practical Applications (formerly HPS275HI)
First part of a series on the history of science and technology in the Islamic world. History of the exact sciences, including mathematics, astronomy, optics, and cartography.
Prerequisite: At least one MAT or Science course at university level
Exclusion: HPS275HI, NMC379HI
This counts as a Humanities or Science course

| HPS376HI | Science and Technology in 26L, I 3S <br>  <br> the Realms of Islam, 600-1600, Part II: |
| :--- | :--- |
|  | The Life Sciences |
|  | (formerly HPS276HI) |

Second part of a series on the history of science and technology in the Islamic world. History of biological and life sciences, including history of medicine, botany, agriculture, and alchemy.
Prerequisite: At least one MAT or Science course at university level
Exclusion: HPS276HI, NMC379HI
This counts as a Humanities or Science course
HPS390HI History of Mathematics
26L, I3T up to $\mathbf{I 7 0 0}$
A survey of ancient, medieval, and early modern mathematics with emphasis on historical issues. (Offered in alternate years) Exclusion: 3IOYI; MAT220YI
Prerequisite: At least one full course equivalent at the 200+level from CSC/MAT/STA
This counts as a Humanities or Science course
HPS39IHI History of Mathematics 26L, I3T after 1700
A survey of the development of mathematics from 1700 to the present with emphasis on historical issues. (Offered in alternate years)
Exclusion: HPS3IOYI; MAT220YI, MAT39IHI
Prerequisite: At least one full course equivalent at the 200+level from CSC/MAT/STA
This counts as a Humanities or Science course

## HPS4IOHI History of Mathematics

An historical survey from pre-Greek to the present. Various themes are emphasized year to year, to show mathematics as changing and evolving. A student could expect to gain an historical overview as well as a sense of the unity of the mathematical sciences.
Prerequisite: HPS309YI/3IOYI/390HI/39IHI/MAT220YI and permission of instructor
This is a Humanities course
HPS4I2HI History of the Biological Sciences 26S Advanced level survey of biological science from ancient Greece to the 20th century emphasizing primary sources analyses.
Prerequisite: HPS $200 \mathrm{YI} /(210 \mathrm{HI}+2 \mathrm{IIHI}) / \mathrm{ZOO} 354 \mathrm{YI} /$ HPS $323 \mathrm{HI} ; \mathrm{HPS} 333 \mathrm{HI}$ and permission of instructor Recommended preparation: BIOI50YI/European history/ Philosophy

This is a Humanities course
HPS427HI $\begin{aligned} & \text { Historical Foundations of } \\ & \text { Chemistry }\end{aligned}$
The development of chemistry from the Chemical Revolution of Lavoisier to the periodic table of Mendeleev: electro-chemistry, the rise of organic chemistry, classification, valency, structural chemistry.
Prerequisite: Permission of instructor
This is a Humanities course
HPS430HI History of Technology I 26S
An advanced survey of the history of technology from Antiquity to the Industrial Revolution.
Prerequisite: Permission of instructor
Recommended preparation: HPS2OIHI/202HI
This is a Humanities course
HIS43IHI History of Technology II 26S
An advanced survey of the history of technology from the Industrial Revolution to modern times.
Prerequisite: Permission of instructor
Recommended preparation: HPS2OIHI/202HI
This is a Humanities course
HPS495YI Individual Studies TBA
A reading and research project in some aspect of history
of science and technology, supervised by a faculty member.
Projects must be approved by the Institute and are subject to availability of a faculty supervisor.
Prerequisite: Two HPS courses
This is a Humanities course
HPS496HI/ Individual Studies TBA 497HI
A reading and research project in some aspect of the social, cultural or intellectual history of science and technology, supervised by a faculty member. Projects must be approved by the Institute by the previous June for a Fall course or by November for a Spring course, and are subject to availability of a faculty supervisor.
Prerequisite:Two HPS courses
HPS498HII Individual Studies TBA 499HI
A reading and research project in some aspect of the development of scientific theory or practice, supervised by a faculty member. Projects must be approved by the Institute by the previous June for a Fall course or by November for a Spring course, and are subject to availability of a faculty supervisor. Prerequisite:Two HPS courses

## Faculty

## Professors

E.K.Armatage, Ph D

## Associate Professors

R. DiFrancesco, Ph D
C. Keil, Ph D

## Assistant Professors

C. Columpar, Ph D
A. Fenner, Ph D
N. Sammond, Ph D

## Senior Lecturers

C. Messenger, MA
R.E. Riendeau, MA
B.W. Testa, MA

## Lecturers

S. Brail, Ph D
S. English, MA

The courses offered at Innis College are integral to its three academic programs: Cinema Studies; Urban Studies; Writing and Rhetoric.

## Cinema Studies

Cinema Studies treats film primarily as a unique and powerful art form with its own traditions, history, conventions, and techniques. Understanding film, its properties, methods, aesthetics, and its impact on culture and society, is the basis of Cinema Studies. The Program provides a wide variety of approaches: the history and development of cinema; film theory and critical analysis; the study of genres, national cinemas, and the works of individual masters of cinema; and the examination of film in relation to other arts and academic fields.

Further details are available on the Cinema Studies website [www.utoronto.ca/cinema].

Enquiries: Deborah Ohab, Program Assistant, (416-978-5809), d.ohab@utoronto.ca

## Urban Studies

Urban Studies at Innis College provides students with the tools to make sense of their urban world. The Program examines the complex and dynamic relations among institutions, people, and physical form that create, sustain, or destroy cities.

The Program is suited for those students who wish to study cities using several disciplinary approaches. It is also of interest to those students who wish to become involved in urban issues in Toronto. The Program offers an internship in the office of either a municipal politician, non-profit research group, or other government organization as part of its third-year course and extensive field research in the fourth-year seminar.

Because urban issues are so varied, a Major or Minor in Urban Studies combines well with Specialists or Majors in many other areas. Students are advised to consult the Program Director when designing programs that meet their particular interests. The Program encourages students to take advantage of the Study Elsewhere Program at the University of Toronto to broaden their knowledge of cities.

Enquiries: Innis College Secretary, (4I6-978-7023), collegesecretary.innis@utoronto.ca

## Writing and Rhetoric

The Minor Program in Writing and Rhetoric is built on a foundation of Innis College courses that cover academic essay writing, rhetoric, critical thinking, creative writing, media analysis, and writing in the workplace. The Program also draws on relevant University of Toronto courses in a range of disciplines. The Program's design reflects three interrelated themes.

## Writing:

This discipline involves more than instruction in composition skills. Writing is related to rhetoric, logic, reasoning, and critical thinking. One of the main goals of the Program is to ensure that students graduate with a solid grounding in various modes of writing and with highly developed transferable skills.

Rhetoric:
Classical rhetorical terms and methods of argumentation and persuasion are central to the study of rhetoric. One of the oldest disciplines in the liberal arts, rhetoric as a contemporary discipline focuses on the influence of discourse on social forces. For the purposes of this Program, rhetoric will, broadly speaking, be used to signify both rhetoric in the classical sense of the term and the patterns of communication identifiable in a variety of disciplines and environments.

## Critical Analysis:

One of the tenets of the Program is shared by many of the University's Arts and Science disciplines: that problem-solving and creative, persuasive, and effective writing depend on the ability to analyze discourse critically.
Enquiries: Cynthia Messenger, Program Director, Room 314 Innis College (4I6-978-6508), cynthia.messenger@utoronto.ca

## Innis College Programs

## Cinema Studies (Arts program)

Consult the Program Assistant, Deborah Ohab, (4I6-978-5809 or d.ohab@utoronto.ca) or the Cinema Studies Website: www. utoronto.ca/cinema

Enrolment in the Cinema Studies programs requires completion of INIIISY and three additional full-course equivalents. A minimum grade of $70 \%$ in $I N I I I 5 Y I$ is required.
Note: All Cinema Studies programs are Type 3 (limited enrolment) programs. See Registration Handbook and Timetable for application procedures.
For students applying to the Specialist program, only those with a CGPA of at least 2.5 will be considered. Meeting the minimum GPA requirement may not guarantee admission.

For students applying to the Major program, only those with CGPA of at least 2.3 will be considered. Meeting the minimum GPA requirement may not guarantee admission.
For students applying to the Minor program, only those with CGPA of at least 2.0 will be considered. Meeting the minimum GPA requirement may not guarantee admission.

## Innis College

## Specialist program:

(IO full courses or their equivalent, with at least one at the 400level and three others at the 300+ level)

First Year:
INIII5YI
Higher Years:
I. INI2I2YI, 214YI
2. One full-course equivalent from Group B
3. One full-course equivalent from Group $C$
4. Five additional full-course equivalents from Groups B, C, D, E, with no more than two from Group D

## Major program:

(7 full courses or their equivalent, with at least two at the 300/400 level)
First Year:
INIII5YI
Higher Years:

1. INI 2I2YI, 2I4YI
2. One full-course equivalent from Group $B$ or $C$
3. Three additional full-course equivalents from Groups $B, C$, D, or E, with no more than one from Group D

## Minor program:

(4 full courses or their equivalent, with at least one at the 300+level)
I. INIII5YI
2. INI $2 I 2 Y I$ or $2 I 4 Y \mid$
3. Two additional full-course equivalents from Groups $A, B, C$, D, or E

## Group A: Foundations :

INIII5YI, 2I2YI, 2I4YI
Group B:Theory and Genre:
INI $224 \mathrm{YI}, 226 \mathrm{H}, 227 \mathrm{H}, 322 \mathrm{YI}, 323 \mathrm{YI}, 325 \mathrm{YI}, 327 \mathrm{YI}, 329 \mathrm{YI}$, $330 \mathrm{YI}, 374 \mathrm{HI}, 375 \mathrm{HI}, 383 \mathrm{H}, 384 \mathrm{HI}, 396 \mathrm{YI}, 397 \mathrm{HI}, 398 \mathrm{HI}$

## Group C: Cinema, Nation, World:

EAS237YI, 35 IHI ; FCS3IOYI; FIN $250 \mathrm{HI}, 260 \mathrm{HI}$; GER 35 IHI , $352 \mathrm{HI} ; 364 \mathrm{HI}$; HIS $335 \mathrm{HI}, 459 \mathrm{HI}, 460 \mathrm{HI}, 467 \mathrm{YI}$; HUN 35 IHI , 45 IHI ; INI $225 \mathrm{YI}, 324 \mathrm{YI}, 380 \mathrm{YI}, 38 \mathrm{IHI}, 382 \mathrm{HI}, 385 \mathrm{YI}$,
386HI, 390YI; ITA240YI, 340HI, 34IHI; 347HI; NEW352YI; SLA $225 \mathrm{HI}, 226 \mathrm{HI}, 234 \mathrm{HI}, 235 \mathrm{HI}, 244 \mathrm{H} ;$ SMC 354 YI ; UNI 335 HI

## Group D: Interdisciplinary:

CLA $388 \mathrm{HI} ;$; FCS 33 IHI ; HIS $345 \mathrm{HI}, 367 \mathrm{HI}, 375 \mathrm{YI}, 447 \mathrm{YI} ;$
NEW308HI; SLA424HI;UNI22IHI, 325HI;VIC 3IIYI, 4IIHI; VIS $202 \mathrm{HI}, 302 \mathrm{HI}$

## Group E: Senior Seminars:

EAS43IHI; INI $423 \mathrm{HI}, 426 \mathrm{HI}, 428 \mathrm{HI}, 429 \mathrm{H}, 460 \mathrm{HI}, 46 \mathrm{HI}$, $462 \mathrm{HI}, 463 \mathrm{HI}, 464 \mathrm{HI}, 465 \mathrm{HI}, 476 \mathrm{YI}, 477 \mathrm{HI}, 478 \mathrm{HI}, 482 \mathrm{YI}$, $483 \mathrm{HI}, 484 \mathrm{HI} ;$ ITA 44 IHI

## Urban Studies (Arts program)

For Program requirements and information, consult the College Secretary at 416-978-7023 or collegesecretary.innis@utoronto. ca.

Note: All Urban Studies programs are Type 3 (limited enrolment) programs (see Registration Handbook and Timetable for application procedures). As a Type 3 program, the admission process is competitive and meeting minimum CGPA requirements does not guarantee admission.

## Specialist program:

(II full courses or their equivalent including at least four 300+ series courses with at least one 400 -level course)

Enrolment in the Specialist program in Urban Studies is limited. Successful enrolment requires prior enrolment in the Urban Studies Major, completion of ten full-course equivalents, and a mark of at least $70 \%$ in INI235YI.

First Year:
Three of ECOI00YI/I05YI, GGRI24YI, a I00-level POL course or POL2I4YI, SOCIOIYI
Higher Years:
I. INI $235 \mathrm{YI}, 306 \mathrm{YI}, 430 \mathrm{Y} I$
2. ECO220YI/GGR270HI, GGR27IHI/POL242YI/ SOC200YI/300YI
3. Four full-course equivalents selected from Groups $A$ through G; no more than one full-course from any group

## Major program:

(7 full courses or their equivalent, including at least two $300+$ series courses)

For admission to the Major program, a minimum CGPA of 2.3 is required.
First Year:
Two of ECOIOOYI/I05YI, GGRI24YI, a I00-level POL course or POL2I4YI, SOCIOIYI
Higher Years:
l. INI235YI
2. Either INI 306 YI or 430 YI
3. Three full-course equivalents from Groups A through G; no more than one full-course equivalent from any group

## Minor program:

(4 full courses or their equivalent, including at least one 300+ series course)
For admission to the Minor program, a minimum CGPA of 2.3 is required.
First Year:
One of ECOI00YI/ECOI05YI, GGRI24YI, a I00-Level POL course or POL2I4YI, SOCIOIYI.
Higher Years:
I. INI235YI
2. INI306YI or INI430YI
3. One full course equivalent from Groups $A$ through $G$

## Group A: Architecture

FAH $2 \mathrm{I} 5 \mathrm{HI}, 2 \mathrm{I} 6 \mathrm{HI}, 23023 \mathrm{IHI}, 260 \mathrm{HI}, 270 \mathrm{HI}, 272 \mathrm{HI}, 300 \mathrm{HI}$, $303 \mathrm{HI}, 309 \mathrm{HI}, 3 \mathrm{I} 8 \mathrm{HI}, 327 \mathrm{HI}, 330 \mathrm{HI}, 339 \mathrm{HI}, 34 \mathrm{IHI}, 364 \mathrm{HI}$, $370 \mathrm{HI}, 37 \mathrm{IHI}, 372 \mathrm{HI}, 373 \mathrm{HI}, 374 \mathrm{HI}, 375 \mathrm{HI}, 376 \mathrm{HI}, 39 \mathrm{YO}$, $392 \mathrm{YO}, 393 \mathrm{YO}, 394 \mathrm{YO}, 395 \mathrm{YO}, 396 \mathrm{YO}, 397 \mathrm{YO}, 404 \mathrm{HI}, 4 \mathrm{I} 8 \mathrm{HI}$, $420 \mathrm{HI}, 42 \mathrm{IHI}, 470 \mathrm{HI}, 47 \mathrm{IHI}, 477 \mathrm{HI}$.

## Group B: Economics

ECO $239 \mathrm{YI}, 230 \mathrm{YI}, 30 \mathrm{YI}, 302 \mathrm{HI}, 303 \mathrm{YI}, 307 \mathrm{HI}, 308 \mathrm{HI}$, $309 \mathrm{HI}, 3 \mathrm{IOYI}, 3 \mathrm{I} 3 \mathrm{HI}, 3 \mathrm{I} 4 \mathrm{HI}, 32 \mathrm{YY}, 324 \mathrm{YI}, 328 \mathrm{YI}, 333 \mathrm{YI}$, $336 \mathrm{YI}, 338 \mathrm{HI}, 339 \mathrm{YI}, 340 \mathrm{HI}, 342 \mathrm{YI}, 360 \mathrm{YI}, 369 \mathrm{YI}, 370 \mathrm{YI}$,
$380 \mathrm{HI}, 382 \mathrm{HI}, 4 \mathrm{I} 8 \mathrm{HI}, 4 \mathrm{I} 9 \mathrm{HI}, 423 \mathrm{HI}, 424 \mathrm{HI}, 425 \mathrm{HI}, 435 \mathrm{HI}$, $450 \mathrm{HI}, 45 \mathrm{IHI}, 459 \mathrm{HI}, G G R 220 \mathrm{YI}, 326 \mathrm{HI}$

## Group C: Geography

GGR $2 \mathrm{I} 6 \mathrm{HI}, 240 \mathrm{HI}, 246 \mathrm{HI}, 249 \mathrm{HI}, 252 \mathrm{HI}, 254 \mathrm{HI}, 323 \mathrm{HI}$, $324 \mathrm{HI}, 327 \mathrm{HI}, 328 \mathrm{HI}, 339 \mathrm{HI}, 343 \mathrm{HI}, 344 \mathrm{HI}, 346 \mathrm{HI}, 350 \mathrm{HI}$, $357 \mathrm{HI}, 36 \mathrm{IHI}, 362 \mathrm{HI}, 368 \mathrm{HI}, 43 \mathrm{IHI}, 450 \mathrm{HI}, 45 \mathrm{IHI}, 452 \mathrm{HI}$, $459 \mathrm{HI} ; \mathrm{jGI} 2 \mathrm{I} 6 \mathrm{HI}, 346 \mathrm{HI}, 454 \mathrm{HI}$.

## Group D: History

GGR $336 \mathrm{HI}, 366 \mathrm{HI}$; HIS $3 \mathrm{I} 2 \mathrm{HI}, 3 \mathrm{I} 3 \mathrm{YI}, 322 \mathrm{YI}, 329 \mathrm{HI}, 332 \mathrm{HI}$, $339 \mathrm{YI}, 355 \mathrm{HI}, 360 \mathrm{YI}, 366 \mathrm{YI}, 370 \mathrm{HI}, 376 \mathrm{HI}, 385 \mathrm{YI}, 420 \mathrm{HI}$, $474 \mathrm{YI}, 484 \mathrm{HI}, \mathrm{INI} 428 \mathrm{HI}$.

## Group E: Politics

JPF 455YI; POL 22IHI, 304HI, 3IIYI, 3I2YI, 3I4YI, 3I7YI, $3 \mathrm{I} 8 \mathrm{HI}, 32 \mathrm{IHI}, 324 \mathrm{YI}, 333 \mathrm{YI}, 336 \mathrm{HI}, 337 \mathrm{YI}, 34 \mathrm{IHI}, 343 \mathrm{YI}$, $344 \mathrm{HI}, 349 \mathrm{YI}, 35 \mathrm{IYI}, 352 \mathrm{HI}, 356 \mathrm{YI}, 40 \mathrm{IHI}, 406 \mathrm{YI}, 4 \mathrm{I} 8 \mathrm{YI}$, $425 \mathrm{YI}, 436 \mathrm{YI}, 445 \mathrm{YI}, 447 \mathrm{YI}, 473 \mathrm{HI}, 474 \mathrm{HI}, 475 \mathrm{HI}, \mathrm{INI} 308 \mathrm{HI}$.

## Group F: Sociology

SOC 205YI, 207YI, 210YI, $218 \mathrm{YI}, 220 \mathrm{YI}, 243 \mathrm{HI}, 244 \mathrm{HI}$, $246 \mathrm{HI}, 247 \mathrm{HI}, 260 \mathrm{YI}, 270 \mathrm{HI}, 278 \mathrm{YI}, 30 \mathrm{YY}, 303 \mathrm{HI}, 304 \mathrm{HI}$, $306 \mathrm{YI}, 309 \mathrm{YI}, 3 \mathrm{IOHI}, 3 \mathrm{I} 2 \mathrm{YI}, 3 \mathrm{I} 7 \mathrm{YI}, 320 \mathrm{YI}, 330 \mathrm{YI}, 336 \mathrm{HI}$, $339 \mathrm{HI}, 344 \mathrm{YI}, 352 \mathrm{HI}, 354 \mathrm{HI}, 356 \mathrm{YI}, 358 \mathrm{HI}, 364 \mathrm{HI}, 365 \mathrm{YI}$, $366 \mathrm{HI}, 367 \mathrm{HI}, 369 \mathrm{YI}, 370 \mathrm{YI}, 382 \mathrm{YI}, 383 \mathrm{HI}, 385 \mathrm{HI}, 386 \mathrm{YI}$.

## Group G: Environment:

GGR $233 \mathrm{YI}, 256 \mathrm{HI}, 3 \mathrm{I} 4 \mathrm{HI}, 330 \mathrm{HI}, 33 \mathrm{IHI}, 332 \mathrm{HI}, 333 \mathrm{HI}$, $334 \mathrm{HI}, 335 \mathrm{HI}, 338 \mathrm{HI}, 393 \mathrm{HI}, 409 \mathrm{HI}, 4 \mathrm{I} 5 \mathrm{HI}, 435 \mathrm{HI}$; INI 309 HI, JGE 22 IYI, JAG 32 IHI, JGE 22 IYI, ENV $223 \mathrm{HI}, 236 \mathrm{YI}$, JIE 307 Y , ENV $320 \mathrm{YI}, 32 \mathrm{IYI}, 333 \mathrm{HI}, 335 \mathrm{HI}, 340 \mathrm{HI}, 34 \mathrm{IHI}$, $350 \mathrm{HI}, 420 \mathrm{Y}, 423 \mathrm{HI}, 424 \mathrm{HI}, 446 \mathrm{HI}$.

## Note:

Students may be able to substitute other courses offered by the faculty of Arts \& Science, other faculties, Mississauga, and Scarborough for courses listed here. Please consult the Program Director for more details.

## Urban Studies \& Sociology - See Sociology

## Writing and Rhetoric (Arts program)

For Program requirements and information, contact Program Director Cynthia Messenger, Innis College (416-978-6508 or cynthia.messenger@utoronto.ca).

## Minor Program:

This is a Type 2 program. See the Registration Handbook and Timetable for application procedures.

## Entrance Requirements:

Students who wish to be considered for enrolment in the Minor program must meet the following requirements. Please note that meeting the minimum GPA requirement does not guarantee admission:
I. Achieve a CGPA of at least 2.3 (any discipline).
2. Complete four full-course equivalents (any discipline).

Requirements for the Minor program: four full courses or their equivalent, as outlined below, including at least one 300/400level course. Note: No specialist or major degree is available in
this program.
I. $\quad 2.5 \mathrm{INI}$ writing courses.
2. 1.5 other full-course equivalents from groups $\mathrm{A}, \mathrm{B}$, or C below. Courses outside these lists may be approved by the Program Director.

## Courses For The Minor:

Note: Enrolment in all INI writing courses (except INI4I2YI) requires completion of 4 full-course equivalents and a CGPA of 2.3. Students do not have to be enrolled in the minor to take INI writing courses.

## Innis Writing Courses

INI 200Y, INI 203YI, 204YI, 300YI, $30 \mathrm{IHI}, 304 \mathrm{HI}, 305 \mathrm{HI}$, 3IIYI,INI4I2YI

## A. Critical Analysis and Reasoning

ARC235HI, 4I7HI; INI 204YI, 304HI; LIN48IHI; PHL 247HI, 275HI, PSY370HI;TRN I90YI, 200YI

## B. Workplace Writing and Media

ARC232HI; FAH443HI; HIS3I6HI, 482 HI ; INI $300 \mathrm{YI}, 30 \mathrm{IHI}$, 384 HI ; PHL295HI, POL475HI; PSY327HI; SMC 2I9YI, 228YI, 300 HI ; UNI22 IHI

## C. Language and Rhetoric

ANT253H, $329 \mathrm{Y}, 427 \mathrm{H}$; ENG 100 HI, IIOYI, $205 \mathrm{H} ; 285 \mathrm{H}$;
385H;INI200Y, INI 203YI, 305HI, 3 IIYI; 4I2Y; JAL328HI,
$355 \mathrm{HI} ;$ JPL3I5HI; LIN200HI, $20 \mathrm{IHI}, 203 \mathrm{HI}, 204 \mathrm{HI} ; \mathrm{VICI} 20 \mathrm{Y}$, $345 \mathrm{HI}, 350 \mathrm{Y}$; All Vic One Courses.

## Innis College Courses

Listed in this order:
Cinema Studies
Urban Studies
Writing and Rhetoric
Other Innis College courses

## Cinema Studies Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), INI
Cinema Studies courses are classified as HUMANITIES courses.
INIII5YI

## Introduction to

26L, 52P, 26T Film Study
Introduction to film analysis; concepts of film style and narrative. Topics include documentary, avant-garde, genres, authorship, ideology, and representation.
INI2I2YI
Film History
26L, 52P, 26T
An introduction to major phases of international film history from its origins to the present, including screenings and discussion of narrative films representative of film movements, technological innovations, and influential directors. Issues in the writing and reading of film history are examined.
Prerequisite: $\operatorname{INIII5Y|}$

## INI2I4YI

Film Theory
26L, 52P, 26T
A study of select classical and contemporary film theories, their medium-specific arguments, and their cultural and intellectual contexts. Investigations include the nature of film theorizing, formalist and realist traditions, first and second film semiologies,
apparatus theory, and debates specific to spectatorship and film viewing.
Prerequisite: $\operatorname{INIII5Y|}$

| INI224YI Filmmakers:The Personal 52L, 52P |  |
| :--- | :--- |
|  | Vision <br> (Formerly Authorship in Cinema) |

Close examination of the careers and works of four auteur directors in commercial film production. (Offered in alternate years)
INI225YI American Popular Film 52L, 52P Since 1970
Examination of the art of popular film in its social, political, and commercial contexts, through study of selected popular films from 1970 to the present. Various critical approaches, genres, and directors are included.
Exclusion: INI326YI
INI226HI Fantasy and Horror Film 52L, 52P
Study of fantasy and horror films with emphasis on literary background, political and social contexts and critical interpretations.

## INI227HI Science Fiction Film 52L, 26P

Study of science fiction film in its role as a commercial film genre, social allegory and speculation on technology and the future.
Exclusion: ENG238HI
INI322YI $\quad \begin{gathered}\text { Avant-Garde and } \\ \text { Experimental Film }\end{gathered} \quad$ 52L, 52P
Film experimentation in the context of modern art and poetry (Cubism, Dada-Surrealism) from the 1920s through the 1990s.
(Offered in alternate years)
Exclusion: INI322HI
Prerequisite: $\operatorname{INIII5YI}$
INI323YI Women and Representation 52L, 52P
Feminist film criticism from mid-sixties critiques of media stereotypes of women to current issues in feminist film theory. Films to be studied include mainstream narrative fiction and films by women directors:Von Sternberg, Godard, Sirk, Arzner, Dulac, Lupino, Von Trotta, Rainer, Akerman, Duras. (Offered in alternate years)
Prerequisite: INIII5YI/NEW260YI
INI324YI American Filmmaking in 26L, 52P, 26T the Studio Era
A study of filmmaking in the US once the studio system was in place; consideration of industrial, economic, ideological, and aesthetic dimensions of the American studio era. Topics include the primacy of classicism, the operations of the studio system (including censorship, labour relations, marketing, and star promotion), and the cultural function of American films. (Offered in alternate years)
Prerequisite: INII I5YI

## INI325YI Documentary Film 52L, 52P

A critical survey of documentary practice including newsreels, direct cinema, cinema verité, ethnographic, and various hybrid narrative forms, with emphasis on the rhetorical, aesthetic, and political dimensions of "the art of record." Topics include poetics, argument, and modes of address; evidence, authenticity, and persuasion; filmmaker/subject/audience nexus; historiography, hagiography, and memory; reflexive irony and performance. (Offered in alternate years)
Prerequisite: $\operatorname{INIII5YI}$

INI327YI Race and Representation 52L, 52P
Theories of cinematic representation emphasizing race, identity, and Diaspora, with an emphasis on post-colonial and critical race theories. Films include works from Africa and the black Diaspora, as well as selections from aboriginal and other diasporic communities. Films by Mambety, Julien, Dash, Cisse, Akomfrah, Moffat, Sembene. (Offered in alternate years) Prerequisite: INII I5YI
INI329YI Theories of Film Genres 26L, 52P, 26T and Filmic Narration
Study of theoretical and analytical models of film genres and narratology; structuralist, cognitive, and semiotic approaches to filmic narration. Genres to be studied include westerns, crime films, art cinema, fantasy, and horror. (Offered in alternate years) Prerequisite: $\operatorname{INII} 15 Y \mid$

INI330YI Contemporary Film Theory: 52L, 52P The Screen Revolution
Film theory since the early 1970s. Topics include the critique of realism, suture, spectatorship, genre, the cinematic apparatus, race, and queer cinema. Films are screened as illustrations of the theoretical texts:Welles, Sirk, Godard, Duras, Potter, Ottinger, Julien. (Offered in alternate years)
Exclusion: INI 425YI, 48IYI
Prerequisite: INI II5YI, 2I4YI
$\begin{array}{lll}\text { INI374HII } & \text { Problems in Film } & \text { 52L, 52P } \\ \text { 375HI } & \text { Authorship (I \& II) } & \end{array}$
Advanced study of problems in film authorship through the
intensive examination of one or more major filmmakers.
(Offered in alternate years)
Prerequisite: INII I5Y|
INI380YI Contemporary World Cinema $52 S$
An intensive survey of world cinema since 1970, from Africa, Asia, Australia, South and North America, and Europe. (Offered in alternate years)
Prerequisite: INII I5YI
INI38IHI Aspects of a National Cinema $52 S$
In-depth treatment of a national cinema in a seminar format.
(Offered in alternate years)
Prerequisite: INIII5Y|
INI382HI European Cinemas 26L, 26P
Comparative study of European film production and culture: inter-war and post-war developments; contemporary tendencies (co-production, continental unification, immigration). (Offered in alternate years)
Exclusion: INI382Y|
INI383HI The Origins of the Animation 26S, 26P Industry, 1900-1950: A
Technosocial History
An introduction to early animation, considering its vaudeville roots, its industrialization, and its emerging aesthetics and representational tropes. Examination of the early corpus of animation from 1900-1950 and in-depth study of the artistic, social and cultural mileux from which animation derived. (Offered in alternate years)
Prerequisite: INIII5YI, INI2I2Y.I

## INI384HI Critical Writing on Film (formerly INI384YI)

The practice of film criticism with concentration on film reviews and scholarly articles. The study of examples of such work is the focus of the seminars supplemented by practical
sessions involving process writing and collaborative editing.
(Offered in alternate years)
Exclusion: INI384YI, NEW304YI
Prerequisites: Any 2 courses from Group A (INIII5Y; 2I2Y; 214 Y ) and 2 additional Cinema Studies full course equivalents.
INI385YI Cinema in Canada 26L, 52P, 26T
Critical study of Canadian cinema from its inception to the present. (Offered in alternate years)
Exclusion: INI385HI; NEW 3IIHI
Prerequisite: INIII5YI

## INI386HI Quebec Cinema (formerly INI486HI)

The range of French-language filmmaking in Quebec within the context of efforts to establish a distinct national identity from the 1940s to the present day. (Offered in alternate years)
Exclusion: INI486HI/NEW3I2HI
Prerequisite: INIII5YI

## INI390YI Contemporary Chinese 52L, 52P Cinemas

Examination of contemporary Chinese films in their three production centres: the People's Republic of China, Taiwan, and Hong Kong. Production, commercial and aesthetic trends, and international reception; major auteurs and genres. Directors include Chen Kaige, Zang Yimou, Edward Yang, John Woo, and Wang Kar-wai. (Offered in alternate years)
Exclusion: INI390H
Prerequisite: INIII5YI
Recommended preparation: INI 2I2YI, 2I4YI
INI396Y I/ Special Topics in Cinema Studies TBA

| $397 \mathrm{HI} /$ |
| :--- |
| 398 HI |

## 398 HI

Seminars in special topics designed for specialist and major students in Cinema Studies.
Prerequisite: At least ten full-course equivalents, including INI
II5YI, 212 Y I, 214 Y I or permission of instructor.

## INI423HI Melodrama in Film <br> 26S, 26P

Intensive study of theoretical issues raised by melodrama,
including gender, class, and spectatorship; emotion and the nonrepresentational. Psychoanalytical and historical factors shaping
the "melodramatic imagination" are emphasized.
Exclusion: INI423YI
Prerequisite: At least ten full-course equivalents, including INI
$115 \mathrm{Y}|, 212 \mathrm{Y}|, 214 \mathrm{Y}$ I or permission of instructor.
INI426HI Film Comedy 26S, 26P
A study of international film comedy, including its historical development, and the difficulties that comedy poses for genre and auteur approaches.
Prerequisite: At least ten full-course equivalents, including INI
$115 \mathrm{YI}, 212 \mathrm{YI}, 214 \mathrm{Y}$ I or permission of instructor.

## INI428HI The Cinematic City

26S, 26P
Film's emergence from urban culture of the nineteenth century: the modern industrial city and the cinematic imagination between the world wars; the critical alignment of urbanism and the cinema.
Exclusion: $\mathrm{IN} / 32 \mathrm{IHI}$
Prerequisite: At least ten full-course equivalents, including INI
II5YI, 2I2YI, 2I4YI or permission of instructor.

INI429HI The Revolution Will/Will Not 26L,26P Be Televised
Examining the mediation of political struggle from 1964-1974, this course analyzes both how specific political issues were represented in popular media, and attempts to politicize and question representational regimes. Its primary focus will be cinematic and televisual, but by necessity it will also touch upon radio and the recording industry.
Prerequisite: At least ten full-course equivalents, including INI
II $5 \mathrm{Y} I, 212 \mathrm{Y}$ I, 214 Y I or permission of instructor.

## INI460HI

Film Noir
26S, 26P
Consideration of film noir's roots, its status as a genre, and its enduring appeal, the latter evidenced by continued critical interest and neo-noir offshoots.
Prerequisite: At least full-course equivalents, including INI
II $5 \mathrm{Y} \mathrm{I}, 212 \mathrm{Y}$ I, 214 Y I or permission of instructor.
INI46IHI Models of Film Analysis 26S, 26P
Advanced survey of a variety of approaches to the filmic text, including structuralist variants, textual analysis, and neoformalism.
Prerequisite:At least ten full-course equivalents, including INI II $5 \mathrm{Y} \mathrm{I}, 212 \mathrm{Y}$ I, 214 Y I or permission of instructor.
INI462HI Theory, History and 26S, 26P German Cinema
Historiographic and theoretical issues raised by German Cinema.
Prerequisite: At least ten full-course equivalents, including INI II5YI, 212 Y I, 214 Y I or permission of instructor.

## INI463HI <br> Early Cinema <br> 26S, 26P

Investigation of film from the beginnings of the medium until the advent of the feature film in the mid-teens: early cinema's technological, formal, economic, and cultural dimensions; questions of audience composition, spectatorial address, and intermediality.
Prerequisite:At least ten full-course equivalents, including INI
II5YI, 212 Y I, 214 Y I or permission of instructor.
INI465HI 26S, 26P
How technology influences the operations and study of cinema. Includes technology's relationship to realism, apparatus theory, and cinematic style; study of widescreen, sound, colour, and emergent technologies.
Exclusion: INI483HI
Prerequisite: At least ten full-course equivalents, including
INIII5YI, 2I2YI, 214YI or permission of instructor.
INI475HI Advanced Studies in Cinema: 26S
Corporeality and Cinema
Films regularly offer up human bodies as both sources of visual fascination and texts expressive of deeper truths. This course examines the ways cinema constructs bodies so as to produce affect and bear meaning In a variety of traditions and genres, from melodrama to action films, ethnographic cinema to pornography.
Prerequisite: INI II5Y, INI 2I4Y, INI 2 I2Y
INI476YI/ Independent Studies in Cinema TBA
477HI/

## 477HI/

## 478HI

Independent research projects devised by students and
supervised by Cinema Studies faculty. Open to advanced
Specialist and Major students in the Program. Applications
must be submitted to the Program Office by June I for a Fall
course, by November I for a Spring Course, and by April I for a summer course.
Prerequisite: At least ten full-course equivalents, including INI II5YI, 2I2YI, 2I4YI or permission of the Cinema Studies Committee

| INI $482 \mathrm{YI} / \quad$ Advanced Studies in Cinema | TBA |
| :--- | :--- | :--- |
| $483 \mathrm{HI} /$ |  |
| 484 HI |  |

Seminars in special topics designed for advanced specialist and major students in Cinema Studies.
Prerequisite: At least ten full-course equivalents, including INI $1|5 \mathrm{Y}|, 212 \mathrm{Y} \mid, 214 \mathrm{Y}$ I or permission of instructor.

## Urban Studies Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), all INI Urban Studies courses are classified as SOCIAL SCIENCE courses.

## INI235Y I A Multidisciplinary Introduction to 52L Urban Studies

Explores the culture, thoughts, institutions, policies, and processes shaping our urban areas. Emphasis is placed on understanding the problems and prospects associated with growth and change in the city. Disciplines used to provide various interpretations include Economics, Environmental Studies, Geography, History, Political Science, Sociology, Urban Design and Planning.
Prerequisite: Four courses with at least two from: ECOIOOYI, ECOI05YI, GGRI24YI, a 100 -level POL course or POL2I4YI, SOCIOIYI or permission of the instructor
INI306YI Urban Experiential Learning in Toronto \& the GTA
A method of studying city issues that combines readings, seminar discussions, and lectures with an internship in the office of a municipal politician, local government, or non-profit research/community organization. Readings focus on community development, urban planning, economic development and local government. Students must fill out a ballot for the course (available from the College Secretary) by June 30th. Enrolment in this course is competitive and at the discretion of Dr. Shauna Brail (Director, Urban Studies Placement Program).
Prerequisite: INI235YI, enrolment in minor, major or specialist programs in Urban Studies or permission of instructor
INI335YI The Changing Dynamics of Cities 26L
IN this course, students develop an understanding of the city as a dynamic organism that is constantly changing as a result of economic, social and political pressure. The course material is organized around a series of industry cluster case studies including: automotive, culture, information technology and health care. The emphasis of the course will be on the extension and refinement of theories and arguments developed in INI235Y.
Prerequisite: INI235Y. Priority is given to students enrolled in the Urban Studies Minor, Major, or Specialist Programs. However, consideration may be given to students with suitable course background as determined by the Program Director. Note: INI335Y cannot be taken concurrently with INI235Y.)

## JIE307YI Urban Sustainability

52L, 26P (formerly INI307YI)
This course critically examines the concept of urban sustainability in theory and application. Case studies of ongoing urban sustainability programs in the developed world help students assess the successes and failures of these programs. The course also examines the current state of research and implementation efforts toward urban sustainability. Prerequisite: One of the following: JEG22IY/JIE222YI and enrolment in a Centre for Environment program OR INI235YI OR permission of the instructor (particularly for students who have completed JEG222YI/JIE222YI/ GGR233YI/POL209YI/SOC205YI/260YI)
Exclusion: INI307Y I

## This is a Social Science course

## INI308HI The City of Toronto <br> 52L, 26P

Examines the struggle to create a civic society within
Toronto as it becomes a global city. Sample topics include: the neighbourhood and the city, the outer city and the urban region, planning and sprawl, public and private transportation, the natural and the urban environment, housing and homelessness, levels of government, civic culture and multiculturalism.
Prerequisite: One of the following: a 100 level Political Science, GGRI24YI, INI235YI, SOCIOIYI, or permission of the instructor.
INI309HI Urban Infrastructure 52L, 26P
Examines the importance of infrastructure to urban societies from a technical, environmental, political, historical, and social perspective. Students study energy and communications systems, transportation, water, solid waste disposal, parks and recreation facilities, schools, hospitals, and community facilities and services. Key issues include growth management, financing and maintenance, public-private partnerships, and international development.
Prerequisite: One of the following: INI235YI or permission of the instructor.
INI430YI Urban Policy Seminar 52S
Examines contemporary urban problems and policy issues through seminar discussions, readings and field research. Emphasis is placed on developing an interdisciplinary approach to urban problem solving.
Prerequisite: INI235Y, enrolment in a minor, major or specialist program in Urban Studies, or permission of instructor.
INI43 IY I/ Special Topics in Urban Studies TBA

## 432HI/

433HI
From time to time, the Urban Studies Program organizes community outreach and information sessions. At the discretion of the Director, students may enroll in a special topics course and investigate these issues more deeply under the supervision of an agreeable faculty member. Proposals including a letter from an agreeable faculty member should be submitted to the Director by June I for a Fall or Year-long course, or by November I for a Spring course.
Prerequisite: Enrolment in a major or specialist program in Urban Studies.
Recommended Preparation: INI235Y, INI306Y.

## INI434YI/ Independent Research in <br> 435HI/ Urban Studies <br> 436HI

Designed to allow strong students in the Major and Specialist programs to extend a piece of urban research under the supervision of a faculty member from any aligned departments. Choice of ' $H$ ' or ' $Y$ ' session pursuant to the scope of the research envisioned, the proposed supervisor's assessment of depth of the inquiry, and the approval of the program director. Proposals including a letter from an agreeable supervisor should be submitted to the program director by Junel for a Fall or Year session course and by November I for a Spring session course.
Prerequisite: Enrolment in the Urban Studies Major or Specialist Program
Recommended Preparation: INI235YI, INI306YI
JGI216HI Urbanization and Global Change 26L
Examines the process of globalization, mass urbanization and economic change taking place in cities around the world. Includes interdisciplinary exploration of the industrial and economic changes that have ensued as a result of globalization, as well as social and cultural manifestations associated with the emergence of global cities.
Recommended Preparation: GGRI24YI

## JGI346HI The Urban Planning Process

Urban planning mechanisms, the legislation, and its goals.
Planning issues from negotiation to legislation to appeal. Urban and regional problems facing planners in Ontario compared with those emerging in other provinces; Ontario's legislative solutions contrasted with those developed elsewhere. (Given by the Department of Geography and Innis College)
Recommended Preparation: GGRI24YI

## JGI454HI The Role of the Planner: Making 26L a Difference

This course will focus on the role of a planning practitioner in contemporary society using a wealth of examples drawn from recent issues and debates in Canadian cities and regions. The course will walk students through the demands made of planners in terms of both technical expertise as well as political necessity and ask them to think actively about how to prepare for the extraordinary growth of cities during the next century. Examples of issues that will be discussed in some detail include the myths surrounding the city vs. the suburbs, the creativity and passion involved in planning work and the new City of Toronto Act.
Prerequisite: 15 credits, 5.0 of which must be GGR/INI Urban Studies

## Writing and Rhetoric Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), Writing and Rhetoric courses are classified as HUMANITIES courses, except for $\mathrm{INI} 300 \mathrm{YI}, 30 \mathrm{IHI}, 304 \mathrm{H}, 405 \mathrm{YI} / 406 \mathrm{HI} / 407 \mathrm{HI}$, and $408 \mathrm{YI} / 409 \mathrm{HI} / 4 \mathrm{IOHI}$ which are classified as both HUMANITIES and SOCIAL SCIENCE courses.

## INI200YI Writing Essays and Reports 78S

Teaches the fundamentals of essay and report writing within an interdisciplinary context. Includes the history of the essay and its various rhetorical modes (narrative, descriptive, expository, argumentative), with a focus on the academic essay. Research
and workplace reports are examined in terms of purpose, audience, and persuasive strategies.
Prerequisite: Completion of 4.0 full-course equivalents and CGPA of 2.3 or higher.
INI203YI Foundations of Written Discourse
Designed to teach students to write persuasively and to recognize persuasive strategies at work in writing they analyze.
Classical rhetorical terms, elements of style, and modes of argument are central to the course. Assignments include a rhetorical analysis, in-class essays, and a term essay. Readings include prose from a variety of disciplines, excluding fiction and poetry. Students who enrol in the course must demonstrate competence in the English language.
Prerequisite: Completion of 4.0 full-course equivalents and
CGPA of 2.3 or higher.
INI204YI The Academic Writing Process 78S
The strategy necessary to write complete pieces of nonfictional prose, especially exposition and argument. Concepts of planning and organization include: focusing, research, outlining, patterns of logical development, introduction, paragraph development, conclusion, argumentation and persuasion, documentation, and revision. Students for whom English is a second language should have an advanced level of fluency in English before enrolling.
Prerequisite: Completion of 4.0 full-course equivalents and CGPA of 2.3 or higher.
INI300Y I Strategic Writing in Business 78S and the Professions: Theory and Practice
Aims to teach students to recognize the rhetoric of the professional workplace and to communicate strategically and ethically using written and oral discourse appropriate to business, government, and not-for-profit organizations. Case study analysis using ethical reasoning models is a central component of the course.
Prerequisite: Completion of 4.0 full-course equivalents and CGPA of 2.3 or higher.

| INI30IHI | Contemporary Issues and Written <br> Discourse: Rhetoric and the Print | $39 S$ |
| :--- | :--- | :--- |

Examines how the language and rhetoric of print media shape social issues. Rhetorical strategies at work in the media reporting of such controversial issues as international crises and military actions are examined. The construction of the columnist's persona and the role of editorials are also examined. Prerequisite: Completion of 4.0 full-course equivalents and CGPA of 2.3 or higher.
INI304HI Critical Thinking and Inquiry in 26L Written Communication
This seminar in critical reading, analysis, and writing focuses on the nature, the evaluation, and the use and abuse of evidence in the process of formulating and supporting an argument. The case study method will be employed to assess the level of authority, credibility, and objectivity evident in public discourse, official sources, and academic inquiry.
Prerequisite: Completion of 4.0 full-course equivalents and CGPA of 2.3 or higher.

INI305HI Word and Image in Modern 39S Writing
The rhetorical term Ekphrasis, which refers to writing that is about visual art, is central in the examination of the persuasive

## Innis College

power of the "conversation" or discourse that is produced when the written word attempts the evocation of visual images. Course readings will include ekphrastic texts drawn from several disciplines and genres: journalism, informal essays, poetry, and scholarly writing.
Prerequisite: Completion of 4.0 full-course equivalents and CGPA of 2.3 or higher.

## INI3 I IYI Seminar in Creative Writing 78S

This workshop course examines methodological approaches to literary fiction from the perspective of the creator. Through course readings, discussion, and creative writing assignments, student writers will learn how prose writers combine stylistic techniques, point-of-view, setting, character, scenes, and structure to produce literary effects.
Prerequisite: Experience or strong interest in writing fiction. 4.0 full-course equivalents, fluency in English. CPA 2.3 minimum.

| INI405YI/ Independent Studies in Writing | TBA |  |
| :--- | :--- | :--- |
| $406 \mathrm{HI} /$ | and Rhetoric |  |
| 407 HI |  |  |

Independent research projects devised by students and supervised by the Writing and Rhetoric staff. Open only to students who are completing the Minor Program in Writing and Rhetoric Program.
Applications should be submitted to the Program Director by June
I for a Fall session course or by November I for a Spring session

## course.

Prerequisite: At least ten full-course equivalents including INI 203 YI or 204 YI and INI 300 Y or 30 IH or 304 H or 305 H or 3IIY; permission of Program Director

## INI408Y I/ Special Topics in Writing TBA

 409HI/ and Rhetoric
## 410 HI

Seminars in special topics designed for students who are completing the Minor Program in Writing, Rhetoric, and Critical Analysis.
Prerequisite: At least ten full-course equivalents including INI 203 YI or 204 YI and INI 300 Y or 30 IH or 304 H or 305 H or 3IIY; or permission of instructor
INI4I2YI Prose Style Across Genres 39L, 39S

Focuses on methods for analyzing how various aspects of style shape the meaning of texts in such genres as fiction, biography, oratory, legal argument, science writing, and government reports. Also considers historical and theoretical perspectives on style. Requires a research project, which for qualified students may include a translation.
Prerequisite: IO full course equivalents; CGPA of 2.3 or higher Recommended Preparation: INI 200Y, INI203YI or 204 Y I

## Other Innis College Courses

INI299YI Research Opportunity Program
Credit course for supervised participation in faculty research project. See page 47 for details.

# International Relations: see Trinity College 

## Faculty

Professors Emeriti
M. Ciavolella, Ph D
A. Franceschetti, Dott in Lett, Ph D
M. Kuitunen, Dott in Lett, MA, Phil M,Ufficiale Ord. Merit It. Rep.
J.A. Molinaro, MA, Ph D, FRSC
M.W. Ukas, MA, Ph D

## Professor and Chair of the Department <br> D. Pietropaolo, MA, Ph D (SM) <br> Commend. Rep. It

Associate Professor and Associate Chair
S. Bancheri, MA, PhD (University of Toronto Mississauga)

## Professors

R. Capozzi, MA, Ph D
K. Eisenbichler, MA, Ph D (V)
F. Guardiani, Dott in Lett, MA, Ph D (SM)
M. Lettieri, MA, Ph D (University of Toronto Mississauga) O.L. Pugliese, MA, Ph D (V)

## Associate Professors

M. Gieri, Dott in Lett, Ph D (I)
L. Somigli, Dott in Lett, Ph D

## Senior Lecturers

R. Longo Lavorato, MA, Ph D
B. Magliocchetti, MA
M. Pasquarelli-Clivio, MA, Ph D (SM)
M. Scarci, MA, Ph D
A. Urbancic, B Ed, MA, Ph D (V)

To study Italian is not only to acquire a language, but also to study a rich literature and many-sided culture which have played an important, and sometimes dominant, role in Western civilization. For Canadians, the Italian contribution bears a special significance: the vast influx of Italians has brought changes in our way of life and a living presence to reinforce traditional Italian influences, thus enriching the meaning of the term Canadian.

Italian combines well with other modern languages and literatures, and other programs such as European Studies, Literary Studies, and Mediaeval and Renaissance Studies, but is by no means restricted to these. Students may choose from Specialist, Major and Minor programs in Italian Studies.
Italian courses are offered for beginners as well for students with an Italian background. Oral practice is included in all language courses. Students well qualified in the Italian language may be excused from language courses in First Year (please see the Undergraduate Coordinator). 300- and 400-series courses are available to qualified third- and fourth-year students and may be taken concurrently. These courses offer a wide range of options in language, literature and linguistics. Except for specialists and majors, it is not necessary to take language courses in the 300 - and 400 -series, but language courses may be taken without literature courses. In addition, there are courses in culture, cinema and theatre that have no language requirement.

In conjunction with Woodsworth College, ITA courses may be taken in Italy at the University of Siena during July and August. A number of bursaries are available. Students may apply to take their Third Year in Italy under the Study Elsewhere program in conjunction with the International Student Exchange Office.

Undergraduate Coordinator: 416-926-2338
Email: italian.undergrad@utoronto.ca
Enquiries:
100 St. Joseph St. Room 204 (4I6-926-2345)
Web site:
http://www.utoronto.ca/italian/

## Italian Studies Programs

Enrolment in the Italian Studies programs requires the completion of four courses; no minimum GPA required.

## Italian (Arts program)

## Specialist program:

(10 full courses or their equivalent, including at least one full course equivalent at the 400 level)
I. ITA $100 \mathrm{Y} I / I 0 I Y I / 102 \mathrm{YI} / I I 0 Y \mathrm{I} /(133 \mathrm{HI}, 134 \mathrm{HI}) / 152 \mathrm{Y}$ I
2. One of the following series of courses.
a. ITA $250 \mathrm{YI},(343 \mathrm{HI}, 344 \mathrm{HI})$ (Prerequisite ITA

I00YI/I02YI(I33HI, I34HI))
b. ITA 25 IYI, $(354 \mathrm{HI}, 355 \mathrm{HI})$ (Prerequisite ITA IOIYI/IIOYI)
c. ITA $252 \mathrm{YI},(364 \mathrm{HI}, 365 \mathrm{HI})$ (Prerequisite ITA I52YI)
3. Two 200 -series ITA courses including ITA $250 \mathrm{YI} / 25 \mathrm{IYI} /$ 252YI
4. Two full courses or equivalent at the $300+$ level in literature. Students must complete at least ONE half course in THREE separate periods of Italian literature.
5. Four additional ITA $300+$ series courses with at least one full course equivalent at the 400 -level..
6. No more than TWO full courses or equivalent where the language of instruction is English may be counted towards the Specialist Program.

## Major program:

(7 full courses or their equivalent)
I. ITA $100 Y \mathrm{I} / I 0 I \mathrm{YI} / I 02 \mathrm{YI} / I I O Y I /(I 33 \mathrm{HI}, I 34 \mathrm{HI}) / I 52 \mathrm{YI}$
2. Two 200 -series courses including ITA $250 \mathrm{YI} / 25 \mathrm{I} \mathrm{YI} / 252 \mathrm{Y}$ I or JFI 225 Y I
3. One full course or equivalent at the $300+$ level in literature
4. Three additional ITA $300+$ series courses (ex-beginners must include ITA 343 HI and 344 HI in their selection)

## Minor program:

(4 full courses or their equivalent)
Any 4 ITA courses (at least one full course equivalent must be a 300/400-level literature course)

## Italian Culture and Communication Studies (Arts program)

## Minor program:

4 full courses (or equivalent) including ONE full course equivalent from any of the following:
ITA $340 \mathrm{HI} / 34 \mathrm{IHI} / 44 \mathrm{IHI} / 347 \mathrm{HI} / 360 \mathrm{HI} / 36 \mathrm{IHI} / 363 \mathrm{HI} /$
$430 \mathrm{HI} / 356 \mathrm{YI} / 357 \mathrm{YI} / 358 \mathrm{YI} / 359 \mathrm{YI} / 37 \mathrm{IHI} / 372 \mathrm{HI} / 385 \mathrm{HI} /$ $47 \mathrm{IHI} / 472 \mathrm{HI} / 473 \mathrm{HI}$

## Second Language Learning (Italian) (Arts program)

## Major program:

(7 full courses or their equivalent)
I. ITA IOOYI/IOIYI/IIOYI/(I33HI, I34HI) (all with minimum 73\%)/I52YI
2. JFI 225YI
3. ITA $250 \mathrm{YI} / 25 \mathrm{IYI} / 252 \mathrm{YI} / 253 \mathrm{Y} \mathrm{I}$
4. One full course or equivalent at the 300+ level in literature
5. At least one full-course equivalent from: ITA $360 \mathrm{HI}, 36 \mathrm{IHI}$, $363 \mathrm{HI}, 430 \mathrm{HI}$
6. Two additional ITA 300/400-series courses

## See also Modern Languages and Literatures; Linguistics and Languages; Cinema Studies (listed with Innis College); Drama; European Studies; Renaissance Studies (listed with Victoria College); Women and Gender Studies

## Italian Studies Courses

For Distribution Requirement purposes (see page 27), all ITA courses are classified as HUMANITIES courses.

## HUMI99HI/YI First Year Seminar

Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course; see page 47.

## Note

## Guidelines for the selection of first-year language

 courses:ITAI52YI: for students who have completed OAC/4U Italian at the high school level (or equivalent).

ITAIOIYI: for students who have some passive knowledge of Italian (or an Italian dialect) or some secondary school training in Italian (but not at the senior level OAC/4U).
ITAIOOYI: for students who have neither passive knowledge nor any secondary school training in Italian.

Students with an adequate knowledge of Italian may substitute for the language courses and half-courses in the First and Second years another course or half-course, subject to the permission of the Department. The Department reserves the right to place students in the language course appropriate to their level of language skill.

ITAIOOYI Italian Language for Beginners 78S
An introduction to the main elements of the Italian language.
The development of speaking, reading, and writing skills. Introduction to linguistic analysis of literary prose excerpts. Exclusion: Grade IO Italian/ITAIOIYI/IO2YI/IIOYI/(I33HI, $134 \mathrm{HI}) / 142 \mathrm{YI} / 152 \mathrm{YI}$ (Not open to students with a knowledge, however passive, of an Italian dialect)

ITAIOIYI Elementary Italian Language 78S
Main elements of Italian grammar for students who have some passive knowledge of Italian or an Italian dialect or some secondary school training in Italian (but not at the senior OAC/4U level). Introduction to linguistic analysis of literary prose excerpts.
Exclusion: OAC/4U Italian/ ITAI00YI/I02YI/IIOYI/(I33HI, I34HI)/I42YI/I52YI

ITAI02YI Italian for the Arts 78S
An introduction to Italian, both spoken and written, with special emphasis on lexicon and structures useful to students in the Arts.
Exclusion: Grade 10 Italian/ITAIOOYI/IOIYI/IIOYI/(I33HI, I34HI)/I42YI/I52YI

ITAI35YO Conversation and Culture:
An Introduction to Italian
The course is designed to introduce students to Italian grammar and develop basic oral and comprehension skills. Elements of Italian culture, past and present, are also examined in the context of language and communication. To select the appropriate second-year follow-up course, students are asked to contact the Undergraduate Coordinator. (Offered in Siena only)
ITAI42YI Intensive Language Practice 78S
This is a course designed for students who wish to maintain and improve their general knowledge of Italian without wishing to specialize.Acquiring the ability to communicate effectively in a variety of situations is a priority, while less emphasis is placed on the traditional teaching of grammar and on essay writing. This course counts toward the minor programs only. Exclusion: ITAIOOYI/IOIYI/I02YI/IIOYI/(I33HI, I34HI)/ I52YI
Prerequisite: Italian OAC/ 4 U or permission of Department
ITAI52YI Language Practice 78
A review of grammar, the writing of short compositions, and oral practice. Linguistic analysis based on readings of contemporary literary texts.
Exclusion: ITAIOOYI/IOIYI/I02YI/IIOYI/(I33HI, I34HI)/ I42YI
Prerequisite: Italian OAC/4 U or permission of Department.

## ITA2IOYI Contemporary Italy 52S

An analysis of literary, social and artistic movements, whose aim is to better understand the conditions that prevail in modern Italy. This course includes a component designed to introduce students to methods of scholarly research appropriate to the field. (Given in English)
ITA220HI Introduction to Italian 26L Literature: Prose
Reading of selections of Italian prose works, with emphasis on linguistic and stylistic features. Texts to be read in Italian; both English and Italian will be used as language of instruction, as appropriate. This course includes a component designed
to introduce students to methods of scholarly research appropriate to the field.
Prerequisite: ITAIOOYI/IOIYI/I52YI

## ITA22IHI Introduction to Italian Literature: Poetry <br> Reading of selections of Italian poetry, with emphasis on linguistic and stylistic features. Texts to be read in Italian; both English and Italian will be used as language of instruction, as appropriate. This course includes a component designed to introduce students to methods of scholarly research appropriate to the field. <br> Prerequisite: Ita $100 \mathrm{Y} / / / 0|\mathrm{Y}| / / 52 \mathrm{Y} \mid$

## JFI225YI Second Language Learning

A theoretical and practical consideration of the ways we learn a second language, with a historical overview and critical evaluation of the various methodologies that have been developed; the role of cultural studies in language learning, practical evaluation and development of syllabus, course and textbook materials. This course includes a component designed to introduce students to methods of scholarly research appropriate to the field.
Prerequisite: FSLI6IYI(73\%)/I8IYI/ITAIOOYI/IOIYI/I02YI/
IIOYI/(I33HI, I34HI) (all with a minimum of $73 \%) / I 52 \mathrm{YI}$

## ITA233YI Ethnicity and Mainstream Italian 52L

 Canadian CultureAn examination of the Italian presence in Canada from the time of John Cabot (Giovanni Caboto) to the present through an analysis of literary and other texts and a consideration of sociological and linguistic phenomena. This course includes a component designed to introduce students to methods of scholarly research appropriate to the field. (Given in English)

## ITA235YO Conversation and Culture: Intermediate Italian Intensive Oral Practice

This course is designed to enhance students' oral proficiency in Italian, improve listening and reading comprehension and develop a broad lexical base for more effective communicating skills. Elements of Italian culture are also examined in the context of language and communication through a series of topical readings which form the basis of discussion. (Offered in Siena only)
Exclusion: ITA252YI (and/or higher)
Prerequisite: ITAI00/I0I/I02/(I33HI,I34HI)/I35YI/I42/I52 or permission of Department.

## ITA240YI Italian Cinema 52L, 78P

An overview of Italian cinema from its early days to the present, which also offers a survey of Italian 20th Century history and culture. The course features films by masters Rossellini, DeSica, Fellini, Antonioni, Bertolucci, Pasolini and works by younger filmmakers, such as Academy Award winners Tornatore, Salvatores and Benigni. This course includes a component designed to introduce students to methods of scholarly research appropriate to the field.
The course is given in English and all films shown have English subtitles.

ITA245YI Italian Culture \& Civilization 26L, 26T
The main elements of Italian civilization from the time of Dante until the present in literature, art, and thought with reference to political history where appropriate. This course includes a component designed to introduce students to methods of scholarly research appropriate to the field. (Given in English) Exclusion: ITA $246 \mathrm{HI} / 247 \mathrm{HI} / 248 \mathrm{YI} /(356 / 357 \mathrm{YI}) /(358 / 359 \mathrm{YI})$

## ITA249HI Italians in China: From Marco

## Polo to Matteo Ricci

The course focuses on two historical encounters of Italian civilization with imperial China: One made possible by the immensely popular book, II Milione, an account of several years of Asian travels by the Venetian merchant Marco Polo (12451324), the other by the writings by Matteo Ricci (I552-I6I0) and other Jesuits, Catholic Missionaries. This course includes a component designed to introduce students to methods of scholarly research appropriate to the field. (Given in English)
ITA250YI Intermediate Italian $78 \mathbf{S}$
Grammar review, readings of Italian authors and oral practice to enhance comprehension and expressive skills.
Exclusion: ITA I 52 Y I/ 25 IYI/252YI/253YI (Not open to students with a knowledge of an Italian dialect)
Prerequisite: ITAI00YI/I02YI/(133HI, I34HI)
ITA25 IYI Intermediate Italian II $78 \mathbf{8}$
A review of Italian grammar, readings of Italian authors and one hour of oral practice.
Exclusion: ITAI52YI/250YI/252YI/253YI
Prerequisite: ITAIOIYI/IIOYI/(I33HI,I34HI) or permission of department.
ITA252YI Written and Oral Expression 78S in Italian
A study of fundamental grammatical structures with special emphasis on vocabulary and syntax. Some attention is paid to stylistics. Linguistic analysis of literary texts. One hour a week is devoted to oral practice.
Exclusion: ITA250YI/25IYI/253YI
Prerequisite: ITAI52YI
ITA253YI Italian for Business Communication 78S
A review of Italian grammar. Development of oral and written skills, especially as they pertain to the world of business and

## finance.

Exclusion: ITA250YI/25IYI/252YI
Prerequisite: A first-year ITA language course

## ITA27IYI Translating I 26L, 26T

An introduction to the problems of translation from English into Italian and Italian into English. Specific treatment of common difficulties and extensive exercises.
Prerequisite: Permission of Department

## ITA299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.
ITA300HI History of Italian Literature: 26L Middle Ages and Renaissance
This course provides a comprehensive view of Italian literature from its beginnings to the Renaissance, by focusing on the major authors. This course includes a component designed to enhance students' research experience.
Exclusion: ITA300YI
Prerequisite: ITA250YI/25IYI/252YI/253YI
ITA30IHI History of Italian Literature: 26L

> Baroque to Contemporary

This course provides a comprehensive view of Italian literature from the Baroque period to the present day, by focusing on the major authors. This course includes a component designed to enhance students' research experience.
Exclusion: ITA300YI
Prerequisite: ITA 250 Y I/25 IYI/252YI/253YI

ITA3IOHI The 'Journey' in the 19th Century 26L The course illustrates Italy's contribution to the history of the trope during a time when countries became increasingly interdependent and conscious of each other's cultures. Through literary and social analysis the course traces the most vital aspects of the journey motif. This course includes a component designed to enhance students' research experience.
Prerequisite: ITA $250 \mathrm{Y} \mathrm{I} / 25 \mathrm{IYI} / 252 \mathrm{Y} \mathrm{I} / 253 \mathrm{Y} \mathrm{I}$

## ITA3IIHI Mediaeval Italian Literature 26L

 in Translation: DanteA study of the Vita Nuova and of the Divine Comedy within the literary and cultural context of the Middle Ages.
This course includes a component designed to enhance students' research experience. (Given in English) Exclusion: ITA $320 \mathrm{YI} / 32 \mathrm{IYI} / 320 \mathrm{HI} / 32 \mathrm{IHI}$

ITA3I2HI Mediaeval Italian Literature in Translation: Petrarch and Boccaccio
A study of the Petrarch's Canzoniere and of Boccaccio's Decameron considered in relation to the later Middle Ages. This course includes a component designed to enhance students' research experience. (Given in English) Exclusion: ITA $325 \mathrm{HI} / 427 \mathrm{HI}$

## ITA320HI Dante:Vita Nuova and Divina Commedia (Inferno)

Dante's poetry and great Christian epic of conversion explode with the passions of this world. This course focuses on intertextual and rhetorical strategies used to fashion his complex vision of contemporary society within the framework of providential history. This course includes a component designed to enhance students' research experience. Exclusion: ITA3IIHI/320Y|
Prerequisite: ITA $250 \mathrm{YI} / 25 \mathrm{IYI} / 252 \mathrm{YI} / 253 \mathrm{Y} \mathrm{I}$

## ITA32IHI Dante: Divina Commedia (Purgatorio and Paradiso)

A continuation of ITA 320 HI , this course examines the Purgatorio and the Paradiso in the context of Dante's vision of contemporary society. This course includes a component designed to enhance students' research experience.
Exclusion: ITA3I IH/320Y
Prerequisite: ITA320HI
ITA325HI Themes and Forms of the Lyric 26L Tradition from Petrarch to Tasso.
A comprehensive view of the Italian lyric tradition focusing on the distinctive elements of the genre, from the establishment of the canon with Petrarch to its amplification with Tasso. This course includes a component designed to enhance students' research experience.
Exclusion: ITA325YI/ITA3I2HI
Prerequisite: ITA $250 \mathrm{Y} / / 25 \mathrm{IYI} / 252 \mathrm{YI} / 253 \mathrm{Y} \mathrm{I}$

## ITA326HI Themes and Forms of the Lyric Tradition from Late Renaissance to 20th Century

A chronological review of the forms and themes of the lyric tradition from Marino, who revised the genre inherited from the Petrarchists and Tasso, to the numerous variations of the genre culminating in the love poetry of D'Annunzio.
This course includes a component designed to enhance students' research experience.
Exclusion: ITA325YI
Prerequisite: ITA $250 \mathrm{Y} \mathrm{I} / 25 \mathrm{IYI} / 252 \mathrm{YI} / 253 \mathrm{Y} \mathrm{I}$

ITA330HI The Christian 'Epic' 26L
Italy's foremost writers' conscious attempt to write the great representative ("epic") work of their age: this course explores their struggle to find the appropriate language, style, and genre to express their vision of history. This course includes a component designed to enhance students' research experience. Exclusion: ITA330YI
Prerequisite: ITA250YI/25IYI/252YI/253YI
ITA332HI Love in the Renaissance 26L
An exploration of the theme of love in the Renaissance and its development in a variety of literary forms. Analysis of treatises, poetry, short stories and letters with the purpose of examining intertextuality and the practice of imitation, as well as the social and political aspects of love, such as marriage, women's position in society, homosexuality and other issues. This course includes a component designed to enhance students' research experience. (Given in English)
Exclusion: ITA345HI

## ITA334HI Italian Canadian Literature I: I3L, I3T Life in a New World

Works by first- and second-generation authors of Italian background. Among the themes explored: Italians as "pioneers", the Italian perception of Canada, the immigrant experience, the immigrants' encounter with a new world, their sense of discovery and the process of cultural adaptation. This course includes a component designed to enhance students' research experience. (Texts available in both Italian and English.) (Given in English)
ITA340HI Italian Neorealist Cinema I 26L, 39P
An analysis of the neorealist period in Italian cinema, and its relation to the political and social climate of post-war Italy. Screenings include selections from the major exponents of Italian neorealism: Rossellini, DeSica, and Visconti, among others. This course includes a component designed to enhance students' research experience. (Given in English)
Exclusion: ITA340Y
Recommended preparation: ITA240YI
ITA34IH Italian Neorealist Cinema II 26L,39P
The evolution of Italian cinematic neorealism and its historical heritage is examined in the early films of Fellini, Antonioni,
Pasolini and others. This course includes a component designed to enhance students' research experience. (Given in English)

## Exclusion: ITA340Y

Prerequisite: ITA340HI or permission of Department.
VIC34IHI The Self and Society in the Renaissance See Victoria College Courses

VIC343YI Sex and Gender in the Renaissance
See Victoria College Courses
VIC344HI Renaissance Narrative
See Victoria College Courses
ITA343HI Language Practice I
Discussion of problems of grammar and composition with special emphasis on the noun phrase. Language analysis based on readings of Italian authors. One hour a week of oral practice.
This course includes a component designed to enhance
students' research experience.
Exclusion: ITA $252 \mathrm{YI} / 350 \mathrm{YI} / 35 \mathrm{IYI} / 352 \mathrm{YI} / 353 \mathrm{YI} /$
$(354 \mathrm{HI}, 355 \mathrm{HI}) /(364 \mathrm{HI}, 365 \mathrm{HI})$
Prerequisite: ITA250YI/253YI

ITA344HI Language Practice II
Discussion of problems of grammar and composition with special emphasis on the verb phrase. Language analysis based on readings of Italian authors. One hour a week of oral practice.
This course includes a component designed to enhance students' research experience.
Exclusion: ITA $252 \mathrm{YI} / 350 \mathrm{YI} / 35 \mathrm{IYI} / 352 \mathrm{YI} / 353 \mathrm{YI} /(354 \mathrm{H}, 355 \mathrm{HI}) /$
$(364 \mathrm{HI}, 365 \mathrm{HI})$
Prerequisite: ITA343HI

## ITA346HI Monsters and Marvels in 26L Italian Modernist Literature

In this course we consider how in nineteenth- and twentieth century literature, fantastic and monstrous figures reflect the anxieties of the modern subject over the social, economic and existential transformations wrought by modernity. The course may include works by Tarchetti, Arrigo Boito, Capuana, Marinetti, Rosa, Bontempelli, Pirandello, Savino, and Landolfi. This course includes a component designed to enhance students' research experience.
Prerequisite: ITA 250 Y I/25IYI/252YI/253YI
ITA347HI Studies in Italian Cinema 26L,39P
This course focuses on issues of "genre" and "authorship" in the context of a general discussion of Italian film-making as a national and popular tradition. This course includes a component designed to enhance students' research experience. (Given in English)
Exclusion: ITA342YI
Recommended preparation: ITA240YI

## ITA354HI Language Practice

 (Dialect Speakers) IFor students who have a familiarity with an Italian dialect. Discussion of problems of grammar and composition with special emphasis on the noun and its derivatives. Language analysis based on readings of Italian authors. One hour a week of oral practice. This course includes a component designed to enhance students' research experience.
Exclusion: ITA $252 \mathrm{YI} /(343 \mathrm{HI}, 344 \mathrm{HI}) 350 \mathrm{YI} / 35 \mathrm{IY} / 352 \mathrm{YI} / 353 \mathrm{YI} /$ ( $364 \mathrm{H}, 365 \mathrm{H}$ )
Prerequisite: ITA25IYI/253YI
ITA355HI Language Practice

## (Dialect Speakers) II

For students who have a familiarity with an Italian dialect.
Discussion of problems of grammar, style and syntax. Language analysis based on readings of Italian authors. One hour a week of oral practice. This course includes a component designed to enhance students' research experience.
Exclusion: ITA $252 \mathrm{YI} /(343 \mathrm{HI}, 344 \mathrm{HI}) 350 \mathrm{YI} / 35 \mathrm{IY} / 352 \mathrm{YI} / 353 \mathrm{YI} /$ ( $364 \mathrm{H}, 365 \mathrm{H}$ )
Prerequisite: ITA354HI

## ITA356Y0/ Italian Culture from the 26L, 26T

 357 Y0 Middle Ages to the RenaissanceA survey of artists, writers, and thinkers from the time of Dante to the days of Leonardo. During field trips, the streets, squares, churches, and palazzi of many cities serve as living laboratories for a discussion of the topography of mediaeval and Renaissance cities. This course includes a component designed to enhance students' research experience. (Offered in Siena only.)

ITA 356 Y0:This course is taught in English and is open to students from other disciplines.
ITA 357Y0: Students who wish to petition the Department for credit towards a Specialist or Major in Italian will be required to do the readings in Italian Exclusion: ITA245YI/246HI/248YI
ITA358Y0/ Modern Italian Culture 26L, 26T 359Y0
Analysis of a selection of philosophical, artistic, musical, and literary works from the age of the Baroque to the present. The main topics of discussion include: Romanticism, Italian unification, theatre, opera, Futurism, fascism, Neorealism, regional differences, and industrialization. Field trips and viewing of movies included. This course includes a component designed to enhance students' research experience. (Offered in Siena only)

ITA 358 Y 0 :This course is taught in English and is open to students from other disciplines.
ITA 359Y0: Students who wish to petition the Department for credit towards a Specialist or Major in Italian will be required to do the readings in Italian.
Exclusion: ITA245YI/247HI/248YI

## ITA360HI Italian Linguistics 26L

For students having a knowledge of Italian and/or Italian dialects but no background in linguistics. Concepts of general linguistics. Italy as a linguistic entity. The structure of contemporary Italian, with special regard to its sound system and grammatical categories. This course includes a component designed to enhance students' research experience.
Prerequisite: ITA $250 \mathrm{Y} / / 25 \mathrm{IYI} / 252 \mathrm{Y} / / 253 \mathrm{Y}$ I
ITA36IHI Aspects of Italian Descriptive 26L and Applied Linguistics
This course deals primarily with morphological, syntactic and semantic analysis, but also discusses the educational uses of linguistics. This course includes a component designed to enhance students' research experience.
Prerequisite: ITA $250 \mathrm{YI} / 25 \mathrm{IYI} / 252 \mathrm{YI} / 253 \mathrm{YI}$ and 360 HI
ITA363HI Italian Sociolinguistics 26L
Starting with a survey of the sociolinguistic situation in Italy before Unification, this course deals with the complex relationship between regional languages and dialects on the one hand and Common Italian on the other. The recent rise of regional variants of Italian and its impact on the dialects are also discussed. This course includes a component designed to enhance students' research experience.
Prerequisite: ITA250YI/25 IYI/252YI/253YI
ITA364HI Advanced Language Practice I 39 S
Analysis and discussion of vocabulary and syntax with special emphasis on the noun phrase and Italian word derivation. Reading and linguistic analysis of selected Italian literary texts from the Middle Ages to the present. Special emphasis will be
placed on individual stylistic problems. This course includes a component designed to enhance students' research experience. Exclusion: ITA $(343 \mathrm{HI}, 344 \mathrm{HI}) / 350 \mathrm{YI} / 35 \mathrm{IYI} / 352 \mathrm{Y} / 353 \mathrm{YO} /$ $(354 \mathrm{HI}, 355 \mathrm{HI})$
Prerequisite: ITA252YI/253YI/
ITA365HI Advanced Language Practice II 39S
Analysis and discussion of vocabulary and syntax with special emphasis on the verb phrase and other syntactic structures. Reading and linguistic analysis of selected Italian literary texts from the Middle Ages to the present. Special emphasis will be placed on individual stylistic problems. This course includes a component designed to enhance students' research experience.
Exclusion: ITA $(343 \mathrm{HI}, 344 \mathrm{HI}) / 350 \mathrm{YI} / 35 \mathrm{IYI} / 352 \mathrm{Y} / 353 \mathrm{YO} /$
( $354 \mathrm{HI}, 355 \mathrm{HI}$ )
Prerequisite: ITA 364 HI

ITA370HI | Power and Success in the |
| :--- |
| Renaissance |

Concepts of power and strategies for success in Renaissance
texts including Machiavelli's II principe and Castiglione's II libro
del cortegiano. This course includes a component designed to
enhance students' research experience.
Exclusion: ITA370YI
Prerequisite: ITA250YI/25IYI/252Y I/253YI

ITA37IHI Translating II
A course designed for advanced students. Written translation of a variety of non-technical texts from English into Italian and Italian into English. This course includes a component designed to enhance students' research experience.

## Exclusion: ITA37IY

Prerequisite: Permission of Department

## ITA372HI Translating III

A course designed for advanced students. Written translation of a variety of non-technical texts from English into Italian and Italian into English. This course includes a component designed to enhance students' research experience.
Exclusion: ITA37IYI
Prerequisite: ITA37IHI or permission of Department

## ITA38IHI Topics in Modern and <br> Contemporary Literature

Focusing on compelling themes arising from critical and theoretical debates in 20th-century culture, this course analyzes poetic, narrative and dramatic works by major Italian modern and contemporary authors. This course includes a component designed to enhance students' research experience.
Prerequisite: ITA $250 \mathrm{Y} / / 25 \mathrm{IYI} / 252 \mathrm{YI} / 253 \mathrm{Y}$ I
ITA390HI The Commedia dell'Arte
A study of the conventions of the Commedia dell'Arte tradition in the context of its performance history from the late Renaissance to the present. Issues examined include acting techniques, improvisation, masks and costumes, iconography and adaptation to film. This course includes a component designed to enhance students' research experience. (Given in English)

## ITA394HI The Opera Libretto

An in-depth study of four opera librettos, examined first in the context of contemporary theories of drama, and then in the context of recent stagings, all available in video form, by distinguished directors. This course includes a component designed to enhance students' research experience. (Given in English)

ITA395YO Special Topics in Italian Studies 52 S
The area of concentration will depend upon the instructor teaching the course in any given year. (Offered only during the summer through the Summer Abroad Program)

## ITA398H0/ Independent Experiential Study Project

 399Y0An instructor-supervised group project in an off-campus setting. See page 47 for details.

## ITA400HI Autobiography <br> 26L <br> An introduction to the conventions of the genre as illustrated

by a selection of representative autobiographies from different periods of history and by authors professionally engaged in different disciplines (artists, philosophers, playwrights, etc.).
Special emphasis on narrative strategies and on the rhetoric of self-description. This course includes a component designed to enhance students' research experience.
Prerequisite: ITA 250 Y I/ $25 \mathrm{IYI} / 252 \mathrm{YI} / 253 \mathrm{Y}$ I
ITA405HI I9th Century Italian Poetry 26L
Centred around the poetic production of Leopardi, Pascoli, and D'Annunzio, the course explores the main literary, artistic and socio-political issues that characterize Italy's cultural contribution within the context of the romantic movements in Europe. This course includes a component designed to enhance students' research experience.
Prerequisite: ITA250YI/25IYI/252YI/253YI

## ITA409HI Masterpieces of Medieval

## and Renaissance Drama

This course examines the impact of the theatrical works of Feo Belcari, Lorenzo de' Medici, Machiavelli, Ariosto and others in the development of theatre in 15th and 16th century Italy. This course includes a component designed to enhance students' research experience.
Prerequisite: ITA250YI/25IYI/252YI/253YI
ITA4IOHI Masterpieces of Modern Drama 26L
An analysis of the most representative works of 20th-century Italian dramatists, from Pirandello to Fabbri to Fo.
This course includes a component designed to enhance students' research experience.
Prerequisite: ITA $250 \mathrm{Y} \mathrm{I} / 25 \mathrm{IYI} / 252 \mathrm{YI} / 253 \mathrm{Y} \mathrm{I}$
ITA4I5HI Drama in Performance 26L
An in-depth study of two plays, one of which is studied in the context of its production history and against the background of contemporary performance theory and theatre technology, while the other is examined from the dramaturgical perspective of current theatre practice and in the context of modern theories of directing. This course includes a component designed to enhance students' research experience. (Given in English)

ITA420HI Spinning a Tale:The Italian 26L Short Story from Boccaccio to Basile
The short story genre and its development from the Middle Ages to the Baroque. In addition to Boccaccio's tales, included are some of the most famous stories of Western literature, which later inspired masterpieces in all art forms, such as Romeo and Juliet, Othello and Puss in Boots. This course includes a component designed to enhance students' research experience.
Exclusion: ITA42IYI
Prerequisite: ITA250YI/25IYI/252YI/253YI

## ITA42IHI Spinning a Tale :The Italian

## Short Story after 1800

The short story genre and its development from 1800 to the present. Authors to include Pratesi, Verga, Negri, Landolfi.
This course includes a component designed to enhance students' research experience.
Exclusion: ITA42IYI
Prerequisite: ITA250YI/25IYI/252YI/253YI
ITA426HI Actors, Directors and Stage
Artists of the Renaissance and Baroque Periods
The origin and early development of the professional theatre in Italy. Among the topics examined are the composition of theatrical companies, acting conventions, theories of directing, costume design, theatre architecture, and production technology.
This course includes a component designed to enhance students' research experience.
Prerequisite: ITA $250 \mathrm{Y} / / 25 \mathrm{IYI} / 252 \mathrm{YI} / 253 \mathrm{Y}$ I

## ITA430HI History of the Italian Language 26L

The historical formation of the Italian language and of its dialects. Historical phonology and morphology, and problems of syntax and lexicon. Reading and linguistic analysis of early Italian texts. This course includes a component designed to enhance students' research experience.
Prerequisite: ITA250YI/25IYI/252YI/253YI

## ITA436HI Man and Society from the

 Renaissance to the EnlightenmentA study of the different concepts of man and his place in society, as exemplified in Italian literature from the late 15th to the 18th century. This course includes a component designed to enhance students' research experience.
Exclusion: ITA436YI
Prerequisite: ITA250YI/25IYI/252YI/253YI

## VIC440YI Florence and the Renaissance

See "Victoria College Courses"

## ITA44IHI Italian Novel into Film: Aspects of Cinematic Adaptation

An analysis of the process of adaptation in an exploration of the ideological and narratological perspectives as well as the stylistic elements of literary and cinematic discourse. Selections include novels by Verga, Tomasi di Lampedusa, Moravia, Bassani and their filmic adaptations by directors such as Visconti, De Sica, Bertolucci. This course includes a component designed to enhance students' research experience. (Given in English)
Recommended preparation: One of: ITA240YI/340YI/340HI/
$34 \mathrm{IHI} / 347 \mathrm{HI} / 38 \mathrm{IYI}$. Knowledge of Italian recommended
ITA45IHI Advanced Composition 39S and Stylistics I
A study of the more complex aspects of Italian syntax, stylistics and semantics. Discussion of problems and difficulties relating to syntax, vocabulary and style as they arise from individual compositions or essays. Reading and linguistic analysis of selected Italian literary texts. This course includes a component designed to enhance students' research experience.
Prerequisite: ITA $(343 \mathrm{HI}, 344 \mathrm{HI}) / 350 \mathrm{YI} / 35 \mathrm{IYI} / 352 \mathrm{YI} / 353 \mathrm{YI} /$
$(354 \mathrm{HI}, 355 \mathrm{HI}) /(364 \mathrm{HI}, 365 \mathrm{HI})$
Exclusion : ITA450Y/45IY/452Y

## ITA452HI

## Advanced Composition

39S and Stylistics II
A continuation of the study of the more complex aspects of Italian syntax, stylistics and semantics. Discussion of problems and difficulties relating to syntax, vocabulary and style as they arise from individual compositions or essays. Reading and linguistic analysis of selected Italian literary texts. This course includes a component designed to enhance students' research experience.
Prerequisite: ITA45IHI
Exclusion : ITA450Y/45 IY/452Y
ITA455HI Women Writers in Italy 26L
Cultural movements and feminist issues as reflected in the writings of various periods. This course includes a component designed to enhance students' research experience.
Prerequisite: ITA $250 \mathrm{Y} / / 25 \mathrm{IYI} / 252 \mathrm{YI} / 253 \mathrm{Y} \mathrm{I}$

## ITA470HI Galileo and the Scientific

Revolution in Renaissance Italy
Focusing on Galileo Galilei, this course examines the development of the language of science in Renaissance Italy using a variety of tools such as literary and scientific texts, overheads, multimedia programs, and the Internet. This course includes a component designed to enhance students' research experience.
Prerequisite: ITA $250 \mathrm{Y} / / 25 \mathrm{IYI} / 252 \mathrm{YI} / 253 \mathrm{Y}$ I
ITA47IHI Translating IV 26S
Written translation of literary, administrative, business, and semitechnical texts from English into Italian and Italian into English. This course includes a component designed to enhance students' research experience.
Exclusion: ITA47IYI
Prerequisite: Permission of Department

## ITA472HI TranslatingV <br> 26S

Written translation of literary, administrative, business, and semitechnical texts from English into Italian and Italian into English.
This course includes a component designed to enhance students' research experience.
Exclusion: ITA47IYI
Prerequisite: ITA47IHI or permission of Department

## ITA473HI Legal, Scientific and Business 26S

 ItalianReading, lexical and syntactic analysis of representative texts written in business, legal and scientific Italian. Translation of such texts into English and of comparable English texts into Italian. This course includes a component designed to enhance students' research experience.
Exclusion: ITA472YI
Prerequisite: Permission of Department
ITA475HI Literature and Desire
26L
This course traces the development of erotic discourse in Italian culture. Course material is drawn from poetry, prose, and plays on love, focusing both on the literary and psychoanalytic language of love. This course includes a component designed to enhance students' research experience.
Prerequisite: ITA $250 \mathrm{YI} / 25 \mathrm{IYI} / 252 \mathrm{YI} / 253 \mathrm{YI}$

## ITA489HI Independent Studies

An opportunity to pursue at the 400-level an independent course of study not otherwise available. A written proposal, co-signed by the instructor, must be submitted on the appropriate proposal form for approval by the Department of Italian Studies. Application deadline: April 30 for $F$ courses, November 30 for $S$ courses. Prerequisite: Permission of Department

## Italian Studies

## ITA490YI Independent Studies

In exceptional circumstances, students may request to pursue at the 400 -level an independent course of study not otherwise available. A written proposal, co-signed by the instructor, must be submitted on the appropriate proposal form for approval by the Department of Italian Studies. Application deadline April 30. Prerequisite: Permission of Department

ITA49IHI Topics in Contemporary Fiction 26L
This course traces the debate on the relationship between writing and reality in contemporary fiction from the early 20th century to neo-realism and post-modernism. Texts studied are by such prominent writers as Pirandello, Svevo, Gadda,Vittorini, Calvino, Morante, and Eco. This course includes a component designed to enhance students' research experience.
Prerequisite: ITA $250 \mathrm{Y} / / 25 \mathrm{IYI} / 252 \mathrm{YI} / 253 \mathrm{Y}$ I
$\begin{array}{ll}\text { ITA492HI } & \begin{array}{l}\text { What is a Poet? The Roles and } \\ \text { Functions of Poetry in }\end{array}\end{array}$ Twentieth-Century Literature
What function can the aesthetic experience play in capitalist society? This course examines how, through irony, humour, pathos, lyricism, or detachment, twentieth century poets sought to provide an answer, and to renew the poetic tradition. The course may include works by Gozzano, Marinetti, Palazzeschi, Montale, Luzi, Caproni, and Sanguineti. This course includes a component designed to enhance students' research experience. Prerequisite: ITA250YI/25 IYI/252YI/253YI

## ITA493HI Italian-Canadian Literature II: 26L

 Identity and VoiceCritical investigation of works by Italian-Canadian authors, focusing on themes linked to the second-generation experience, such as intergenerational conflict, gender relations, the return journey, and the quest for identity. Special attention is given to the most recent production, new narratives and artistic forms. This course includes a component designed to enhance students' research experience. (Texts are available in Italian and English) Recommended preparation: One of ITA233YI/334HI

## ITA494H I The Artist as Writer

Writings by Italian artists through the ages, including Michelangelo in the Renaissance. This course includes a component designed to enhance students' research experience. (Given in English)
Exclusion: ITA494Y I

## Faculty

Professors Emeriti
J. Kornberg, MA, Ph D (HIS)
A. Pietersma, BA, BD, Ph D (NMC)
G.P. Richardson, B Arch, BD, Ph D (U)(RLG)
R. Sandler, MA, Ph D (NMC)

Professor and Program Director
D.J. Penslar, MA, Ph D, C Phil (U) (HIS) Samuel J. Zacks Chair in Jewish History

## Professors

E. Adler, BA, MA, Ph D (POL)

Andrea and Charles Bronfman Chair in Israeli Studies
D. Bergen, MA, Ph D Chancellor Rose and Ray Wolfe Chair in Holocaust Studies
R.B. Gibbs, BA, MA, Ph D (U) (PHL)
J. Kloppenborg, MA, Ph D (RLG)
R.J. Leprohon, MA, Ph D (NMC)
M.R. Marrus, MA, Ph D, FRSC (T) (HIS)
D. Novak, MHL, Ph D (U) (RLG, PHL)
J. Richard and Dorothy Shiff Chair of Jewish Studies
C. Orwin, MA, Ph D (SM) (POL)

Associate Professors
Y.M. Bodemann, MA, Ph D (SOC)
J. Bryant, MA, Ph D (SM) (RLG)
H.Fox, BSc, BA, MA, Ph D (NMC, RLG)
W. Goetschel, Lic Phil, Ph D (GER)
K.H. Green, MA, Ph D (RLG)
A. Harrack, MA, Ph D (NMC)
I. Kalmar, MA, Ph D (W,V) (ANT)
J.S. Kopstein, MA Ph D (POL)
T. Meacham, MA, Ph D (NMC)
S. Metso, MA, Th D (NMC)
M.D. Meyerson, MA, Ph D (HIS)
J. Newman, MAR, Ph D
J.A. Reilly, MA, Ph D (NMC)
M.E. Subtelny, MA, Ph D (NMC)
P.Wróbel, MA, Ph D (HIS)

## Assistant Professors

M.Chazan M Phil, Ph D (V)
A.S. Cohen, MA, Ph D (Fine Art)
T.P. Harrison, MA, Ph D (NMC)
R. Holmstedt, MA, Ph D (NMC)
J. Marshall, MA, Ph D (RLG)
A. Most, MA, Ph D (ENG)
A. Shternshis, MA, D Phil (GER)

## 2007/08 Shoshana Shier Distinguished

 Visiting ProfessorProfessor K. Stow, Department of Jewish History, University of Haifa

## Special Lecturer

S. Green, MA, Ph D (NMC)

These inter-disciplinary and inter-departmental programs study both traditional and modern Jewry. The courses provide an opportunity to study the religion, languages, literature, history and philosophy of the Jewish people from biblical times to the present.

## Lewish Studies Programs

## Lewish Studies (Arts program):

Jewish Studies Program is divided into three main areas of concentration:

A: Judaism and Jewish Thought;
B: Jewish History and Society;
C: Jewish Language and Literature.

## Specialist program:

(I2 full courses or equivalent, including $4300+$ series and I 400series courses)
I. One Hebrew course: NMC I36Y or NMC 230 Y (or written equivalency examination)
2. Eight courses from one of the areas of concentration listed above
3. Four courses from at least two other Areas

## Major program:

(6 full courses or equivalent, including two 300 -series courses)
I. Four courses from one area of concentration listed above
2. Two further courses from at least one other area
3. Two courses must be at the $300+$ level.

Minor program:
(4 full courses or equivalent, including one 300 -series course)

## Courses Offered by the Jewish Studies Program

The following is a list of courses typically offered by the Jewish Studies Program. For detailed information on courses offered in the current academic year, please check the 2006-2007 Jewish Studies Undergraduate Handbook. If your division does not carry the handbooks, please call 416-978-8। 18 .

Department of Anthropology
ANT 426HI Orientalism:Western Views of the Other
Department of English (416-978-3190)
ENG256Y I Twentieth-Century North American Jewish Literature
Department of German (416-926-2324)
GER260YI Elementary Yiddish
GER360HI Intermediate Yiddish
GER36IHI Yiddish Literature and Culture in Translation
GER362HI Soviet and Kosher: Jewish Culture in the Soviet Union, 1917-194I
GER363YI Cultural History of the East European
Community, 1800-2000
GER4IIHI Introduction to Critical Theory
GER462HI Advanced Yiddish
GER49IYI Individual Studies
Department of History (416-978-3363)
HIS206YI Medieval History of the Jewish People
HIS208YI Modern History of the Jewish People

## Jewish Studies

| HIS304YI | Medieval Spain: 7II-16IO |
| :--- | :--- |
| HIS307HI | Middle East International Relations |
| HIS338YI | The Holocaust: Nazi Germany, Occupied |
|  | Europe, and the Destruction of European Jewry |
| HIS356HI | Zionism and the State of Israel |
| HIS4I4HI | The Third Reich |
| HIS433HI | Polish Jews Since the Partitions of Poland |
| HIS442YI | Antisemitism and Jewish Responses |
| HIS444HI | Topics in Jewish History: Society and the <br>  <br> Sacred: Birth, Marriage, Death in Jewish Culture <br> HIS45IHI World War II in East Central Europe |

## Department of Near and Middle Eastern

 Civilizations (416-978-3180)HUMI99HI/YI Mystical Dimensions of Islam and Judaism NMC230YI Introductory Biblical Hebrew
NMC256YI Literature and Culture of Modern Israel
NMC257YI Literature of Jewish Sages
NMC278YI Introduction to the Modern Middle East/
NMC33IHI Mishnah and Tosefta
NMC333YI Intermediate Biblical Hebrew: Pentateuch
NMC36YI Intermediate Modern Hebrew
NMC352HI Faith and Doubt in Modern Hebrew Poetry
NMC384HI Life Cycle and Personal Status in Judaism: Reproductive Technology and Jewish Law
NMC432YI Halakhic Midrashim

| Department of Philosophy (416-978-33 II) |  |
| :--- | :--- |
| PHL338HI | Jewish Philosophy |
| PHL4IOHI | Seminar in Continental Philosophy: Derrida As <br>  <br> Philosophical Reader |

Department of Political Science (416-978-3343)
POL345HI Becoming Israel:War, Peace and the Politics of Israel's identity
POL42IHI Maimonides and his Modern Interpreters
POL430YI Comparative Studies in Jewish and Non-Jewish Political Thought

## Department for the Study of Religion

(416-978-2395)

| RLG202YI | The Jewish Religious Tradition |
| :--- | :--- |
| RLG220HI | Philosophical Responses to the Holocaust |
| RLG22IHI | Religious Ethics: the Jewish Tradition |
| RLG239HI | Special Topics: Jewish and Christian Polemics |
| RLG280YI | Comparative World Religions |
| RLG320HI | Judaism and Christianity in the Second Century |
| RLG340YI | Classical Jewish Theology |
| RLG34IHI | Dreaming of Zion: Exile and Return in Jewish |
|  | Thought |
| RLG342YI | Judaism in the Modern Age |
| RLG343HI Kabbala: A History of Mystical Thought in |  |
|  | Judaism |
| RLG344YI | AntiSemitism |
| RLG345HI | Ecology and Judaism |
| RLG346HI | Time and Place in Judaism |
| RLG440HI | Advance Topics: Natural Law in Judaism and |
|  | Christianity |

Department of Slavic Languages and Literatures
SLA302HI The Imaginary Jew

## Joint Courses

See page 27 for Key to Course Descriptions.
These courses are sponsored by more than one department, college, or program office.

## Note

For Distribution Requirement purposes (see page 33), the following courses are variously classified; check listing at the end of each course.

JAG32IHI Aboriginal People and Environmental Issues in Canada
See Aboriginal Studies or Geography
This is a Social Science course
JAL328HI Writing Systems
See Anthropology or Linguistics
This is a Social Science course
JAL355HI Language and Gender
See Anthropology or Linguistics
This is a Social Science course

## JAL40IHI Field Linguistics

See Anthropology or Linguistics
This is a Social Science course
JB0302YI Human Physiology and Biophysics
See Physics or Physiology
This is a Science course
JBI428HI Molecular Immunology
See Biochemistry or Immunology
This is a Science course
JDC400HI Dramatic Text and Theatrical
Communication
See Comparative Literature or Drama
This is a Humanities course
JDC4IOHI New Approaches to Theatre History
See Drama
JEFIOOYI The Western Tradition
See English or French
This is a Humanities course

## JFG470HI Forest Management

See Geography or Forest Conservation
This is a Science course
JFG475HI Emergency Response Systems Planning
See Geography or Forest Conservation
This is a Science course

## JFI225YI Second Language Learning

See French or Italian
This is a Humanities course
JFL477HI Issues in French and Linguistics I
See French or Linguistics
This is a Humanities course
JFL478HI Issues in French and Linguistics II
See French or Linguistics
This is a Humanities course

## JFP450HI First Nations Issues in Health and

 HealingSee Aboriginal Studies or Faculty of Pharmacy
This is both a Humanities and a Social Science course
JFV323HI Semiotics and Literature I
See French or Victoria College.
This is a Humanities or Social Science course.
JGE22IYI Environment and Sustainable
Development
See Geography or Centre for Environment.
This is a Social Science course.
JGI2I6HI Urbanization \& Global Changel
See Geography or Innis College
This is a Social Science course
JGI346HI The Urban Planning Process in Canada
See Geography or Innis College
This is a Social Science course
JGI454HI The Role of the Planner: Making a
Difference
See Geography or Innis College
This is a Social Science course
JGP438HI Shallow Crust Geophysics
See Geology or Physics
This is a Science course
JHP304YI Ukraine: Politics, Economy and Society
(formerly JHP204Y)
See History or Political Science
This is both a Humanities and a Social Science course
JHP435YI Linguistics and Cultural Minorities in Europe
See History or Political Science
This is both a Humanities and a Social Science course
JHP440YI Gender \& International Relations
See History or Political Science
This is both a Humanities and a Social Science course
JHP454YI Twentieth Century Ukraine
See History and Political Science
This is both a Humanities and a Social Science course
JIA400HI Interdisciplinary Practice for the Arts
See Drama
This is a Humanities course
JIE307YI Urban Sustainability
(formerly INI307YI)
See Geography, Innis College Urban Studies or Centre for Environment
This is a Social Science course
JLP3I5HI Language Acquisition
See Linguistics or Psychology
This is a Science course
JLP374HI Psychology of Language
See Linguistics or Psychology
This is a Science course
JLP47IHI Advanced Psycholinguistics
See Linguistics or Psychology
This is a Science course

## Joint Courses

## JLS474HI Disorders of Speech and Language

See Linguistics
This is a Science course.
JMBI70YI Biology, Models, and Mathematics
See Ecology \& Evolutionary Blology or Mathematics
This is a Science course
JMC30IYI State and Society in 20th Century China
See East Asian Studies or Political Science
This is a Humanities and Social Science course
JNV 300HI Gender, History and Literature
See Victoria College or Women \& Gender Studies This is a Humanities course
JOP2IOHI Holography for 3D Visualization See Physics
This is a Science course.
JPA305HI Introduction to Archaeometry
See Anthropology or Physics
This is a Science course
JPA3IOHI Physic and Archaeology
formerly JPA 300Y See Anthropology or Physics
This is a Science course
JPA400YI Advanced Physics and Archaeology
See Anthropology or Physics
This is a Science course
JPD439YI Post-Modern and Contemporary Thought
See Political Science or Sociology
This is a Social Science course
JPF455YI Cities
See Political Science
This is a Social Science course

## JPJ42IYI Comparative Constitutionalism: Rights and Judicial Review

See Political Science or Faculty of Law
This is a Social Science course
JPJ47IHI Constitutional Politics
See Political Science or Faculty of Law
This is a Social Science course
JPJ494HI Innovation and Knowledge Transfer in Regional Industry Clusters
See Political Science or Faculty of Law
This is a Social Science course
JPP343YI Women in Western Political Thought
See Philosophy or Political Science
This is a Social Science course
JSV200HI/ Communication and Conflict Resolution 262HI
See St. Michael's College or Victoria College.
This is a Social Science course.
JUG320HI The Canadian Wilderness
See Geography or University College
This is a Social Science course
JUM202HI Mathematics as an Interdisciplinary Pursuit
See Mathematics or University College
Offered every three years
This is a Science course

JUM203HI Mathematics as a Recreation
See Mathematics or University College
Offered every three years
This is a Science course
JUM205HI Mathematical Personalities
See Mathematics or University College
Offered every three years
This is a Science course
JUP460HI/YI Contemporary Issues in Peace and Conflict
See Political Science or University College
This is a Social Science course
JWU200HI Toronto in the Canadian Context
See University College Canadian Studies
This is a Humanities or Social Science course.
HAJ453HI AIDS: A Global Perspective
See Human Biology
This is a Science or Social Science course.

## MEJ204HI

Mathematics \& Poetry
See English
This is a Humanities course.
MIJ485HI Vaccines and Immunity
See Immunology or Molecular Genetics \& Microbiology This is a Science course.

## Latin: see Classics

## Latin American Studies

## Faculty

Ana María Bejarano (Political Science, UTM, and Political Science, UofT at St. George)
Anne-Emanuelle Birn (Public Health Sciences, Faculty of Medicine, UofT at St. George, and Social Science, UTSC)
Patricia Landolt (Social Science, UTSC and Centre for Urban and Community Studies, UofT at St. George)
Peter Blanchard (History, UofT at St. George)
Laura Colantoni (Spanish and Portuguese, UofT at St George)
Jock Galloway (Geography, UofT at St. George)
Gustavo Indart (Economics, UofT at St. George)
Kenneth Mills (History, UofT at St. George, and Director)
Valentina Napolitano Quayson (Anthropology, UofT at St. George)
Ana T. Pérez-Leroux (Spanish and Portuguese, UofT at St. George)
Victor R. Rivas (Spanish and Portuguese, UofT at St. George)
Néstor Rodríguez (Spanish and Portuguese, UofT at St George)
David Rojinsky (Spanish and Portuguese, UofT at St. George)
Rosa M. Sarabia (Spanish and Portuguese, UofT at St. George)
Daniel Schugurensky (OISE and Centre for Urban and Community Studies, UofT at St. George)
Ricardo Sternberg (Spanish and Portuguese, UofT at St. George)
Judith Teichman (Social Sciences, UTSC, and Political Science, UofT at St. George )
William O. Walker III (History, UofT at St. George)
Derek Williams (Historical Studies, UTM, and History, UofT at St. George)
Latin American Studies at the University of Toronto (LAS@UofT) is a programme for students in the social sciences, humanities and sciences who seek a deeper understanding of the Latin American regions, their histories, cultures and societies. LAS@UofT seeks to inspire knowledge and experience across the University's three-campus community and beyond. The programme's courses encourage students to complement special interests in fields such as Anthropology, Political Science, Geography, History or Sociology with a broader interdisciplinary framework, while at the same time committing themselves to an emphasis upon the languages and the historical and cultural experiences of Spanish and Portuguese America.

LAS@UofT exists to bring together the energy and insights of a multi-disciplinary collection of individuals and units, to develop innovative courses and to stimulate exchange. The programme's research and pedagogical mission encompasses everything from the ancient American civilizations and the ideas, peoples and commodities that came together and emerged within a wide Iberian world, through the archaeology, geography, history, languages, literatures, politics, societies and cultures of the Latin American regions and countries, to the natural sciences and transnational investigation of Latin Americans and their descendants in Canada and elsewhere.

## Contact:

Camille Harrison
Administrator
Latin American Studies at the University of Toronto
Munk Centre for International Studies, 327N
I Devonshire Place
camille.harrison@utoronto.ca, 416 946-8972
Kenneth Mills
Professor of History \& Director
Latin American Studies at the University of Toronto ken.mills@utoronto.ca

LAS@UofT website: www.utoronto.ca/las

## LatinAmerican Studies Program

## Latin American Studies (Arts program)

## Major program

(7 full courses or equivalent including at least two courses at the 300+ level)
I. Course work: Students must successfully complete seven full courses or their equivalents sponsored or approved by LAS@ UofT, as well as satisfy the requirements of their departmental specialization. The requirement is six full courses for students who begin their language study in PRT220YI or SPA220YI/ SPA3I9YI, or who demonstrate language proficiency by exam. Of the required courses:

- One course must be LAS200YI
- At least one course must be LAS300HI or LAS30IHI.

Note that if the subject matter and/or instructor has changed, it will be possible to take, and be credited for, LAS300HI or LAS30IHI more than once.

## Courses eligible for programme credit

Courses eligible for programme credit include those appearing below. Please note that some of the courses have pre-requisites; in all cases, and for updates on courses being offered, check individual department websites.

## Latin American Studies

LAS200YI Latin American History, Civilization and Culture
LAS300HI Topics in the Social Sciences
(Latina/o Identity in Canada)
LAS30IHI Topics in the Humanities (Postcolonial Imaginary in Latin America)
LAS400HI Topics in Latin American Studies
(Gender, Migration and Globalization)
Anthropology
ANT340HI Anthropology of Latin America
Geography
GGR240YI Historical Geography of the Americas
History
HIS29IYI Latin America:The Colonial Period
HIS292YI Latin America:The National Period
HIS30IYI Imperial Spain
HIS333YI Revolution in 20th Century Latin America
HIS390YI Latin America in the Age of Revolution
HIS402HI Indigenous Colonial Cultures in the Spanish and Portuguese Americas
HIS44IHI Conversion \& Christianities in the Early Modern Spanish World
HIS456YI Black Slavery in Latin America

## Latin American Studies

| Political Science |  |
| :---: | :---: |
| POL305Y | Politics and Society in Latin America |
| POL442HI | Topics in Latin American Politics |
| Portuguese |  |
| PRTIOOYI | Beginners Portuguese |
| PRTIIOYI | Elementary Portuguese |
| PRT220YI | Intermediate Portuguese |
| PRT255HI | The Brazilian Puzzle: Culture and Identity |
| PRT258HI | Introduction to Luso-Brazilian Studies |
| PRT355HI | Topics in Brazilian Studies |
| PRT357HI | Modern and Contemporary Brazilian Literature |
| PRT365H I | The Rise of Modern Identity |
| PRT454YI | The Luso-Brazilian Identity |
| PRT455YI | Machado de Assis and Eça de Queiroz |
| PRT458HI | The Luso-Brazilian Short Story |
| Spanish |  |
| SPAIOOYI | Spanish for Beginners |
| SPA220YI | Intermediate Spanish |
| SPA259HI | Introduction to Hispanic Cultural Studies |
| SPA375HI | Latin American Cinema |
| SPA380HI | Colonial Literature and Cultures |
| SPA38IHI | Nation, Identity and Literary Modernism in Spanish-America |
| SPA382HI | Spanish American Women in Art, Film and Literature |
| SPA384HI | Avant-Garde Movements in Spanish America |
| SPA385HI | Literature and Social Change in Spanish America |
| SPA467HI | Topics in Spanish-American Culture |
| SPA468HI | Topics in Modern Spanish-American Literature |
| SPA47IHI | The Historical Novel in Spanish America |
| SPA480HI | Theories of Culture in Latin America |
| SPA482HI | $20^{\text {th }}$ Century Spanish American Narrative |
| SPA486HI | Contemporary Caribbean Literatures and Identities |
| SPA487HI | The Culture of Revolution |
| UTM Courses |  |
| HIS290H5 | Intro to Latin American History |
| HIS345H5 | Popular Culture in Latin America |
| HIS390H5 | Revolutions and Nations in Latin America |
| HIS39IH5 | Modern Mexico |
| HIS454H5 | Race, Gender and Nation in Modern Latin America |
| HIS490H5 | Religion and Society in Latin America |
| POL20IY5 | Politics of the Third World |
| POL36IH5 | After Regime Change:The Quality of Democracy in Latin America |
| UTSC Courses |  |
| POLB90H3 | Comparative Development in International Perspective |
| POLB91H3 | Comparative Development in Political Perspective |
| POLC9IH3 | Development Studies: Political and Historical |
|  | Perspectives |
| POLC99H3 | Latin America:The Politics of the Dispossessed |
| SOCC25H3 | Comparative Ethnic and Race Relations |

2. Language: Students must successfully complete (with a grade of at least 65\%) the first two levels of instruction in the Spanish or Portuguese language by the end of the third year of study (SPAI00YI then SPA220YI; or SPA3I9 [for heritagespeakers, and viewed by the programme as an equivalent of SPA 220YI]; PRTIOOYI/PRTIIOYI then PRT220YI ), or demonstrate equivalent proficiency in the given language through examination by LAS@UofT before the end of the second year.

## Latin American Studies Courses

## See page 33 for Key to Course Descriptions.

For Distribution Requirement purposes (see page 27), LAS courses are classified in different categories; check individual course descriptions.

## LAS200Y I Latin America: History, 52L, 26P Civilization and Culture <br> An introductory course that studies the development of societies

 in the Latin American region from its pre-Columbian past to its heterogeneous present. Cultural, geographical, historical, literary, political and social topics will be examined combining traditional historical narratives and supporting documents with art, cinema, music and other texts from popular culture and mass media. This course is open to students in at least their second year of undergraduate study. It provides both a broad foundation, and an invitation to delve deeper in further courses and in different disciplinary concentrations.Exclusion: IAS200YI
This is a Humanities or Social Science course.

## LAS300HI Topics in the Social Sciences <br> 26S (Latina/o Identity in Canada)

This issue-oriented seminar explores the construction of Latina/o identity in Canada from an interdisciplinary perspective. We look to generate knowledge and understanding about: I) the manner in which Latina/o diasporas have been constructed through historical and socio-political processes such as exile, migration, immigration, and the ways in which they are articulated within transnational processes of capital accumulation and the redefinitions of 'authentic' national subjecthood and, 2) the ways in which Latinidad emerges both within Latina/o communities and in relation to the Canadian nation and transnational realities.
Prerequisite: IAS200YI/LAS200YI
This is a Social Science Course

## LAS30 I HI Latin America:Topics in the Humanities

The issue of Latin America's postcolonial status is a controversial debate. We will explore this question through the analysis of the Latin American social imaginary. The most relevant events currently taking place in Latin America will be studied in relation to the most notable expressions of resistance originating in the 19th and 20th centuries. Critical texts will provide the theoretical basis for the discussion of films and related texts. We will pay particular attention to works of Simón Bolívar, José Martí, Che Guevara, Pablo Neruda, Rigoberta Menchú, Subcomandante Marcos, Sergei Eisenstein, Walter Salles, Tomás Gutiérrez Alea, and others. Although class discussions will be conducted in English, a reading knowledge of Spanish is required. The films will be scheduled for viewing outside of class.
Prerequisite: IAS200YI/LAS200YI
This is a Humanities course.

## Latin American Studies

## LAS400HI Topics in Latin American Studies I 26S

 (Gender, Migration and Globalization)An in-depth exploration of specific themes in the study of Latin America. Designed especially for students in their third or fourth year of undergraduate study, pursuing an LAS Major. Special topics will vary; emphasis upon discussion of common readings and sources in a seminar format.

Prerequisite: IAS200YI/LAS200YI plus at least one other course eligible for LAS programme credit
Note: please see LAS@UofT web site for more details on this course.

## Life Sciences

The following Life Science departments and programs are included in this section:

```
Biochemistry
Biology
Botany (see Biology)
Cell & Systems Biology
Ecology & Evolutionary Biology
Human Biology
Immunology
Laboratory Medicine & Pathobiology
Molecular Genetics & Microbiology
Neuroscience (see Human Biology)
Nutritional Sciences
Pharmacology & Toxicology
Pharmaceutical Chemistry
Physiology
Psychology
Zoology (see Biology)
```

Many of the Life Science programs listed in this section are collaborative programs given by the Faculty of Arts and Science and departments in the Faculty of Medicine. The Life Sciences all focus on the scientific study of life. The study of biological processes has enormous importance for:

Understanding one's own body and those of other organisms sharing our planet, both in health and sickness;

Analysing the behaviour of humans and other organisms
Understanding the interdependent web of living organisms on the planet, and their evolutionary relationships;

Preparing for ethical, social and political questions arising from our increasing ability to modify living systems;

Enhancing our ability to protect the delicate and complex ecological balance that sustains this world.

Today, the biological sciences are experiencing a revolution. Important discoveries occur almost weekly as scientists and students around the world develop and use techniques, theories and approaches. Increasingly, we need people with advanced knowledge and training who can contribute to these discoveries and their application. Equally, we need people who know enough about life sciences generally to make informed judgements about critical issues such as global warming, population growth, the emergence of drug resistance and new diseases, and the degradation of the environment.

On the St. George campus, undergraduate education, graduate education and research in the Life Sciences is carried out in departments within the Faculty of Arts and Science and the Faculty of Medicine

The programs offered in the Life Sciences are listed below. Admission to all programs occurs after completion of 4.0 credits.Admission to some programs is limited. Please see individual program listings for admission criteria and procedures. Also check the Registration Handbook and Timetable's "Enrol in a Subject POSt" section for further details about programs.

For students with career goals in the health sciences, please see the "Admission to Other University Faculties/Programs" section under "Admission" in this Calendar.

## Specialist Programs

Behaviour (Ecology \& Evolutionary Biology), Biochemistry, Biogeography (Geography), Biological Chemistry (Chemistry), Bioinformatics and Computational Biology (Biochemistry), Biology, Biophysics (Physics), Botany (Biology), Cell Biology
(Cell \& Systems Biology), Comparative Animal Physiology
(Cell \& Systems Biology), Developmental Biology (Cell \&
Systems Biology), Ecology (Ecology \& Evolutionary Biology), Environment and Health (Centre for Environment), Evolutionary Biology (Ecology \& Evolutionary Biology), Genes Genetics and Biotechnology (Human Biology), Global Health (Human Biology), Health and Disease (Human Biology), Immunology, Molecular Genetics \& Microbiology, Molecular Plant Biology Cell \& Systems Biology), Neuroscience (Human Biology), Pathobiology, Pharmaceutical Chemistry, Pharmacology, Physiology, Psychology, Psychology Research, Toxicology, Zoology (Biology).

## Major Programs

Biochemistry, Biology, Botany (Biology), Ecology \& Evolutionary Biology, Life Science (Human Biology), Nutritional Sciences, Pharmacology, Physiology, Psychology, Toxicology, Zoology (Biology).

## Minor Programs

Biology, Botany (Biology), Environmental Biology (Ecology \& Evolutionary Biology), Physiology, Psychology, Zoology (Biology)

## Animal Use in Laboratories

Laboratory investigations are part of life science programs at the University of Toronto. Programs in life sciences at the University of Toronto include courses that involve observation, handling, or experimentation on animals or on samples derived from animals. The use of animals in teaching and research is regulated by ethical and procedural guidelines and protocols. These are approved on an ongoing basis by the University Animal Care Committee, and follow provincial and federal government rules. We recognize, however, that some students may have strong reservations about personal exposure to any use of animal material in teaching. Students who want to avoid registration in programs or courses that include such labs are, therefore, encouraged to check in advance with the departments involved.

## Given by members of the Faculty of Medicine

## Faculty

Professor and Chair of the Division
M.J.Wiley, M Sc, Ph D

## Professors

J.A. Saint-Cyr, M Sc, Ph D
P.A. Stewart, M Sc, Ph D
I.M. Taylor, MD

Associate Professor
A.M.Agur, M Sc, Ph D

## Assistant Professors

P. Koeberle, Ph D
C. Morshead, Ph D

## Lecturer

B. Ballyk, Ph D

Anatomy is the science that explores the relationship between the structure and function of living things. The discipline of anatomy includes Gross Anatomy, Histology, Neuroanatomy, Embryology, and Developmental Biology. Courses offered by the Division give the essentials of these subjects.

Undergraduate Secretary:
Professor M.J.Wiley (4I6-978-2642)
Enquiries:
Medical Sciences Building, Room II56 (4I6-978-2690)

## Anatomy Courses

See page 33 for Key to Course Descriptions.
NOTE: For Distribution Requirement purposes, all ANA
courses are classified as SCIENCE courses (see page 27).
NRS202HI Neuroanatomy
See Life Science: Neuroscience

## ANA300YI Human Anatomy and 86L, I8P Histology

Structure of the human body and its relationship to function. Basic Human Cytology, Histology, Gross Anatomy, and
Neuroanatomy.
Prerequisite: BIOI50YI

## ANA30IHI Human Embryology 52L

Human embryology from fertilization to the end of the fetal period. Current concepts in mammalian morphogenesis applied to the development of the various organ systems; etiologies and pathogenesis of some of the more common human congenital abnormalities.
Prerequisite: BIOI50YI
ANA498YI Project in Anatomy TBA
A research project in Histology, Cellular or Molecular Biology, Developmental Biology, Neuroanatomy or Gross Anatomy. Prerequisite: Permission of a professor to supervise the project

## Collaborative Program of the Faculty of Arts \& Science and the Faculty of Medicine

## Faculty

University Professor Emeritus
M.A. Packham, BA, Ph D, FRSC

Professors Emeriti
R.A.Anwar, M Sc, Ph D
A. Bennick, M Sc D, Ph D
N. Camerman, B Sc, Ph D
G.E. Connell, BA, Ph D, FRSC, O.C.
T. Hoffmann, Dip Chem, D Sc Tech
V.K. Kalnins, M Sc, Ph D
B.G. Lane, BA, Ph D
H.G. Lawford, B Sc, Ph D
A. Marks, MD, Ph D
M.A. Moscarello, BA, MD, Ph D
R.K. Murray, MB, Ch B, MS, Ph D
R.H. Painter, B Sc, Ph D (T)
B. Sarkar, M Pharm, Ph D
H. Schachter, BA, MD, Ph D, FRSC
D.O.Tinker, B Sc, Ph D
G.R.Williams, B Sc, Ph D, D Sc (S), FRSC

Professor and Chair of the Department
R. Reithmeier, B Sc, Ph D

## University Professor

D.H. MacLennan, BA, M Sc, Ph D, FRSC, O.C.

## Professors

K.Adeli, B Sc, M Sc, Ph D
R.R. Baker, B Sc, Ph D (V)
D. Bazett-Jones, M Sc, Ph D
C.E. Bear, M Sc, Ph D
H.S. Chan, B Sc, Ph D
D.M. Clarke, B Sc, Ph D
C.M. Deber, B Sc, Ph D, FRSC
J. Forman-Kay, B Sc, Ph D
S. Grinstein, B Sc, Ph D, FRSC
J.W. Gurd, BA, Ph D
L. Howell, B Sc, Ph D
C.J. Ingles, B Sc, Ph D
D.E. Isenman, B Sc, Ph D
A.O. Jorgensen, Ph D
L. Kay, B Sc, Ph D, FRSC
F.W. Keeley, B Sc, Ph D
S. Kelley, BA, Ph D
A. Klip, M Sc, Ph D, FRSC
P.N. Lewis, B Sc, Ph D
C.A. Lingwood, B Sc, Ph D
L.A. Moran, B Sc, Ph D
E.F. Pai, Dipl-Chem, Dr rer nat
G. Privé, B Sc, Ph D
D.E. Pulleyblank, B Sc, Ph D
B.H. Robinson, B Sc, Ph D
D. Rotin, B Sc, Ph D
J.M. Segall, B Sc, Ph D
C.H. Siu, BA, Ph D
J. Sodek, B Sc, Ph D
W. Trimble, B Sc, Ph D
D.B.Williams, M Sc, Ph D
S.Wodak, L.C. Ph D

Associate Professors
L. Attisano, B Sc, Ph D
G.W. Brown, B Sc, Ph D
J.W. Callahan, M Sc, Ph D
A. Chakrabartty, B Sc, Ph D
A.R. Davidson, B Sc, Ph D
J.R. Glover, B Sc, Ph D
W. Houry, B Sc, Ph D
G. Lukacs, Ph D, MD
M.L. Rand, B Sc, Ph D
J. Rini, B Sc, Ph D
C.A. Smibert, B Sc, Ph D
I. Stagljar, B Sc Dipl-Mol Biol, Ph D
B. Steipe, MD, Ph D
C.M.Yip, BA Sc, Ph D

## Assistant Professors

M.F. Manolson, B Sc, Ph D
A. McQuibban, B Sc, M Sc, Ph D
J. Parkinson, B Sc Ph D
R. Pomès, B Eng, Ph D
J. Rubinstein, B Sc, Ph D
S. Sharpe, B Sc, Ph D
A. Volchuk, B Sc, Ph D

## Senior Lecturer

S. Andreopoulos, M Sc, Ph D

Lecturer
A. Khan, B Sc, Ph D

Biochemistry is the study of the chemistry of living organisms. Biochemists seek a molecular explanation of life by attempting to understand its underlying principles. Biochemistry is concerned with the relevance of a molecule to an organism and the correlations between its structure and its function. Modern biochemistry grew out of the application of chemical techniques to biological problems and is the foundation of biological science and medicine. In many ways it combines biology and chemistry but the subject now covers such a broad range of activity that it is difficult to draw a neat border around biochemistry. Some of the most exciting areas of current biochemistry research include:

* structural biology
* enzyme mechanisms
* signal transduction and regulation
* biotechnology
* molecular cell biology
* gene expression and development
* metabolic diseases
* proteomics and bioinformatics
* molecular evolution
* protein folding
* membranes and transport

The Biochemistry Specialist Program is academically oriented and designed to provide students with a fundamental understanding of the theoretical and practical aspects of the discipline. The program offers training in problem solving specifically using a molecular approach. Biochemistry specialists will gain experience in critical thinking and the skills required to evaluate scientific rationale. The Biochemistry Major Program offers students fundamental training in the science and gives each student in the program the chance to combine Biochemistry with another relevant Major Program. This may be within the Life Sciences or Basic Sciences, or may be within the arts. For example, the combination of Biochemistry with Economics or with English could provide students with training relevant to the fields of investment within biotechnology or scientific journalism. Students who excel within the Biochemistry Major Program may be offered the chance to enter the Specialist Program at the third year. Frequently students who have completed a B.Sc. in the Specialist Program continue their studies in graduate programs in Biochemistry and other Life Sciences. Graduates from either the Specialist or Major Programs may find employment in research and teaching. Employers include universities and colleges, government laboratories, clinical biochemistry laboratories, forensic laboratories, pharmaceutical companies, biotechnology companies, and many other industries. Skills learned in the Biochemistry Specialist and Major Programs are also helpful in other areas such as marketing, finance, and law. Some biochemistry graduates continue their studies in medicine, dentistry or other health related programs.

Undergraduate Coordinator: R. R. Baker, roy.baker@utoronto. ca

Undergraduate Administrator: Brenda Bradshaw, brenda. bradshaw@utoronto.ca.

Enquiries: Medical Sciences Building, Room 5207 (416-9782700)

Web site: www.biochemistry.utoronto.ca

## Biochemistry Programs

## Biochemistry (Science Program)

The Biochemistry Specialist Program is a Type 3 program. Enrolment is limited and selection is based on performance in First Year courses. Typically, students considered for entrance into the Specialist Program have a GPA greater than 3.0. Students apply via the Faculty's Subject POSt web site. See the departmental web site at www.biochemistry.utoronto.ca for more information.

## Specialist Program:

(14 full courses or their equivalent, including at least three 400series courses)

First Year: BIO I50YI; CHM I5IYI/(CHM I $38 \mathrm{HI}, 139 \mathrm{HI}$ ); MAT I35YI/I36YI/I37YI; PHY IIOYI/I38YI/I40YI (PHY I38YI recommended)
Second Year: BCH 242YI; BIO 250YI; CHM 220HI, 247HI/249HI
NOTE: BIO 260 HI is a recommended preparation for MGY3IIYI.
Third Year:
I. $\mathrm{BCH} 335 \mathrm{HI}, 340 \mathrm{HI}, 37 \mathrm{IHI}$ MGY 3 IIYI
2. I.5 full-course equivalents from the following list: Any 300-level course(s) in BIO/BOT/CHM/HMB/IMM/ LMP/MGY/PCL/PSL/ZOO/BIO260HI/CHM2I7HI/345HI/ $347 \mathrm{HI} / \mathrm{BCH} 304 \mathrm{HI}$ (departmental approval required).
Fourth Year:
I. BCH 47IYI
2. Four of: $\mathrm{BCH} 422 \mathrm{HI} / 425 \mathrm{HI} / 426 \mathrm{HI} / 440 \mathrm{HI} / 44 \mathrm{IHI} / 445 /$ CHM $447 \mathrm{HI} / J \mathrm{BI} 428 \mathrm{HI} / \mathrm{MGY} 420 \mathrm{HI} / 425 \mathrm{HI}$

## Major Program

(8 full courses or their equivalent, including two 400-series halfyear courses as noted below)The Biochemistry Major program is a Type 3 program. Only students with a GPA of 2.5 or higher will be considered for entrance into the Major program. Enrollment is limited and selection is based upon performance in First Year courses. Students may combine this Biochemistry Major with another suitable Major within Science, Humanities, or Social Sciences.
In order to be admitted into the program you must have taken a full course load in first year (five full courses) and the enrollment is limited.
For more information, refer to the Biochemistry web site at www.biochemistry.utoronto.ca
First Year: BIO I50YI; CHM I5IYI (CHM I38HI, I39HI); MAT I $35 \mathrm{YI} / I 36 \mathrm{YI} / I 37 \mathrm{Y} I$
Second Year: BCH 2IOHI; BIO 250YI; CHM 247HI/249H
Third Year:
I. BCH 370 HI
2. PSL $350 \mathrm{HI} / \mathrm{BIO} 349 \mathrm{HI} *$ (*NOTE: BIO 349 HI has BIO $260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}$ as prerequisite)
3. One full-course equivalent from the following list:Any 300level course(s) in BIO/BOT/CHM/HMB/IMM/LMP/MGY/ PCL/PSL/ZOO/BIO $260 \mathrm{HI} / \mathrm{CHM} 217 \mathrm{HI} / \mathrm{CHM} 220 \mathrm{H} / \mathrm{BCH}$ 304 HI (departmental approval required)
Fourth Year: Two of: BCH $422 \mathrm{HI} / 425 \mathrm{HI} / 426 \mathrm{HI} / 440 \mathrm{HI} / 44 \mathrm{IHI} /$ $445 \mathrm{HI} / \mathrm{CHM} 447 \mathrm{HI} / \mathrm{JBI} 428 \mathrm{HI} *$ (*NOTE JBI 428 HI has IMM $334 \mathrm{Y} / 335 \mathrm{YI}$ as prerequisite)

## Bioinformatics and Computational Biology

If we were to choose the single most important scientific advance of the last century, it would be iconified in the image of the double helix of DNA and its implied duality: life propagates as pure information, which is encoded in physical molecules. Molecular biology is an information science as much as it is a physical science. Bioinformatics devises methods to make biological information computable - to abstract properties of molecules, cellular systems and biological organisms, to efficiently store and retrieve the very large volumes of data that are being accumulated, to support sensitive comparisons and to mine the data with sophisticated statistical tools. Computational biology is bioinformatics' goal: to advance our understanding of life through computational analysis, modeling, and prediction. However, integrating the two cultures of computer science and life science has been a challenge, and a bottleneck for progress has emerged from a lack of dually qualified researchers. The Bioinformatics and Computational Biology specialist program is designed to provide a balance between its foundational subjects and to cover advanced topics in both the theoretical and the life-sciences. It aims to train the generalist, who will become creative at the intersection of two fields, rather than pursue their subspecialization. The program draws on the University's state-of-the-art facilities across several departments, as well as being firmly embedded in a comprehensive landscape of graduate and postgraduate research in one of the University's
priority areas. Graduates of the program would typically pursue graduate studies in any of the participating departments: Computer Science (from the biocomputing stream, see below), Biochemistry, Botany or Zoology (from the bioanalyst stream). Important advances in the computer sciences have been motivated by these needs and there is virtually no field in the life-sciences and in molecular medicine that does not critically depend on insightful data analysis.

## Bioinformatics and Computational Biology (Science Program)

The Bioinformatics and Computational Biology Program is jointly sponsored by the Departments of Biochemistry, Botany, Computer Science and Zoology. Enrollment is limited and selection is based on performance in the required first year courses.

## Specialist program:

(16.5 full courses or their equivalent)

First Year: MATI35YI/MATI37YI/MATI57YI; (CSCI07HI/ CSCI08HI, CSCI 48 HI$) / \mathrm{CSCI} 50 \mathrm{HI} ; \mathrm{CSCI} 65 \mathrm{HI}$; CHMI5IYI / (CHMI $38 \mathrm{HI}, \mathrm{CHMI} 39 \mathrm{HI}$ ); BIOI50YI; writing requirement ( 0.5 credit, see Note 2 to Comprehensive Program in Computer Science)
Second Year: MAT223HI/MAT240HI; STA247HI; STA248 HI; CSC207HI; CSC236HI/CSC240HI; BCH242YI; BIO250YI
Third Year: CSC263HI / CSC265HI; CSC32IHI / CSC 343 HI ; CSC373HI / CSC 375 HI ; BCH44IHI / BIO 472 HI ; MGY3IIYI / (BIO260HI, BIO349HI)
Fourth Year: Bio Analyst Stream (preparation for life-science graduate programs)
BCB4IOHI; BCB420HI; CSC4IIHI; five half credits from (BCB430YI, BCH335HI, BCH340HI, MGY420HI, MGY425HI, MBY428HI, BCH422HI, BCH426HI, $\mathrm{BCH} 440 \mathrm{HI}, \mathrm{MGY} 460 \mathrm{HI}, \mathrm{BIO} 460 \mathrm{HI}, \mathrm{BIO} 473 \mathrm{HI}$, BOT 42 IHI, BOT 450 HI, BOT 458 HI )

Bio Computing Stream (preparation for computer-science graduate programs)
BCB4IOHI; BCB420HI; CSC4IIHI; CSC336HI/ CSC 350 HI ; one half credit from (MGY420HI, MGY425HI, MBY $428 \mathrm{HI}, \mathrm{BCH} 422 \mathrm{HI}, \mathrm{BCH} 426 \mathrm{HI}$, $\mathrm{BCH} 440 \mathrm{HI}, \mathrm{MGY} 460 \mathrm{HI}, \mathrm{BIO} 460 \mathrm{HI}, \mathrm{BIO} 473 \mathrm{HI}$, BOT42IHI, BOT 450 HI, BOT 458 HI ); three half credits from (BCB430YI, CSC $324 \mathrm{HI}, \mathrm{CSC} 363 \mathrm{HI}$, MAT244HI, CSC $310 \mathrm{HI} \mathrm{CSC} 32 \mathrm{IHI}, \mathrm{CSC} 343 \mathrm{HI}, \mathrm{CSC} 4 \mathrm{I} 2 \mathrm{HI}$ CSC456HI)

## Bioinformatics \& Computational Biology Courses

See page 33 for Key to Course Descriptions.For Distribution Requirement purposes, all BCB courses are classified as SCIENCE courses (see page 27). For details on BCB courses, see www.biochemistry.utoronto.ca/bcb

BCB4IOHI Applied Bioinformatics 26L, I3P Practical introduction to concepts, standards and tools for the implementation of strategies in bioinformatics and computational biology.
Prerequisite: CSC263HI, CSC373HI, MGY3IIYI/ (BIO260HI, BIO 349 HI ) or special permission

## BCB420HI Computational Systems Biology 26L

Current approaches to using the computer for modeling biology as integrated molecular systems.
Prerequisite: CSC263HI, CSC373HI MGY3IIYI / (BIO260HI,
BIO 349 HI ) or special permission
BCB430YI Special Project in Bioinformatics TBA and Computational Biology
An opportunity for specialized individual research in bioinformatics and computational biology by arrangement with the course coordinator and a supervisor.
Prerequisite: GPA 3.0 and written acceptance by coordinator and supervisor.Corequisite: $\mathrm{BCB} 4 \mathrm{IOHI}, \mathrm{BCB} 420 \mathrm{HI}$
Exclusion:Any other 4th year special project course taken at the same time.

## Biochemistry Courses

See page 33 for Key to Course Descriptions.For Distribution Requirement purposes, all BCH courses are classified as SCIENCE courses (see page 27).

## BCH299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.
BCH2IOHI Introductory Biochemistry 39L, 26T
An introductory course in biochemistry covering proteins, enzymes, and metabolism. This course is intended for students who are NOT taking BCH 242 YI as part of their program.
Exclusion: $\mathrm{BCH} 242 \mathrm{YI} / 3 \mathrm{IOHI} / 320 \mathrm{YI} / 32 \mathrm{IYI} / \mathrm{CHM} 265 \mathrm{H} 5(\mathrm{UTM}) /$ 36IH5(UTM)/362H5(UTM)
Prerequisite: (CHMI $38 \mathrm{HI}, \mathrm{I} 39 \mathrm{HI}) / \mathrm{CHMI} 5 \mathrm{IY}$
NOTE: CHMI** WITH COURSE EXCLUSIONTO CHMI38H
AND CHMI39H meet the prerequisite requirement for BCH 2 IOH . SCII** DOES NOT COUNT AS A PREREQUISITE.
BCH242YI Biochemistry 78L
An introduction to biochemistry for students specializing in biochemistry and related specialist programs. The major topics include protein structure, enzyme mechanisms, carbohydrates, metabolism and bioenenergetics, lipids, membranes, structure of DNA and RNA.
Exclusion: $\mathrm{BCH} 210 \mathrm{HI} / 310 \mathrm{HI} / 320 \mathrm{YI} / 32 \mathrm{IYI} / \mathrm{CHM} 265 \mathrm{H} 5(\mathrm{UTM}) /$ 36IH5(UTM)/362H5(UTM)
Prerequisite: (CHMI $38 \mathrm{HI}, \mathrm{I} 39 \mathrm{HI}) / \mathrm{CHMI} 5 \mathrm{I} Y$
BCH304HI Cell Dynamics \& Interactions 28L, IIT
Principles and concepts of cell biology; structure, molecular organization and dynamic cell-cell and cell-extracellular matrix interactions during cell migration, cell adhesion, cell polarity and tissue organization and the role of cytoskeletal components and cell surface receptors in these processes. Approaches and imaging techniques used; contributions of cell biology to advances in medicine.
Exclusion: ANA304YI
Prerequisite: $\mathrm{BIO} 250 \mathrm{Y} 1, \mathrm{BCH} 210 \mathrm{HI} / 242 \mathrm{YI}$
BCH335HI Nucleic Acids and Recombinant 39L DNA Technology
Structure of DNA and RNA. Catalytic RNAs (ribozymes).
Aspects of DNA topology and chromatin structure. Restriction/ modification and fundamentals of recombinant DNA technology. Exclusion: BCH 430 HI
Prerequisite: BCH242YI

## BCH340HI Proteins: from Structure to Proteomics

Proteins are the main functional units of the cell. In this course, a detailed overview of protein structure, stability, folding, and protein-ligand interactions will be given with strong emphasis on discussing the basic principles in the field. Biophysical methods as well as theoretical approaches to studying protein stability and folding will be presented. Finally, proteomics approaches to map protein-protein interactions will be discussed.
Exclusion: BCH42IHI
Prerequisite: BCH242YI

## BCH370HI Laboratory Course in I3L,39P Biochemical Techniques

Techniques in biochemical research and analytical laboratories. Intended for students who are not proceeding further in biochemistry. It is highly recommended that students take this course in their third year as space is limited and priority will go to third-year students. No enrolment will be permitted five days after the start of class. (Enrolment limited)
Exclusion: BCH37IHI, CHM379HI
Prerequisite: BCH 210 HI

## BCH37IHI A Laboratory Course in

 BiochemistryAn introduction to laboratory techniques of modern biochemistry. Experiments illustrate and develop the concepts described in lecture courses, and prepare the student for advanced training in biochemical laboratory techniques.
(Enrolment limited)
Exclusion: $\mathrm{BCH} 370 \mathrm{HI}, \mathrm{CHM} 379 \mathrm{HI}$
Prerequisite: BCH242YI

## Note

Students who have completed University of Toronto at Mississauga's CHM36IH5 and 362H5 may enroll in 400 -series lecture courses if they obtain permission of the Department

## BCH422HI Membrane Proteins: Structure, and Function

Structural features of membrane proteins and methods of analysis. Function of membrane proteins as transporters, channels, pumps and receptors. Molecular aspects of disease processes linked to membrane proteins.
Prerequisite: $\mathrm{BCH} 2 \mathrm{IOHI} / 242 \mathrm{YI}, \mathrm{MGY} 3 \mathrm{I}$ YI/BIO349HI/ PSL350HI

## BCH425HI Structural Biology: Principles and Practice

Theory and practice of modern biophysical techniques as applied in the study of structure and function of macromolecules; emphasis on protein X-ray crystallography, NMR, and other spectroscopic methods; discussion of selected examples.
Prerequisite: BCH $210 \mathrm{HI} / 242 \mathrm{YI}, \mathrm{CHM} 220 \mathrm{HI}$. Analytical problem solving skills are highly recommended for this course.
BCH426HI Regulation of Signalling Pathways
A variety of questions relating to signal transduction are investigated. How is calcium regulated in the cell and how does
calcium regulate cell function? How are extracellular signals received and transmitted by intracellular proteins to control cellular proliferation and differentiation? What signaling paths are triggered by insulin?
Prerequisite: $\mathrm{BCH} 210 \mathrm{HI} / 242 \mathrm{YI}, \mathrm{MGY} 3 \mathrm{IIYI/BIO} 349 \mathrm{HI} /$

## PSL350HI

## JBI428HI Molecular Immunology 26L

Molecular mechanisms involved in innate and adaptive immunity including the structure and function of immunoglobulins, the complement system, antigen processing and presentation and membrane signalling events. Emphasis is on experimental approaches and quantitative aspects. (Given jointly by the Departments of Biochemistry and Immunology)
Prerequisite: $\mathrm{BCH} 2 \mathrm{IOHI} / 242 \mathrm{YI}$, IMM334YI/335Y
Recommended preparation: BIO349HI/MGY3IIYI/PSL350HI
BCH440HI Protein Biosynthesis 26L
Mechanisms of translation initiation and translational control, ribosome assembly and structure. Protein folding and molecular chaperones. Protein targeting and transport. Regulation of protein degradation.
Prerequisite: BCH2IOHI/242YI, MGY 3IIYI/BIO 349HI/ PSL350HI

## BCH44IHI Bioinformatics 26L, I3T

This course covers the use of computers in biochemistry and molecular biology. The main topics include: structure and organization of sequence databases, genome databases, sequences alignment and search strategies, molecular evolution and methods for constructing phylogenetic trees. Recent advances in comparative genomics and proteomics are presented. Assignments focus on practical applications of webbased bioinformatics tools.
Prerequisite: BCH2IOHI/242YI, MGY3IIYI/BIO349HI/
PSL350HI

## BCH444HI Protein Trafficking in the 26L

 Secretory \& Endocytic PathwaysThis course examines the molecular details of the secretory and endocytic pathways in the cell. Some of the specific topics covered will include protein translocation into the ER, chaperones and protein folding in the ER, retrotranslocation and protein degradation, the Unfolded Protein Response (UPR), vesicle biogenesis and ER-Golgi transport, regulated secretion, basic concepts in endocytosis and protein sorting in polarized cells.
Prerequisite: BCH 242YI/2IOHI, MGY3IIYI/PSL 350HI/
BIO349HI
BCH445HI Organelles and Cell Function 26L
Principles and concepts of cell biology are covered including structure, biogenesis, and dynamic behaviour of cell organelles. The roles of sub-nuclear structure in DNA replication and of vesicular transport in endocytosis, exocytosis and phagocytosis are emphasized, as are modern imaging techniques and contributions of cell biology to advances in medicine.
**Please note in the past academic session this course was
presented as BCH 305 HI
Exclusion:ANA304YI, BCH305HI
Prerequisite: BIO250YI, BCH2IOHI/242YI, MGY3II/BIO349/
PSL350

## Life Sciences: Biochemistry

## BCH47 Y I Advanced Biochemistry 168P Laboratory

Experiments demonstrating modern concepts of biochemistry and molecular biology. (Enrolment limited)
Prerequisite: $(\mathrm{BCH} 335 \mathrm{HI}+340 \mathrm{HI}+37 \mathrm{IHI}) /(\mathrm{CHM} 36 \mathrm{IH} 5$ [UTM] + 362H5 [UTM] + 37IH5 [UTM]) + MGY3IIYI
BCH473YI Advanced Research Project in I54P
Biochemistry
Research in a particular area of biochemistry, by arrangement with the Department and the instructor concerned. Students must have a minimum GPA of 3.0.
Prerequisite: $\mathrm{BCH} 335 \mathrm{HI}+340 \mathrm{HI}+37 \mathrm{IHI}$, and permission of Department
Co-requisite: BCH47IYI

## Given by Members of the Departments of Cell \& Systems Biology and Ecology \& Evolutionary Biology

Students are advised to consult courses listed by these Departments.

Biology is the scientific study of life. At no time in history has biology been more visible and important to human life and the future of our planet. The study of biology has vast applications - in understanding one's own body, in grappling with the ethical questions that face humanity, and in understanding the interdependent web of living organisms on the planet. Today the biological sciences are experiencing a revolution. Important discoveries occur almost weekly as scientists and their students around the world develop and use new techniques, theories, and approaches.

The University of Toronto has many faculty conducting research and teaching courses in the biological sciences. Within the Faculty of Arts and Science, St. George campus, there is no single biology department. Biology courses once taught by the departments of Botany and Zoology are now taught by members of the new departments of Cell \& Systems Biology and Ecology \& Evolutionary Biology. Each of these departments offers its own programs and courses, but also jointly offers the Biology, Botany, and Zoology programs. Courses are available in the subject areas of behaviour, evolution, ecology, cell and molecular biology, genetics, physiology, and developmental biology. In addition, there are courses offering a field experience for students. Students should consult the Cell \& Systems Biology and Ecology \& Evolutionary Biology entries in this Calendar.

Because many areas of biology draw on mathematics and the physical sciences, background preparation in mathematics and chemistry (and sometimes physics) is recommended for students pursuing programs in biology.

Students entering their first year in the life sciences take BIOI50YI. BIOI50YI is taken by students who have successfully completed grade 12 Biology (or an equivalent course) and is a prerequisite for almost all further courses in the life sciences.

Note that courses prior to 2007-08 that were listed in Calendars under Botany and Zoology are now listed under Cell \& Systems Biology or Ecology \& Evolutionary Biology. All students, regardless of campus or Faculty, must abide by the stated course prerequisites and exclusions.

## Biology Programs

## Biology (Science program)

The Biology Specialist, Major, and Minor programs are administered through the Department of Ecology \& Evolutionary Biology. After completing 4.0 FCEs (four full courses or their equivalent), students in these programs are encouraged to discuss their course selections each year with the Department. Contact: undergrad@eeb.utoronto.ca
Enrolment in the programs listed below requires completion of 4.0 FCEs; no minimum GPA is required.

## Specialist program:

(I3 full courses or their equivalent, including at least I.0 400series FCE)
First Year: BIOI50YI; CHM (138HI, I39HI)/I5IYI; JMBI70YI/ MATI35YI/I36YI/I37YI/I57YI
Higher Years:
I. 2.0 FCEs from: chemistry, CHM $220 \mathrm{HI}, 247 \mathrm{HI} / 249 \mathrm{HI}$; physics, PHYIIOYI/I38YI/I40YI; or statistics, EEB/BIO 225 HI, PSY $20 \mathrm{IHI}, 202 \mathrm{HI}$, STA $220 \mathrm{HI}, 22 \mathrm{IHI}, 250 \mathrm{HI}$, $255 \mathrm{HI}, 257 \mathrm{HI}, 26 \mathrm{HI}, \mathrm{JBS} 229 \mathrm{HI}$
NOTE: One of the two courses selected here could also be taken in First Year
2. 3.5 FCEs: BIO250YI/255YI; BIO/BOT $25 \mathrm{IYI} ; \mathrm{BIO} / Z O O$ $252 \mathrm{YI} ; \mathrm{BIO} 260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}$
3. 0.5 FCE at the $200+$ series from: $\mathrm{BCH} ; \mathrm{BIO} ; \mathrm{BOT}$ (excluding BOT202YI); CSB (excluding CSB200YI); EEB (excluding EEB $202 \mathrm{HI}, 214 \mathrm{HI}, 215 \mathrm{HI}, 2 \mathrm{I} 6 \mathrm{HI}$ ); ENV234YI; HMB32IHI; HPS $323 \mathrm{HI}, 333 \mathrm{HI}, 353 \mathrm{HI}, 355 \mathrm{HI}$; MGY3I2HI; PSY397HI/JZP326HI, PSY497HI/JZP428HI; ZOO (excluding ZOO 200YI, 214YI, $215 \mathrm{HI}, 216 \mathrm{HI}$ )
4. I. $0300+$ series FCE in plant or microbial biology from: BOT; CSB $340 \mathrm{HI}, 350 \mathrm{HI}, 35 \mathrm{IYI}, 353 \mathrm{HI}, 450 \mathrm{HI}, 452 \mathrm{HI}$, $459 \mathrm{HI}, 460 \mathrm{HI}$; EEB $304 \mathrm{HI}, 330 \mathrm{HI}, 33 \mathrm{IHI}, 337 \mathrm{HI}, 340 \mathrm{HI}$, $34 \mathrm{IHI}, 428 \mathrm{HI}, 440 \mathrm{HI}$
5. I. $0300+$ series FCE in animal biology from: CSB 325 HI , $327 \mathrm{HI}, 328 \mathrm{HI}, 329 \mathrm{HI}, 330 \mathrm{HI}, 33 \mathrm{IHI}, 332 \mathrm{HI}, 344 \mathrm{HI}$, $345 \mathrm{HI}, 346 \mathrm{HI}, 347 \mathrm{HI}, 357 \mathrm{HI}, 425 \mathrm{HI}, 428 \mathrm{HI}, 429 \mathrm{HI}$, $430 \mathrm{HI}, 457 \mathrm{HI}, 482 \mathrm{YI}, 485 \mathrm{YI}$; EEB $309 \mathrm{HI}, 322 \mathrm{HI}, 356 \mathrm{HI}$, $360 \mathrm{HI}, 36 \mathrm{IHI}, 384 \mathrm{HI}, 386 \mathrm{HI}, 388 \mathrm{HI}, 389 \mathrm{HI}$; ZOO
6. I. $0300+$ series FCE from:ANA;ANT $436 \mathrm{HI} ; \mathrm{BCH} ; \mathrm{BIO}$; BOT; CSB; EEB; HMB32IHI; HPS $323 \mathrm{HIHI}, 333 \mathrm{HI}, 353 \mathrm{HI}$, 355HI; IMM; MGY; PSL; PSY397HI/JZP326HI, PSY497HI/ JZP428HI; ZOO
7. I. 0 400-series FCE from: BIO; BOT; CSB; EEB; ZOO

## Major program:

(8 full courses or their equivalent)
First Year: BIOI50YI; CHM (I38HI, I39HI)/I5IYI
Higher Years:
I. 3.0 FCEs: BIO250YI/255YI; BIO/BOT 25 IYI ; BIO/ZOO 252YI
2. I. 0 FCE from: BCH ; BIO, including $\mathrm{BIO} 260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}$; BOT (excluding BOT202YI); CSB (excluding CSB200YI); EEB (excluding EEB $202 \mathrm{HI}, 214 \mathrm{HI}, 215 \mathrm{HI}, 216 \mathrm{HI}$ ); ENV $234 \mathrm{YI} ; \mathrm{HMB} 32 \mathrm{IHI} ; \mathrm{HPS} 323 \mathrm{HI}, 333 \mathrm{HI}, 353 \mathrm{HI}, 355 \mathrm{HI}$; MGY3I2HI; PSY397HI/JZP326HI, PSY497HI/JZP428HI; ZOO (excluding ZOO $200 \mathrm{Y} \mathrm{I}, 2 \mathrm{I} 4 \mathrm{YI}, 2 \mathrm{I} 5 \mathrm{HI}, 216 \mathrm{HI}$ )
3. $2.0300+$ series FCEs from: ANA; BCH; BIO; BOT; CSB; EEB; HMB32IHI; HPS $323 \mathrm{HI}, 333 \mathrm{HI}, 353 \mathrm{HI}, 355 \mathrm{HI}$; IMM; MGY; PSL; PSY397HI/JZP326HI, PSY497HI/JZP428HI; ZOO

## Minor program:

(4 full courses or their equivalent)
I. BIOI50YI
2. I. 0 FCE from: $\mathrm{BIO} 250 \mathrm{YI} / 255 \mathrm{YI} ; \mathrm{BIO} / \mathrm{BOT} 25 \mathrm{IYI} ; \mathrm{BIO} /$ ZOO 252YI
3. 2.0 FCEs (I.0 FCE must be at the $300+$ series) from: BIO ; BOT (excluding BOT202YI); CSB (excluding CSB200YI); EEB (excluding EEB202HI, 2I $4 \mathrm{HI}, 215 \mathrm{HI}, 2 \mathrm{I} 6 \mathrm{HI}$ ); ENV234YI; HMB265HI, 32 IHI ; HPS $323 \mathrm{HI}, 333 \mathrm{HI}, 353 \mathrm{HI}$, 355HI; MGY3I2HI; PSY397HI/JZP326HI; PSY497HI/ JZP428HI; ZOO (excluding ZOO200YI, 2I4YI, 2I5HI, 216 HI )

## Botany (Science program)

The Botany Specialist, Major, and Minor programs are administered through the Department of Ecology \& Evolutionary Biology. After completing 4.0 FCEs (four full courses or their equivalent), students in these programs are encouraged to discuss their course selections each year with the Department. Contact: undergrad@eeb.utoronto.ca

Enrolment in programs listed below requires completion of 4.0 FCEs; no minimum GPA is required.

## Specialist program:

( 12 full courses or their equivalent, including at least I. 0400 series FCE)
First Year: BIOI50YI; CHM (I38HI, I39HI)/I5IYI
Higher Years
I. 2.0 FCEs from: $\mathrm{BCH} 2 \mathrm{IOHI} ; \mathrm{CHM} 220 \mathrm{HI}, 247 \mathrm{HI} / 249 \mathrm{HI}$; CSC $108 \mathrm{HI}, 148 \mathrm{HI} ;$ JMBI $70 \mathrm{YI} / \mathrm{MATI} 35 \mathrm{YI} / \mathrm{I} 36 \mathrm{YI} / \mathrm{I} 37 \mathrm{YI}$; PHYIIOYI/I38YI/I40YI; or statistics, EEB/BIO 225HI, STA $220 \mathrm{HI}, 22 \mathrm{IH}, 250 \mathrm{HI}, 255 \mathrm{HI}, 257 \mathrm{HI}, 26 \mathrm{HI}, \mathrm{JBS} 229 \mathrm{HI}$ NOTE: One or more of the two courses selected here could also be taken in First Year
2. 2.5 FCEs: $\mathrm{BIO} 250 \mathrm{YI} / 255 \mathrm{YI} ; \mathrm{BIO} / \mathrm{BOT} 25 \mathrm{YI} ; \mathrm{BIO} 260 \mathrm{HI} /$ HMB265HI
3. I. 0 FCE from: ENV234YI or EEB/BIO $319 \mathrm{HI}, 321 \mathrm{HI}$, $323 \mathrm{HI}, 324 \mathrm{HI}$, EEB $330 \mathrm{HI} / \mathrm{BOT} 300 \mathrm{HI}$, EEB337HI/ BOT307HI
4. 2.0 FCEs from: $\mathrm{BCH} 2 \mathrm{IOHI} ; \mathrm{BIO} 260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI} ; \mathrm{BOT}$ (excluding BOT202YI); CSB $340 \mathrm{HI}, 350 \mathrm{HI}, 35 \mathrm{IYI}, 353 \mathrm{HI}$, $450 \mathrm{HI}, 452 \mathrm{HI}, 459 \mathrm{HI}, 460 \mathrm{HI}$; EEB $304 \mathrm{HI}, 330 \mathrm{HI}, 33 \mathrm{IHI}$, $337 \mathrm{HI}, 340 \mathrm{HI}, 34 \mathrm{IHI}, 428 \mathrm{HI}, 440 \mathrm{HI}$
5. $2.5300+$ series FCEs (at least 1.0 must be 400 -series) from: BOT; CSB $340 \mathrm{HI}, 349 \mathrm{HI}, 350 \mathrm{HI}, 35 \mathrm{IYI}, 353 \mathrm{HI}, 450 \mathrm{HI}$, $452 \mathrm{HI}, 459 \mathrm{HI}, 460 \mathrm{HI}, 472 \mathrm{HI}, 473 \mathrm{HI}, 497 \mathrm{HI} / 498 \mathrm{YI}$, 499 YI ; EEB $30 \mathrm{IHI}, 302 \mathrm{HI}, 303 \mathrm{HI}, 304 \mathrm{HI}, 305 \mathrm{HI}, 306 \mathrm{HI}$, $307 \mathrm{HI}, 308 \mathrm{HI}, 3 \mathrm{I} 9 \mathrm{HI}, 32 \mathrm{IHI}, 323 \mathrm{HI}, 324 \mathrm{HI}, 328 \mathrm{HI}$, $330 \mathrm{HI}, 33 \mathrm{IHI}, 337 \mathrm{HI}, 340 \mathrm{HI}, 34 \mathrm{IHI}, 353 \mathrm{HI}, 355 \mathrm{HI}$, $428 \mathrm{HI}, 440 \mathrm{HI}, 494 \mathrm{YI}, 495 \mathrm{YI}, 497 \mathrm{HI} / 498 \mathrm{YI}, 499 \mathrm{YI}$; HPS $323 \mathrm{HI}, 333 \mathrm{HI}, 353 \mathrm{HI}, 355 \mathrm{HI}$

## Major program:

(8 full courses or their equivalent)
First Year: BIOI50YI; CHM (I38HI, I39HI)/I5IYI; and one course from CSC (108HI, I48HI), JMBI70YI/MATI $35 \mathrm{YI} /$ I36YI/I37YI, PHYIIOYI/I38YI/I40YI
Higher Years:
I. 2.0 FCEs: $\mathrm{BIO} 250 \mathrm{YI} / 255 \mathrm{YI}$; BIO/BOT 25 IYI
2. 1.0 FCE from: $\mathrm{BCH} 210 \mathrm{HI} ; \mathrm{BIO} 260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}$; BOT (excluding BOT202YI); CSB $340 \mathrm{HI}, 350 \mathrm{HI}, 35 \mathrm{IYI}, 353 \mathrm{HI}$, $372 \mathrm{HI}, 373 \mathrm{HI}, 450 \mathrm{HI}, 452 \mathrm{HI}, 459 \mathrm{HI}, 460 \mathrm{HI}$; EEB 304 HI , $330 \mathrm{HI}, 33 \mathrm{IHI}, 337 \mathrm{HI}, 340 \mathrm{HI}, 34 \mathrm{IHI}, 428 \mathrm{HI}, 440 \mathrm{HI}$; ENV234YI
3. $2.0300+$ series FCEs from: BOT; CSB $340 \mathrm{HI}, 349 \mathrm{HI}$, $350 \mathrm{HI}, 35 \mathrm{IYI}, 353 \mathrm{HI}, 450 \mathrm{HI}, 452 \mathrm{HI}, 459 \mathrm{HI}, 460 \mathrm{HI}$, $472 \mathrm{HI}, 473 \mathrm{HI}$; EEB $30 \mathrm{HI}, 302 \mathrm{HI}, 303 \mathrm{HI}, 304 \mathrm{HI}, 305 \mathrm{HI}$, $306 \mathrm{HI}, 307 \mathrm{HI}, 308 \mathrm{HI}, 3 \mathrm{I} 9 \mathrm{HI}, 32 \mathrm{IHI}, 323 \mathrm{HI}, 324 \mathrm{HI}$, $328 \mathrm{HI}, 330 \mathrm{HI}, 33 \mathrm{IHI}, 337 \mathrm{HI}, 340 \mathrm{HI}, 34 \mathrm{IHI}, 353 \mathrm{HI}$, $355 \mathrm{HI}, 428 \mathrm{HI}, 440 \mathrm{HI} ; \mathrm{HPS} 323 \mathrm{HI}, 333 \mathrm{HI}, 353 \mathrm{HI}, 355 \mathrm{HI}$

## Minor program:

(4 full courses or their equivalent)
I. BIOI50YI; BIO/BOT $25 I \mathrm{YI}$
2. I. 0 FCE from: $\mathrm{BIO} 250 \mathrm{YI} / 255 \mathrm{YI} ; \mathrm{BIO} 260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}$; BOT (excluding BOT202YI); CSB $340 \mathrm{HI}, 349 \mathrm{HI}, 350 \mathrm{HI}$, $35 \mathrm{IYI}, 353 \mathrm{HI}, 450 \mathrm{HI}, 452 \mathrm{HI}, 459 \mathrm{HI}, 460 \mathrm{HI}, 472 \mathrm{HI}$, 473 HI ; EEB $30 \mathrm{IHI}, 302 \mathrm{HI}, 303 \mathrm{HI}, 304 \mathrm{HI}, 305 \mathrm{HI}, 306 \mathrm{HI}$, $307 \mathrm{HI}, 308 \mathrm{HI}, 3 \mathrm{I} 9 \mathrm{HI}, 32 \mathrm{IHI}, 323 \mathrm{HI}, 324 \mathrm{HI}, 328 \mathrm{HI}$, $330 \mathrm{HI}, 33 \mathrm{IHI}, 337 \mathrm{HI}, 340 \mathrm{HI}, 34 \mathrm{IHI}, 353 \mathrm{HI}, 355 \mathrm{HI}$, $428 \mathrm{HI}, 440 \mathrm{HI} ;$ ENV 234 Y ; HPS $323 \mathrm{HI}, 333 \mathrm{HI}, 353 \mathrm{HI}$, 355 HI
3. I. $0300+$ series FCEs from: BOT (excluding BOT202YI); CSB $340 \mathrm{HI}, 350 \mathrm{HI}, 35 \mathrm{IYI}, 353 \mathrm{HI}, 450 \mathrm{HI}, 452 \mathrm{HI}, 459 \mathrm{HI}$, 460 HI ; EEB $304 \mathrm{HI}, 330 \mathrm{HI}, 33 \mathrm{HI}, 337 \mathrm{HI}, 340 \mathrm{HI}, 34 \mathrm{IHI}$, $428 \mathrm{HI}, 440 \mathrm{HI}$

## Zoology (Science program)

The Zoology Specialist, Major, and Minor programs are administered through the Department of Cell \& Systems Biology. After completing 4.0 FCEs (four full courses or their equivalent), students in these programs are encouraged to discuss their course selections each year with the Department. Contact: undergrad@csb.utoronto.ca
Enrolment in programs listed below requires completion of 4.0 FCEs; no minimum GPA is required.

## Specialist program:

(13 full courses or their equivalent, including at least 1.0400 series FCE)
First Year: BIOI50YI; CHM (138HI, I39HI)/I5IYI; JMBI70YI/ MATI35YI/I36YI/I37YI/I57YI (MATI35YI may be required for certain courses)
Higher Years
I. 2.5 FCEs from: BIO250YI/255YI; BIO/ZOO 252YI; $\mathrm{BIO} 260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}$
2. I. 0 FCE from: CHM $220 \mathrm{HI}, 247 \mathrm{HI} / 249 \mathrm{HI}$; or statistics, EEB/BIO 225 HI, PSY $20 \mathrm{IHI}, 202 \mathrm{HI}$, STA $220 \mathrm{HI}, 22 \mathrm{IHI}$, $250 \mathrm{HI}, 255 \mathrm{HI}, 257 \mathrm{HI}, 26 \mathrm{IHI}, \mathrm{JBS} 229 \mathrm{HI}$
3. I. 0 FCE from: CHM $220 \mathrm{HI}, 247 \mathrm{HI} / 249 \mathrm{HI}$; MAT $235 \mathrm{YI} /$ 237YI; PHYIIOYI/I38YI/I40YI; PSYIOOHI/I00YI; or statistics, EEB/BIO 225 HI, PSY $20 \mathrm{IHI}, 202 \mathrm{HI}$, STA 220 HI , $22 \mathrm{IHI}, 250 \mathrm{HI}, 255 \mathrm{HI}, 257 \mathrm{HI}, 26 \mathrm{HI}, \mathrm{JBS} 229 \mathrm{HI}$ NOTE: Some of the courses selected here could also be taken in First Year
4. I. $0300+$ series FCE from: CSB $325 \mathrm{HI}, 327 \mathrm{HI}, 328 \mathrm{HI}$, $329 \mathrm{HI}, 330 \mathrm{HI}, 33 \mathrm{HI}, 332 \mathrm{HI}, 344 \mathrm{HI}, 345 \mathrm{HI}, 346 \mathrm{HI}$, $347 \mathrm{HI}, 357 \mathrm{HI}, 425 \mathrm{HI}, 429 \mathrm{HI}, 430 \mathrm{HI}, 457 \mathrm{HI}, 482 \mathrm{YI}$, $485 \mathrm{YI}, 486 \mathrm{HI} ;$ EEB $309 \mathrm{HI}, 322 \mathrm{HI}, 356 \mathrm{HI}, 360 \mathrm{HI}, 36 \mathrm{IHI}$, $384 \mathrm{HI}, 386 \mathrm{HI}, 388 \mathrm{HI}, 389 \mathrm{HI} ; \mathrm{ZOO}$
5. 4.5 FCEs (at least 2.0 must be $300+$ series and I .0400 series) from: ANT $436 \mathrm{HI} ; \mathrm{BIO} ; \mathrm{CSB} 325 \mathrm{HI}, 327 \mathrm{HI}, 328 \mathrm{HI}$, $329 \mathrm{HI}, 330 \mathrm{HI}, 33 \mathrm{HI}, 332 \mathrm{HI}, 344 \mathrm{HI}, 345 \mathrm{HI}, 346 \mathrm{HI}$, $347 \mathrm{HI}, 349 \mathrm{HI}, 357 \mathrm{HI}, 425 \mathrm{HI}, 429 \mathrm{HI}, 430 \mathrm{HI}, 457 \mathrm{HI}$, $472 \mathrm{HI}, 473 \mathrm{HI}, 482 \mathrm{YI}, 485 \mathrm{YI}, 486 \mathrm{HI}, 497 \mathrm{HI} / 498 \mathrm{YI}$, 499 YI ; EEB $263 \mathrm{YI}, 265 \mathrm{YI}, 30 \mathrm{IHI}, 302 \mathrm{HI}, 303 \mathrm{HI}, 305 \mathrm{HI}$, $306 \mathrm{HI}, 307 \mathrm{HI}, 308 \mathrm{HI}, 309 \mathrm{HI}, 3 \mathrm{I} 9 \mathrm{HI}, 32 \mathrm{IHI}, 322 \mathrm{HI}$, $323 \mathrm{HI}, 324 \mathrm{HI}, 328 \mathrm{HI}, 353 \mathrm{HI}, 355 \mathrm{HI}, 356 \mathrm{HI}, 360 \mathrm{HI}$, $36 \mathrm{HI}, 362 \mathrm{HI}, 365 \mathrm{HI}, 370 \mathrm{HI}, 375 \mathrm{HI}, 384 \mathrm{HI}, 386 \mathrm{HI}$, $388 \mathrm{HI}, 389 \mathrm{HI}, 459 \mathrm{HI}, 460 \mathrm{HI}, 46 \mathrm{HI}, 462 \mathrm{HI}, 465 \mathrm{HI}$, $468 \mathrm{HI}, 469 \mathrm{HI}, 47 \mathrm{HI}, 494 \mathrm{YI}, 495 \mathrm{YI}, 496 \mathrm{YI}, 497 \mathrm{HI} / 498 \mathrm{YI}$, 499YI; ENV234YI; HMB32IHI; HPS 323HI, 333HI,
$353 \mathrm{HI}, 355 \mathrm{HI}$; MGY3I2HI; PSY397HI/JZP326HI, PSY497/
JZP428HI; ZOO (excluding ZOO 200YI, 2I4YI, 215 HI , 216 HI )
NOTE:The 5.5 FCEs in 4. and 5. above must include at least 78 hours of labs; one field course counts as 52 hours.

## Major program:

(8 full courses or their equivalent)
First Year: BIOI50YI; CHM (I38HI, I39HI)/I5IYI
Higher Years
I. 2.0 FCEs: BIO250YI/255YI; BIO/ZOO 252 YI
2. I. 0 FCE from: CHM $220 \mathrm{HI}, 247 \mathrm{HI} / 249 \mathrm{HI}$; JMBI $70 \mathrm{YI} /$ MATI $35 \mathrm{YI} / I 36 \mathrm{YI} / \mathrm{I} 37 \mathrm{YI} / I 57 \mathrm{YI}$; or statistics, EEB/BIO 225 HI, PSY $20 \mathrm{IHI}, 202 \mathrm{HI}$, STA $220 \mathrm{HI}, 22 \mathrm{IHI}, 250 \mathrm{HI}$, $255 \mathrm{HI}, 257 \mathrm{HI}, 26 \mathrm{HI}, \mathrm{JBS} 229 \mathrm{HI}$
NOTE: One of the courses selected here could also be taken in First Year
3. 2.0 FCEs (at least $I .0$ must be $300+$ series) from: ANT $436 \mathrm{HI} ; \mathrm{BIO} 260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI} ; \mathrm{CSB} 325 \mathrm{HI}, 327 \mathrm{HI}$, $328 \mathrm{HI}, 329 \mathrm{HI}, 330 \mathrm{HI}, 33 \mathrm{IHI}, 332 \mathrm{HI}, 344 \mathrm{HI}, 345 \mathrm{HI}$, $346 \mathrm{HI}, 347 \mathrm{HI}, 349 \mathrm{HI}, 357 \mathrm{HI}, 425 \mathrm{HI}, 429 \mathrm{HI}, 430 \mathrm{HI}$, $457 \mathrm{HI}, 472 \mathrm{HI}, 473 \mathrm{HI}, 482 \mathrm{YI}, 485 \mathrm{YI}, 486 \mathrm{HI}$; EEB 263 YI , $265 \mathrm{YI}, 30 \mathrm{IHI}, 302 \mathrm{HI}, 303 \mathrm{HI}, 305 \mathrm{HI}, 306 \mathrm{HI}, 307 \mathrm{HI}$, $308 \mathrm{HI}, 309 \mathrm{HI}, 3 \mathrm{I} 9 \mathrm{HI}, 32 \mathrm{IHI}, 322 \mathrm{HI}, 323 \mathrm{HI}, 324 \mathrm{HI}$, $328 \mathrm{HI}, 353 \mathrm{HI}, 355 \mathrm{HI}, 356 \mathrm{HI}, 360 \mathrm{HI}, 36 \mathrm{HI}, 362 \mathrm{HI}$, $365 \mathrm{HI}, 370 \mathrm{HI}, 375 \mathrm{HI}, 384 \mathrm{HI}, 386 \mathrm{HI}, 388 \mathrm{HI}, 389 \mathrm{HI}$, $459 \mathrm{HI}, 460 \mathrm{HI}, 46 \mathrm{HI}, 462 \mathrm{HI}, 465 \mathrm{HI}, 468 \mathrm{HI}, 469 \mathrm{HI}$, $47 \mathrm{IHI} ;$ ENV234YI; HMB32IHI; HPS $323 \mathrm{HI}, 333 \mathrm{HI}$, $353 \mathrm{HI}, 355 \mathrm{HI}$; MGY3I2HI; PSY397HI/JZP326HI, PSY497HIZP428HI; ZOO (excluding ZOO 200YI, 2I4YI, $215 \mathrm{HI}, 216 \mathrm{HI})$
4. I. $0300+$ series FCE from: CSB $325 \mathrm{HI}, 327 \mathrm{HI}, 328 \mathrm{HI}$, $329 \mathrm{HI}, 330 \mathrm{HI}, 33 \mathrm{IHI}, 332 \mathrm{HI}, 344 \mathrm{HI}, 345 \mathrm{HI}, 346 \mathrm{HI}$, $347 \mathrm{HI}, 357 \mathrm{HI}, 425 \mathrm{HI}, 429 \mathrm{HI}, 430 \mathrm{HI}, 457 \mathrm{HI}, 482 \mathrm{YI}$, $485 \mathrm{YI}, 486 \mathrm{HI} ;$ EEB $309 \mathrm{HI}, 322 \mathrm{HI}, 356 \mathrm{HI}, 360 \mathrm{HI}, 36 \mathrm{IHI}$, $384 \mathrm{HI}, 386 \mathrm{HI}, 388 \mathrm{HI}, 389 \mathrm{HI}$; ZOO

## Minor program:

(4 full courses or their equivalent)
I. BIOI50Y
2. I. 0 FCE from: $\mathrm{BIO} 250 \mathrm{YI} / 255 \mathrm{YI} ; \mathrm{BIO} / \mathrm{ZOO} 252 \mathrm{YI}$
3. I. 0 FCE from: $\mathrm{BIO} 260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}$; CSB $325 \mathrm{HI}, 327 \mathrm{HI}$, $328 \mathrm{HI}, 329 \mathrm{HI}, 330 \mathrm{HI}, 33 \mathrm{IHI}, 332 \mathrm{HI}, 344 \mathrm{HI}, 345 \mathrm{HI}$, $346 \mathrm{HI}, 347 \mathrm{HI}, 349 \mathrm{HI}, 357 \mathrm{HI}, 425 \mathrm{HI}, 429 \mathrm{HI}, 430 \mathrm{HI}$, $457 \mathrm{HI}, 472 \mathrm{HI}, 473 \mathrm{HI}, 482 \mathrm{YI}, 485 \mathrm{YI}, 486 \mathrm{HI}$; EEB 263 YI , $265 \mathrm{YI}, 30 \mathrm{HI}, 302 \mathrm{HI}, 303 \mathrm{HI}, 305 \mathrm{HI}, 306 \mathrm{HI}, 307 \mathrm{HI}$, $308 \mathrm{HI}, 309 \mathrm{HI}, 3 \mathrm{I} 9 \mathrm{HI}, 32 \mathrm{IHI}, 322 \mathrm{HI}, 323 \mathrm{HI}, 324 \mathrm{HI}$, $328 \mathrm{HI}, 353 \mathrm{HI}, 355 \mathrm{HI}, 356 \mathrm{HI}, 360 \mathrm{HI}, 36 \mathrm{HI}, 362 \mathrm{HI}$, $365 \mathrm{HI}, 370 \mathrm{HI}, 375 \mathrm{HI}, 384 \mathrm{HI}, 386 \mathrm{HI}, 388 \mathrm{HI}, 389 \mathrm{HI}$, $459 \mathrm{HI}, 460 \mathrm{HI}, 46 \mathrm{IHI}, 462 \mathrm{HI}, 465 \mathrm{HI}, 468 \mathrm{HI}, 469 \mathrm{HI}$, $47 \mathrm{IHI} ;$ ENV $234 \mathrm{YI} ; \mathrm{HMB} 32 \mathrm{IHI}, \mathrm{HPS} 323 \mathrm{HI}, 333 \mathrm{HI}$, $353 \mathrm{HI}, 355 \mathrm{HI} ; \mathrm{MGY} 3 \mathrm{I} 2 \mathrm{HI} ; \mathrm{ZOO}$ (excluding ZOO 200 YI , $214 \mathrm{YI}, 2 \mathrm{I} 5 \mathrm{HI}, 216 \mathrm{HI})$
4. I. $0300+$ series FCE from: CSB $325 \mathrm{HI}, 327 \mathrm{HI}, 328 \mathrm{HI}$, $329 \mathrm{HI}, 330 \mathrm{HI}, 33 \mathrm{IHI}, 332 \mathrm{HI}, 344 \mathrm{HI}, 345 \mathrm{HI}, 346 \mathrm{HI}$, $347 \mathrm{HI}, 349 \mathrm{HI}, 357 \mathrm{HI}, 425 \mathrm{HI}, 429 \mathrm{HI}, 430 \mathrm{HI}, 457 \mathrm{HI}$, $482 \mathrm{YI}, 485 \mathrm{YI}, 486 \mathrm{HI} ;$ EEB $309 \mathrm{HI}, 322 \mathrm{HI}, 356 \mathrm{HI}, 360 \mathrm{HI}$, $36 \mathrm{HI}, 384 \mathrm{HI}, 386 \mathrm{HI}, 388 \mathrm{HI}, 389 \mathrm{HI} ; \mathrm{ZOO}$

Other Biology Programs:
Behaviour: see Ecology \& Evolutionary Biology
Biogeography: see Geography
Biology. Humanisee Human Biology
Biophysics: see Physics
Cell Biology: see Cell \& Systems Biology
Comparative Animal Physiology: see Cell \& Systems Biology
Developmental Biology: see Cell \& Systems Biology

Ecology: see Ecology \& Evolutionary Biology
Environmental Biology: see Ecology \&
Evolutionary Biology
Evolutionary Biology: see Ecology \& Evolutionary Biology

Molecular Plant Biology: see Cell \& Systems Biology

## Biology Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), all BIO courses are classified as SCIENCE courses.
Biology courses are offered by the Departments of Cell \& Systems Biology and Ecology \& Evolutionary Biology. The courses below have BIO designators. Other biology courses have either CSB or EEB designators.

BIOI50YI Organisms in Their Environment See Ecology \& Evolutionary Biology
BIO250YI Cell and Molecular Biology
See Cell \& Systems Biology
BIO25IYI Biology of Plants and Micro-organisms (formerly BOT25IYI)
See Ecology \& Evolutionary Biology
BIO252YI Animal Physiology: Cells to Systems
(formerly ZOO252YI)
See Cell \& Systems Biology
BIO255YI Cell and Molecular Biology with Advanced Laboratory
See Cell \& Systems Biology
BIO260HI Concepts in Genetics
See Cell \& Systems Biology

## Life Sciences: Botany

The departments of Botany and Zoology were disestablished as of July I, 2006, and its faculty, programs, and courses have become part of the new departments of Cell \& Systems Biology (CSB), and Ecology \& Evolutionary Biology (EEB). The Biology, Botany, and Zoology programs are listed under Biology Please see the sections for CSB and EEB in this Calendar for information concerning their programs and courses.

## Joint Programs (see Biology)

Biology
Botany
Zoology

## Cell \& Systems Biology Programs

Cell Biology
Comparative Animal Physiology
Developmental Biology
Molecular Plant Biology

## Ecology \& Evolutionary Biology Programs

Behaviour
Ecology
Ecology \& Evolutionary Biology
Environmental Biology
Evolutionary Biology

## Faculty

## Professors Emeriti

D.G. Butler, M Sc, Ph D, D Sc, FRSA (ZOO)
L. Butler, MSA, Ph D (ZOO)
G.M. Clark, M Sc, Ph D (ZOO)
N.G. Dengler, MS, Ph D (BOT)
S.S. Desser, M Sc, Ph D (ZOO)
W.G. Friend, B Sc, Ph D (W) (ZOO)
M.C. Heath, B Sc, Ph D, FRSC (BOT)
J.A. Hellebust, MA, Ph D (BOT)
V.J. Higgins, MS, Ph D (BOT)
R.L. Jefferies, B Sc, Ph D (BOT)
R.A. Liversage, AM, Ph D (ZOO)
Y. Masui, M Sc, Ph D (ZOO)
N. Mrosovsky, BA, PhD (ZOO)
B.H. Pomeranz, MD, CM, Ph D (ZOO)
T.E. Reed, BA, Ph D (ZOO)
B.I. Roots, B Sc, Ph D, D Sc, FRSC (ZOO)
I. Tallan, B Sc, Ph D (ZOO)
J.P.Williams, B Sc, Ph D (BOT)
$\dagger$ M.P.Winsor, M Phil, Ph D (V) (ZOO)
†.H. Youson, M Sc, Ph D (UTSC) (ZOO)
A.M. Zimmerman, MS, Ph D (ZOO)

Professor and Chair of the Department
D.R. Goring, M Sc, Ph D

## Professors and Associate Chairs

S.L.Varmuza, MS, Ph D
U. Tepass, M Sc, Ph D

Associate Professor and Associate Chair
M.M. Campbell, B Sc, Ph D

## Professors

M.G.AbouHaidar, M Sc, Ph D
$\dagger$ J.B.Anderson, BA, Ph D (UTM)
F.M. Barrett, M Sc, Ph D
T. Berleth, Diplom, Ph D
$\dagger$ R. Boonstra, B Sc, Ph D (UTSC)
I.R. Brown, B Sc, Ph D (UTSC)
J.R. Coleman, B Sc, Ph D (U)
$\dagger$ E. Edwards, M A Sc, Ph D
G.S. Espie, B Sc, Ph D (UTM)
$\dagger$ J.H. Fullard, M Sc, Ph D (UTM)
P.A. Horgen, MS, Ph D (UTM)
$\dagger$ L.M. Kohn, B Sc, Ph D (UTM)
A.B. Lange, BS, Ph D (UTM)
E.W. Larsen, M Sc, Ph D
P. McCourt, B Sc, Ph D
D.H. O'Day, M Sc, Ph D (UTM)
I. Orchard, B Sc, Ph D (UTM)
J.J.B. Smith, MA, Ph D (N)
$\dagger$ M.B. Sokolowski, B Sc, Ph D, FRSC (UTM)
$\dagger$ P. Thompson, BA, MA, Ph D (V)
S.S. Tobe, M Sc, Ph D, FRSC
$\dagger$ F.J.Vaccarino, M Sc, Ph D

## Associate Professors

$\dagger$ T.J. Brown, BS, Ph D
L.T. Buck, B Sc, Ph D
$\dagger$ R.R. Fulthorpe, M Sc, Ph D (UTSC)
D. Godt, Dipl in Bio, Ph D
D.S. Guttman, B Sc, Ph D
C.A. Hasenkampf, MS, Ph D (UTSC)
$\dagger$ H.J. Kronzucker, B Sc, Ph D (UTSC)
$\dagger$ M. Locke, B Sc, BA, Ph D
D.A. Lovejoy, B Sc, Ph D
$\dagger$ A.C. Mason, M Sc, Ph D (UTSC)
$\dagger$ J.-M. Moncalvo, M Sc, Ph D
$\dagger$ M.R. Ralph, B Sc, Ph D
S. Reid, B Sc, Ph D (UTSC)
C.D. Riggs, B Sc, Ph D (UTSC)
M.J. Ringuette, B Sc, Ph D
P.A. Romans, M Sc, Ph D
R. Stephenson, B Sc, Ph D
G.C.Vanlerberghe, B Sc, Ph D (UTSC)
J.T.Westwood, M Sc, Ph D (UTM)
R. Winklbauer, Dipl in Bio, Ph D
$\dagger$ J.S. Yeomans, BA, Ph D

## Assistant Professors

M. Aarts, M Sc, Ph D (UTSC)
A. Bruce, BA, Ph D
B. Chang, AB, Ph D
D. Christendat, B Sc, Ph D
$\dagger$ A. Cutter, B Sc, Ph D
D. Desveaux, M Sc, Ph D
S. Gazzarrini, M Sc, Ph D (UTSC)
T.J. Harris, B Sc, Ph D
$\dagger$ R. Harrison, M Sc, Ph D (UTSC)
$\dagger$ J. Levine, BA, Ph D (UTM)
$\dagger$ N.R. Lovejoy, M Sc, Ph D (UTSC)
J.E. Nash, M Res, Ph D (UTSC)
J. Peever, M Sc, Ph D
N.J. Provart, M Sc, Ph D
C.D. Riggs, B Sc, Ph D (UTSC)
B.A. Stewart, M Sc, Ph D (UTM)
$\dagger$ J.R. Stinchcombe, BA, Ph D
V.Tropepe, B Sc, Ph D
M. Woodin, M Sc, Ph D
K. Yoshioka, MS, Ph D

## Lecturer

M. Neumann, M Sc, Ph D
$\dagger$ Cross-appointed
The new Department of Cell and Systems Biology, with its sibling department, Ecology and Evolutionary Biology, has arisen from a reorganization of the previous departments of Botany and Zoology. The study of life, biology, has been transformed in recent decades by powerful new ways of asking fundamental questions about how living organisms work. In particular, molecular approaches are revealing both the incredible complexity of organization at the cellular level, and the underlying principles drawn from chemistry, physics and information science that will eventually enable us to understand that complexity.

## Life Sciences: Cell and Systems Biology

The Department of Cell and Systems Biology brings together biologists who study life at the level of molecules to functioning individual organisms. Cell Biology is a vibrant and broad discipline that seeks to understand the underlying molecular processes that control cell behaviour in a developmental and physiological context. In this broad sense, cell biology comprises molecular biology, developmental biology, genetics and physiology and their sub-disciplines. Systems biology is an exciting new discipline that studies dynamic networks in biological systems through the integration of large datasets arising from the genomics revolution. Computer modeling and bioinformatics are integrated with the study of detailed information about genomes (genomics), the temporal and spatial distribution of all gene transcripts (transcriptomics), cellular proteins and their physical interactions (proteomics), and small molecules that cells assimilate or synthesise (metabolomics).

## Student Counseling and Enquiries:

Associate Chair (Undergraduate): Professor S.Varmuza (416-9782759).

Contact the Undergraduate Office, Room 424 in the Ramsay Wright Laboratories (416-978-3477) and consult the departmental web site, www.csb.utoronto.ca.

## Cell and Systems Biology Programs

Bioinformatics and Computational Biology: see Biochemistry

## Biology: see Biology

## Botany: see Biology

## Cell Biology (Science program)

Enrolment in this program is limited, and requires a minimum CGPA of 2.7. Enrolment also requires the completion of four courses, including BIO I50YI; CHM (I38HI, I39HI)/I5IYI;JMB I70YI/MAT I35YI/I36YI/I37YI/I57YI.

## Specialist program:

(12.5 full courses or their equivalent, including at least one 400series course)

First Year:
BIO I50YI; CHM (I38HI, I39HI)/I5IYI;JMB I70YI/MAT
I35YI/I36YI/I37YI/I57YI; PHY IIOY/I38YI/I40YI
Higher Years:
I. BIO $250 \mathrm{YI} / 255 \mathrm{YI}, 252 \mathrm{YI}, \mathrm{BIO} 260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}$; BCH 210 HI ; CSB 349HI
2. CSB $330 \mathrm{HI} / 350 \mathrm{HI}, \mathrm{CSB} 33 \mathrm{IHI} / \mathrm{BCH} 304 \mathrm{HI}, \mathrm{CSB} 428 \mathrm{HI}$
3. 0.5 FCE from the following: $\mathrm{BCH} 422 \mathrm{HI}, 426 \mathrm{HI}, 445 \mathrm{HI}, \mathrm{CSB}$ $327 \mathrm{HI}, 347 \mathrm{HI}$
4. 3.0 FCEs from the following: $\mathrm{BCH} 440 \mathrm{HI}, \mathrm{BCH} 44 \mathrm{I} \mathrm{HI} / \mathrm{CSB}$ $472 \mathrm{HI}, \mathrm{CSB} 299 \mathrm{YI}, 328 \mathrm{HI}, 332 \mathrm{HI}, 340 \mathrm{HI}, 35 \mathrm{YI}, 357 \mathrm{HI}$, $429 \mathrm{HI}, 430 \mathrm{HI} 450 \mathrm{HI}, 452 \mathrm{HI}, 458 \mathrm{HI}, 459 \mathrm{HI}, 473 \mathrm{HI}$, 497HI/498YI/499YI

## Comparative Animal Physiology (Science program)

Specialist program
(12 or 12.5 full courses or their equivalent, including at least one 400-series course)
First Year
BIO I50YI; CHM (I38HI, I39HI)/I5IYI; JMB I70YI/MAT I35YI/I37YI; PHY IIOYI/I38YI/I40YI
Higher Years:
I. $\mathrm{BIO} 250 \mathrm{YI} / 255 \mathrm{YI}, 252 \mathrm{YI}, \mathrm{BIO} 260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}$ (BIO 260 HI is recommended); CHM $(220 \mathrm{HI}, 247 \mathrm{HI}) / 249 \mathrm{HI}$
2. STA 220 HI
3. BCH 210 HI
4. CSB $345 \mathrm{HI} / 346 \mathrm{HI} / \mathrm{PSY} 397 \mathrm{HI} ; \mathrm{CSB} 325 \mathrm{HI} / 344 \mathrm{HI}$; CSB 332HI; CSB 347HI
5. CSB $(425 \mathrm{HI}, 430 \mathrm{HI}) / 485 \mathrm{Y}$ I
6. One full course equivalent from: $\mathrm{BIO} 25 \mathrm{IYI} / \mathrm{BCH} 370 \mathrm{HI} / \mathrm{CSB}$ $349 \mathrm{HI} / 497 \mathrm{HI} / 498 \mathrm{YI} / \mathrm{PSL} 302 \mathrm{YI} / 372 \mathrm{HI} / \mathrm{PSY} 497 \mathrm{HI}$

## Developmental Biology (Science program)

Enrolment in this program is limited, and requires a minimum CGPA of 2.5. Enrolment also requires the completion of four courses, including BIO $150 \mathrm{YI} ; \mathrm{CHM}(138 \mathrm{HI}, 139 \mathrm{HI}) / I 5 \mathrm{IYI} ; \mathrm{JMB}$ I70YI/MAT I35YI/I36YI/I37YI/I57YI.

## Specialist program:

(12.5 full courses or their equivalent, including at least one 400series course)
First Year:
BIO I50YI; CHM (I38HI, I39HI)/I5IYI;JMB I70YI/MAT I $35 \mathrm{Y} I / I 36 \mathrm{Y} I / / 37 Y \mathrm{Y} / \mathrm{I} 57 \mathrm{Y} \mathrm{I}$
Higher Years:
I. BCH 210 HI ; BIO $250 \mathrm{YI} / 255 \mathrm{YI}, 25 \mathrm{Y}$ I/ $252 \mathrm{YI}, 260 \mathrm{HI} ; \mathrm{CHM}$
$220 \mathrm{HI} / 247 \mathrm{HI} / 249 \mathrm{HI}$
2. CSB 349 HI
3. CSB $328 \mathrm{HI}, 340 \mathrm{HI}$
4. 2.5 (or $3.5^{*}$ ) courses from:ANA $300 \mathrm{YI}, 30 \mathrm{IHI} ; \mathrm{BCH} 304 \mathrm{HI}$, $340 \mathrm{HI}, 370 \mathrm{HI}, 425 \mathrm{HI}, 426 \mathrm{HI}$; CSB $327 \mathrm{HI}, 329 \mathrm{HI}, 330 \mathrm{HI}$, $33 \mathrm{IHI}, 344 \mathrm{HI}, 350 \mathrm{HI}, 425 \mathrm{HI}, 450 \mathrm{HI}, 459 \mathrm{HI} 460 \mathrm{HI}, 472 \mathrm{HI}$, 473 HI ; EEB 3 IOHI, $34 \mathrm{IHI}, 460 \mathrm{HI}$,; IMM $334 \mathrm{YI} / 335 \mathrm{YI}, 429 \mathrm{HI}$; JBI $428 \mathrm{HI} ;$ MGY $3 \mathrm{I} 2 \mathrm{HI}, 425 \mathrm{HI}, 428 \mathrm{H}, 45 \mathrm{IHI}, 452 \mathrm{HI}, 470 \mathrm{HI}$; PSL 303 Y , 420HI
5. I. 0 (or $2.0^{*}$ ) courses from CSB $429 \mathrm{HI}, 430 \mathrm{HI}, 458 \mathrm{H}, 46 \mathrm{IH}$, $482 \mathrm{YI}, 498 \mathrm{YI}$; MGY 480YI

* Requirements 4 and 5 must include a total of at least 4.5 full courses


## Molecular Plant Biology (Science program)

## Specialist program:

(II. 5 full courses or their equivalent, including at least one 400series course)

Enrolment in this program requires completion of four courses, including BIO $150 \mathrm{YI}, \mathrm{CHM}(138 \mathrm{HI}, \mathrm{I} 39 \mathrm{HI}) / \mathrm{I} 5 \mathrm{IYI}$ and JMB I70YI/MAT I35YI/I36YI/I37YI; no minimum GPA is required
First Year:
BIO I50YI; CHM (I38HI, I39HI)/I5IYI; JMB I70YI/MAT I35YI/I36YI/I37YI
Second Year:
BCH $210 \mathrm{HI}, \mathrm{BIO} 250 \mathrm{YI} / 255 \mathrm{YI}, 25 \mathrm{Y}$ I, 260 HI ; CHM 220HI, 247HI
Third and Fourth Years:
I. CSB $349 \mathrm{HI}, 459 \mathrm{HI}, 460 \mathrm{HI}$
2. 3.0 courses CSB $340 \mathrm{HI}, 350 \mathrm{HI}, 35 \mathrm{IYI}, 450 \mathrm{HI}, 452 \mathrm{HI}$, $472 \mathrm{HI}, 473 \mathrm{HI}, 497 \mathrm{HI}, 498 \mathrm{YI}, 499 \mathrm{YI}$; EEB $33 \mathrm{IHI}, 34 \mathrm{IHI}$, 497HI/498YI/499YI
NOTE: no Molecular Plant Biology Major program exists; therefore, a student may qualify for a Botany major after third year.

## Neuroscience: see Life Sciences: Human Biology

## Zoology: see Biology

## Cell and Systems Biology Courses

For Distribution Requirement purposes, all BIO and CSB courses are classified as SCIENCE courses (see page 27).

## CSB200YI Current Topics in Molecular 52L, 26P Biology

This course is intended to provide non-science students with an understanding of basic concepts in molecular biology to allow them to explore, and analyze current scientific issues and controversies covered in the media and relevant to society at large.
This course counts as a Science Distribution Requirement for students in all years and disciplines; particularly suitable for Humanities and Social Science students.
Exclusion: BIO250YI/255YI

## BIO250YI Cell and Molecular Biology 52L, 36P

An introduction to the structure and function of cells at the molecular level: key cellular macromolecules; transfer of genetic information; cell structure and function; cellular movement and division; modern investigative techniques. Consult web page for the most current information: http://bio250y.chass.utoronto.ca/ Exclusion: BIO255YI
Prerequisite: BIOI50YI, CHM (I38HI, I39HI)/I5IYI
Recommended preparation: BCH 2 IOHI (taken concurrently or previously)

## BIO252YI Animal Physiology: Cells to 52L, I8P Systems <br> (formerly ZOO 252YI)

The main ideas of physiology and the contribution of experimentation to our understanding of life processes. Uses examples from throughout the animal kingdom, and includes the physiology of nervous, muscular, sensory and endocrine systems, homeostasis and control mechanisms, respiration, blood circulation, thermoregulation, and bioenergetics.
Exclusion: ZOO 252YI
Prerequisite: BIOI50YI

## BIO255YI Cell and Molecular Biology 52L, 36P with Advanced Laboratory

An introduction to the structure and function of cells at the molecular level: key cellular macromolecules; transfer of genetic information; cell structure and function; cellular movement and division. The Enhanced Laboratory provides the opportunity for greater laboratory skill development in modern investigative techniques and is intended for students interested in conducting their own laboratory research.
Exclusion: BIO250YI
Prerequisite: BIO I50YI, CHM (I38HI, I39HI)/I5IYI, cGPA 3.0
Recommended preparation: BCH 2 IOHI (taken concurrently or previously)

BIO260HI Concepts in Genetics 39L, I3T
This is a problem based course which discusses classical, molecular, developmental, and population genetics and genomics with emphasis on model organisms for genetic analysis.
Exclusion: HMB265HI
Prerequisite: BIO 150 Y I
Co-requisite: $\mathrm{BIO} 250 \mathrm{YI} / 255 \mathrm{YI}$

## CSB299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.
CSB3IOHI Crustacean Aquaculture in TBA
Thailand: Physiological and
Molecular Approaches
(formerly BIO 310HI)
Successful farming of tiger shrimp faces a number of biological, environmental and economic challenges. Some of these challenges are being met by gathering information pertaining to nutrition, growth, reproduction and disease resistance. During two weeks of field time in Thailand, students will learn the basic techniques in crustacean aquaculture and undertake individual projects related to these areas by using physiological and molecular biological techniques. Students must attend a one-day orientation in Toronto in May.
Exclusion: BIO 310 HI
Prerequisite: BIO 250YI/255YI, 252YI
CSB325HI Endocrine Physiology
(formerly ZOO 325HI)
The regulation of physiological processes by hormones and other signalling molecules in chordates. An integrated genes-toenvironment approach is used to examine aspects of hormonal evolution, physiological information flow, behaviour and neuroendocrinology, and xenobiotic endocrine disruptors.
Exclusion: ZOO 325HI
Prerequisite: BIO 252YI/PSL 302YI
Recommended preparation: EEB 265YI

CSB327HI | Extracellular Matrix |
| :--- |
| Macromolecules |
| (formerly ZOO 327HI) |

Examines expression, structure and function of the four major
classes of ECM macromolecules: collagen, proteoglycans, non-
collagenous structural proteins and glycoproteins. In addition
to forming elaborate networks that give tissues and organs
their unique architectural design and biophysical properties,
ECM molecules act as potent regulators of all cellular activities.
Emphasis is placed on the morphoregulatory contribution(s) of
ECM molecules to normal and pathological development.
Exclusion: ZOO 327HI
Prerequisite: BIO250YI/255YI
CSB328HI
Developmental Biology
(formerly ZOO 328HI)

Basic concepts in developmental biology. Early development of invertebrates and vertebrates will be discussed with emphasis on experimental and molecular analysis of developmental mechanisms. Tutorials demonstrate examples of descriptive and experimental embryology and discuss primary literature of selected topics in developmental biology.
Exclusion: ZOO 328HI
Prerequisite: BIO250YI/255YI, $260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}$

# Life Sciences: Cell and Systems Biology 

## CSB329HI Evolution of Development 26L, 26T (formerly ZOO 329HI)

This course begins with a comparison of embryonic development in the major animal taxa. The evolution of developmental mechanisms is then considered with emphasis on the molecular and genetic basis of these mechanisms. Subsequent discussion examines the impact of developmental processes on the evolution of animal diversity. Tutorials feature the study of embryos representing diverse animal taxa.
Exclusion: ZOO 329HI
Prerequisite: CSB $328 \mathrm{HI} /(\mathrm{BIO} 250 \mathrm{YI} / 255 \mathrm{YI}, \mathrm{BIO} 260 \mathrm{HI} /$
HMB265HI and permission of instructor)
Recommended preparation: CSB 328HI

## CSB330HI Techniques in Molecular, I3L, 39S

Cellular and Developmental Biology (formerly ZOO 330HI)
A laboratory based course in current research techniques, employing animal model organisms (fruit fly, zebrafish, frog) and experimental methods including basic molecular and cell biology techniques.
Exclusion: MGY432HI, ZOO330HI
Prerequisite: BIO $250 \mathrm{YI} / 255 \mathrm{YI}, \mathrm{BIO} 260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}$
Recommended preparation: CSB328HI

## CSB33IHI Advanced Cell Biology I: Cell Adhesion and Migration (formerly ZOO 33 IHI )

The development of multicellular organisms is dependent on a broad variety of different cell-cell and cell-matrix adhesive mechanisms. The course examines the molecules and mechanisms involved and how they act in concert to regulate distinct developmental and physiological events. Emphasis is placed on the experimental approaches and technology used to study the molecular interactions and dynamics and alter structure-function relationships in cells and organisms.
Exclusion: BCH 304HI, ZOO 33IHI
Prerequisite: BIO $250 \mathrm{YI} / 255 \mathrm{Y}$ I
CSB332HI Neurobiology of the Synapse 26L, I3T (formerly ZOO 332HI)
Examination of all aspects of the synapse in both the peripheral and central nervous systems of invertebrates and vertebrates.
Topics include: synapse formation, synaptic transmission, synaptic plasticity, learning and memory, and neurological disorders.
Exclusion: ZOO 332H
Prerequisite: BIO252YI/PSL20IYI/302YI

## CSB340HI Plant Development

 (formerly BOT 340HI)Plant developmental genetics at the molecular, cellular and organismal level, generation and use of genomic resourses in plant model organisms. Plant embryo and meristem development, as well as vascular tissue patterning. Genomic approaches applicable to plant biotechnology are included.
Exclusion: BOT 340HI
Prerequisite: BIOI50YI, 250Y I/255YI, 260 HI

## CSB344HI Comparative Endocrinology of Invertebrates <br> (formerly ZOO 344HI)

The importance of neurohormones and hormones in the regulation of reproduction, growth, metamorphosis and metabolism in arthropods, especially insects and crustaceans, molluscs, and other invertebrates.
Exclusion: ZOO 344HI
Prerequisite: BIO252YI

## CSB345HI

Biology of Sleep
(formerly ZOO 345HI)
26L, IOT
Covers theories on the biological function of sleep-wake states - why and how animals sleep. Integrates all levels of organization, including molecular biology, homeostasis, bioenergetics, neurophysiology, endocrinology, behaviour and evolution, with comparisons across phyla.
Exlclusion: ZOO 345HI
Prerequisite: BIO252YI/PSL302YI

## CSB346HI Neurobiology of Respiration 26L, I3T (formerly ZOO 346HI)

Integrated control of cardio-respiratory physiology and metabolism in vertebrates. Topics include exercise, diving, sleep and hibernation.
Exclusion: ZOO 346H
Prerequisite: BIO252YI/ PSL302YI

## CSB347HI Comparative Cellular Physiology 26L (formerly ZOO 347HI)

In-depth survey of unique cellular adaptations of different tissues and organisms to overcome environmental stresses such as hypoxia. Emphasis is placed on cellular strategies, particularly second messenger responses, although systematic and whole organism responses will be investigated. Broad-ranging common strategies among diverse organisms are examined.
Exclusion: ZOO 347HI
Prerequisite: BIO252YI/PSL302YI

## CSB349HI Eukaryotic Gene Expression 22L, I8T

 (formerly BIO349HI)Genome structure and the regulation of gene expression in eukaryotic cells. Topics include gene duplication, repetitive DNA, transcription, RNA interference and expression profiling. Tutorials emphasize problem based learning exercises that relate to recent advances in the broad field of eukaryotic gene expression.
Exclusion: BIO 349HI, MGY3IIYI, 420HI, PSL350HI
Prerequisite: BIO250YI/255YI, BIO260HI/HMB265HI
Recommended preparation: $\mathrm{BCH} 2 \mathrm{IOHI} / 320 \mathrm{YI}$

CSB350HI | Laboratory in Molecular 26L, 39P |
| :---: |
| Plant Biology |
| (formerly BOT 350HI) |

Laboratory methods used in plant molecular biology research.
Topics include vector construction, plant transformations, PCR,
DNA blots, high-throughput screens, genetic mapping, and
bioinformatic analyses.
Exclusion: BOT 350HI
Prerequisite: BIO250YI/255YI, 260HI/HMB265HI
Recommended preparation: BIO25IYI or higher level plant
biology course; CSB349HI/MGY3IIYI concurrently

CSB35IYI $\quad$| Introductory Virology |
| :--- |
| (formerly BIO 35IYI) |

An introduction to basic and medical virology. Attendance in tutorials is optional.
Exclusion: BIO 35IYI
Prerequisite: BIO250YI/255YI
CSB352HI Bioinformatic Methods 26L
(formerly BIO $\mathbf{3 5 2 H I}$ )
Use of available programs for analyzing biological data. This is an introductory course with a strong emphasis on hands-on methods meant for Biology and Human Biology/GGB specialists/majors. Some theory is introduced, but the main focus is on using extant bioinformatics tools to analyze data and generate biological hypotheses.

Exclusion: BCB Specialist program students, BIO 352HI
Prerequisite: BIO250YI/255YI, $260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}$

## CSB353HI Introduction to Plant-Microbe Interactions <br> (formerly BOT 35 IHI )

Plants have co-evolved with microbes ever since their first appearance on land, resulting in sophisticated strategies of pathogenicity, symbiosis, commensalisms and mutualism. This course presents an overview of these strategies with examples of bacteria, fungi, oomycetes and viruses that have evolved intimate associations with plants.
Exclusion: BOT 35IHI
Prerequisite: BIOI50YI
Recommended preparation: BIO25IYI

## CSB357HI Biology of Vector-Borne 26L, 24P, IOT <br> Parasitic Diseases

(formerly ZOO 357HI)
The biology of malaria and other medically important vectorborne parasitic diseases. Topics include history of medical parasitology, parasite development in human and invertebrate hosts, epidemiology, adaptations to intra- and extracellular life and switching between hosts, effects on host physiology, immunity and behaviour, implications for vaccine and vector control and lessons regarding zoonoses and emergent infectious diseases. Laboratories and discussions complement formal lectures.
Exclusion: ZOO 357HI
Prerequisite: BIO 250YI/255YI

## CSB398H0/ Independent Experiential Study Project 399Y0

An instructor-supervised group project in an off-campus setting. See page 47 for details.

## 400-Series Courses

## CSB425HI Endocrinology of Transformation (formerly ZOO 425HI)

26L, 13T

The student will investigate the endocrine and paracrine signalling mechanisms that act to coordinate the reorganization of tissues in animals in special situations. The topics covered will include metamorphosis in agnathans and amphibians, sex change in teleost fishes, limb and regeneration in reptiles and amphibians, and neural regeneration in birds and mammals.
Exclusion: ZOO 425HI
Prerequisite: CSB $325 \mathrm{HI} /$ PSL 424 HI ; CGPA 2.7

## CSB428HI Advanced Cell Biology II:

 Cell Polarity and Cytoskeletal DynamicsThis advanced course covers cell polarity and cytoskeletal dynamics emphasizing current literature. For each topic, the course examines (1) the proteins involved, (2) their interactions and regulation, and (3) how they organize specific cellular structures. The coordination of these complexes required for orchestrating complex cellular processes are addressed. Prerequisite: CSB 349HI/MGY 3IIYI

## CSB429HI Germ Cell Biology <br> (formerly ZOO 429HI)

元

This course will discuss the genetic and cell biological aspects of the development of gametes, gonads, and sex related traits in animals, including invertebrates and vertebrates. In the
accompanying seminar, primary literature is used to discuss selected topics in germ cell biology.
Exclusion: ZOO 429HI
Prerequisite: CSB328HI/329HI/340HI/349HI/MGY3I2HI
CSB430HI Developmental Neurobiology 26L, I3T (formerly ZOO 430HI)
An examination of the molecular genetic basis of nervous system formation. Experimental evidence from recent studies in selected invertebrate and vertebrate model systems will be discussed. Topics include the evolution of neural development, neural cell fate determination, neurogenesis, pattern formation, and axon guidance. Exclusion: ZOO 430HI
Prerequisite: CSB328HI/(NRS 20IHI, 202HI)

## CSB450HI Plant Proteomics in Systems <br> 26L

Biology
(formerly BOT 450HI)
This course introduces students to proteomics and metabolomics approaches, such as mass spectrometry, structural biology, 2D gel electrophoresis, in understanding the regulation of metabolic pathways in plants.
Exclusion: BOT 450HI
Prerequisite: $\mathrm{BIO} 250 \mathrm{YI} / 255 \mathrm{YI}, \mathrm{BCH} 2 \mathrm{IOHI}$

## CSB452HI Plant-Microorganism Interaction (formerly BOT 452HI)

48L

This course explores the molecular strategies that microbes and plants have evolved to live with each other. The variety of strategies will be summarized with emphasis on the molecular mechanisms of pathogenic and symbiotic relationships.
Exclusion: BOT 452HI
Prerequisite: MGY3IIYI/BIO349HI
Recommended preparation: BIO25IYI

## CSB457HI Vector Biology 26L, 26T

Biology of vectors, primarily hematophagous insects, of human
parasitic, microbial and viral diseases. Emphasis is on the cellular and molecular interactions between the vectors and the pathogens they transmit and on vector defense/immunity mechanisms mounted against them.
Prerequisite: CSB349HI/MGY3IIYI, CSB 357HI
Recommended preparation: A course in entomology

## CSB458HI Epigenetics <br> (formerly BIO 458 HI )

$39 S$

A seminar course exploring non-Mendelian phenomena in plants, fungi and animals that reveal aspects of genome organization and regulation that may provide insight into genome function and evolution.
Exclusion: BIO 458 HI
Prerequisite: BIO $260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}, \mathrm{CSB} 349 \mathrm{HI} / \mathrm{MGY} 3 \mathrm{IIYI}$
Recommended preparation: HMB 32 IHI
CSB459HI Plant Molecular Biology and 26L Biotechnology (formerly BOT458HI)
This course introduces students to major features of gene expression and signal transduction in plants. Topics include strategies for generating transgenic plants and regulating gene expression, as well as the importance of signal transduction in plant growth and survival. How plants sense and respond at the molecular level to environmental stresses such as drought, salinity, cold and disease will be discussed. The application of this basic

# Life Sciences: Cell and Systems Biology 

scientific information in biotechnological strategies for improving agronomic traits will also be addressed.
Exclusion: BOT 458 HI
Prerequisite: CSB349HI/MGY3IIYI

## CSB460HI Plant Molecular Genetics (formerly MGY 460HI)

Structure, organization, expression and regulation of genes in the nucleus and chloroplast of photosynthetic organisms; regulation of gene expression during plant development and in response to the environment.
Exclusion: MGY460HI
Prerequisite: BCH32IYI/CSB349HI/MGY3IIYI or permission of instructor

## CSB46IHI Chromosome Biology 26L, 26T

(formerly BIO46IHI)
Exploration of the relationships between chromosome structure, function and behaviour. This is an upper level genetics course with considerable cell/molecular biology content. Topics include chromatin structure, essential chromosomal elements, control of mitotic and meiotic segregation, chromosome evolution, genomic imprinting. Tutorials emphasize student discussion of recent primary research papers.
Exclusion: BIO46IHI
Prerequisite: BIO250YI/255YI, 260HI/HMB265HI, CSB349HI/
HMB 32IH/MGY3IIYI

## CSB472HI Computational Genomics 26L, I3T

## and Bioinformatics

(formerly BIO472HI)
Computational analyses of DNA and RNA expression data. Understanding biological databases, sequence alignment, sequence annotation, gene prediction, computational analysis of function, motif analysis, phylogenetic analysis, and microarray analysis.
Applied, theoretical and statistical issues will be addressed.
Exclusion: BCH 44IHI, BIO 472HI
Prerequisite: BIO250YI/255YI
Recommended preparation: BIO $260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}$

## CSB473HI Chemical Genomics (formerly BIO473HI)

26L
This course surveys the field of Chemical Genomics, focusing on the analysis of biological problems using chemical approaches. Topics covered include chemical genetics, combinatorial chemistry and combinatorial strategies in molecular biology (such as phage display and other selection schemes). Examines both the underlying biological and chemical concepts; however, the focus is primarily biological.
Exclusion: BIO 473 HI
Prerequisite: BIOI50YI, CHM247HI
Recommended Preparation: BIO250YI/255YI, BCH2IOHI
CSB474HI Methods in Genomics and Proteomics
This hands-on, laboratory based course, offered through the Centre for the Analysis of Genome Evolution and Function (CAGEF), will teach students how to produce and analyze data that are central to the fields of genomics and proteomics. Techniques taught include DNA and RNA extraction, PCR, DNA sequencing, quantitative PCR, transcript profiling using microarrays, 2D-gel proteome analysis, and associated bioinformatics analyses. Prerequisite: $\mathrm{BIO} 260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}, \mathrm{BIO} 255 \mathrm{HI} / \mathrm{CSB} 330 \mathrm{HI} /$

350 HI or by permission of the instructor
Recommended Preparation: CSB349HI/MGY3IIYI

## CSB482YI Developmental Biology Seminar <br> $52 S$ (formerly BIO 482YI)

A class directed seminar analyzing the major problems in developmental biology from cellular, genetic, and molecular perspectives.
Exclusion: BIO 482YI
Prerequisite: CSB 328 HI and/or CSB 340 HI
CSB485YI Research in Physiology
26T, 78P (formerly ZOO485YI)
The experimental basis of modern animal physiology: techniques and instrumentation and their importance to current physiological concepts, using examples from the literature and the research programs of members of the Department.
Exclusion: ZOO485YI
Prerequisites: BIO252YI/PSL302YI; one course from CSB325HI/ $332 \mathrm{HI} / 344 \mathrm{HI} / 345 \mathrm{HI} / 346 \mathrm{HI} / 347 \mathrm{HI} / E E B 375 \mathrm{HI}, 300$-level laboratory courses(s) with 39P

## CSB486HI Advanced Topics In Integrative

 PhysiologyThis course is designed for both 4th year undergraduate students in the Comparative Animal Physiology Specialist Program and Graduate Students in the early years of their program. The course focuses on the treatment and presentation of complex physiological data using integrated and comparative approaches. The format is a combination of lectures, group discussions and student presentations. The final mark will be composed of grades for student presentations, participation, a critique of scientific manuscripts and final written report.
Prerequisite: One course from CSB $325 \mathrm{HI} / 332 \mathrm{HI} / 344 \mathrm{HI} / 345 \mathrm{HI} /$ $346 \mathrm{HI} / 347 \mathrm{HI}$

| CSB497HI/ | Project in Cell and Systems | TBA |
| :--- | :--- | :--- |
| 498 YI | Biology I <br> (formerly ZOO 498YI) |  |

An original research project (a literature review alone is not sufficient) requiring the prior consent of a member of the Department to supervise the project. The topic is to be one mutually agreed on by the student and supervisor. They must arrange the time, place, and provision of any materials and submit to the Undergraduate Office a signed form of agreement outlining details prior to being enrolled. This course is normally open only to Fourth Year students with adequate background in Cell and Systems Biology. All students are required to make written and, perhaps, oral presentations of the results of their projects and participate in a poster session. A copy of a written report must be submitted to the Undergraduate Office.
Exclusion: BOT460YI/46IHI/462YI/463HI/ZOO498YI/499YI

## CSB499YI Project in Cell and Systems TBA

Biology II
(formerly ZOO499YI)
Allows students to do a second independent project, supervision of which must be different from CSB497HI/498YI. Operates in the same manner as CSB497HI/498YI.
Exclusion: BOT $462 \mathrm{YI} / 463 \mathrm{HI} / \mathrm{ZOO} 499 \mathrm{YI}$
Prerequisites: CSB497HI/498Y।

## Faculty

## Professors Emeriti

P.W. Ball, B Sc, Ph D (UTM, BOT)
D.G. Butler, M Sc, Ph D, D Sc, FRSA (ZOO)
D.A. Chant, MA, Ph D, LL D, FRSC (ZOO)
C.S. Churcher, M Sc, Ph D (ZOO)
N.G. Dengler, MS, Ph D (BOT)
S.S. Desser, M Sc, Ph D (ZOO)
D.W. Dunham, BS, Ph D (ZOO)
J.B. Falls, BA, Ph D (ZOO)
R.I.C. Hansell, B Sc, Ph D (ZOO)
H.H. Harvey, M Sc, Ph D (ZOO)
R.L. Jefferies, B Sc, Ph D (BOT)
D.W. Malloch, MA, Ph D (BOT)
P.F. Maycock, M Sc, Ph D (UTM, BOT)
G.K. Morris, MS, Ph D (UTM, ZOO)
N. Mrosovsky, BA, Ph D (ZOO)
C. Nalewajko, B Sc, Ph D (UTSC, BOT)
T.S. Parsons, AM, Ph D (ZOO)
Z.A. Patrick, B Sc, Ph D (BOT)
R.C. Plowright, MA, Ph D (ZOO)
H.A. Regier, MS, Ph D (ZOO)
J.C. Ritchie, Ph D, D Sc (UTSC, BOT)
J. Svoboda, B Sc, Ph D (UTM, BOT)
G.M. Telford, B Sc, Ph D (ZOO)

Professor and Chair of the Department
R.L. Baker, M Sc, Ph D

Professor and Associate Chair (Research) R.F. Sage, MS, Ph D

## Professor and Associate Chair (Graduate

 Studies)W.G. Sprules, MA, Ph D (UTM)

## Senior Lecturer and Associate Chair

(Undergraduate Studies)
C.A. Goldman, M Sc

## Professors

P.A. Abrams, BS, Ph D, FRSC
J.B.Anderson, BA, Ph D (UTM)
S.C.H. Barrett, B Sc, Ph D, FRSC, FRS
R. Boonstra, B Sc, Ph D (UTSC)
D.R. Brooks, MS, Ph D, FRSC
M.-J. Fortin, M Sc, Ph D
J.H. Fullard, M Sc, Ph D (UTM)
M.R. Gross, B Sc, Ph D
D.T. Gwynne, B Sc, Ph D (UTM)
D.A. Jackson, M Sc, Ph D
L.M. Kohn, B Sc, Ph D (UTM)
R.R. Reisz, M Sc, Ph D (UTM)
J.D. Rising, BA, Ph D
L. Rowe, M Sc, Ph D
M.B. Sokolowski, B Sc, Ph D, FRSC (UTM)
J.D.Thomson, MS, Ph D
D.D.Williams, M Sc, Ph D (UTSC)
A.P. Zimmerman, BA, Ph D

Associate Professors
M.C.B. Andrade, M Sc, Ph D (UTSC)
T.J. Carleton, B Sc, Ph D
N.C. Collins, BA, Ph D (UTM)
H. Cyr, M Sc, Ph D
J.E. Eckenwalder, M Sc, Ph D
D.K. Gibo, MA, Ph D (UTM)
D.S. Guttman, B Sc, Ph D
P.M. Kotanen, M Sc, Ph D (UTM)
H.J. Kronzucker, B Sc, Ph D (UTSC)
A.C. Mason, M Sc, Ph D (UTSC)
D.A. McLennan, M Sc, Ph D
F.H. Rodd, M Sc, Ph D

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Assistant Professors
A. Agrawal, B Sc, Ph D
B. Chang, AB, Ph D
A.D. Cutter, BS, PhD
J. Levine, BA, Ph D (UTM)
N.R. Lovejoy, M Sc, Ph D (UTSC)
L.M. Manne, MS, Ph D (UTSC)
T.L. Sage, MS, Ph D
S. Stefanovic, M Sc, Ph D (UTM)
J.R. Stinchcombe, BA, Ph D
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Ecologists and evolutionary biologists recognize that all life has evolved and that an understanding of the central question of the origin and maintenance of diversity - from genomes to ecosystems - underlies all life sciences and is critical to our stewardship of life. Society needs to make informed decisions about sustainable development, global temperature change, control of invasive species, the preservation of genetic diversity and ecosystem integrity, and the control of emerging infectious diseases such as SARS and drug-resistant malaria. These are fundamentally evolutionary and ecological problems.

Research and teaching in the Department covers all life forms (microbes, fungi, plants, animals) and is aimed at an understanding of the diversity of life and all aspects of organismal biology in the natural world. Research faculty use a broad array of approaches in their studies, including molecular studies, laboratory experiments, computer and mathematical modeling, and field studies in many different areas of the world. Instruction provides opportunities for research projects conducted in the laboratory and the field. We offer a very wide range of courses that deal with molecular evolution, population and quantitative genetics, genomics, animal behaviour, population, community, and landscape ecology, evolutionary and ecological theory, biodiversity, conservation biology, and systematics. Students exposed to these subjects come to realize that the ecological and evolutionary underpinnings of life present a host of scientific problems that are both intellectually challenging and critical to our future.

The Department of Ecology \& Evolutionary Biology offers five programs: Specialist programs in Behaviour, Ecology, and Evolutionary Biology; a Major program in Ecology \& Evolutionary Biology; and a Minor program in Environmental Biology. The Department also jointly offers, with the Department of Cell \& Systems Biology, Specialist, Major, and Minor programs in Biology, Botany, and Zoology. The Department of Ecology \& Evolutionary Biology (EEB) arose, along with its sister department, the Department of Cell \& Systems Biology (CSB), from a reorganization in 2006 of the previous departments of Botany and Zoology.

## Life Sciences: Ecology and Evolutionary Biology

Students entering their first year in the life sciences take BIOI50YI. BIOI50YI is taken by students who have successfully completed grade 12 Biology (or an equivalent course) and is a prerequisite for almost all further courses in the life sciences.

Students requiring more information about Ecology \& Evolutionary Biology programs and courses please visit the departmental website or contact the Undergraduate Office, Earth Sciences Centre (25 Willcocks St.), Room 3055, undergrad@eeb.utoronto. ca.

Website: www.eeb.utoronto.ca

## Ecology \& Evolutionary Biology Programs

After completing 4.0 FCEs (four full courses or their equivalent), students in these programs are encouraged to discuss their course selections each year with the Department. Contact: undergrad@ eeb.utoronto.ca

Enrolment in the programs listed below requires completion of 4.0 FCEs; no minimum GPA is required.

## Behaviour (Science program)

## Specialist program:

(I3 full courses or their equivalent, including at least I. 0400 -series FCE)

First Year: BIOI50YI; CHM (I38HI, I39HI)/I5IYI; JMBI70YI/ MATI35YI/I36YI/I37YI/I57YI
Higher Years:
I. 2.5 FCEs: $\mathrm{BIO} 250 \mathrm{YI} / 255 \mathrm{YI}$; BIO $260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI} ; \mathrm{PSY}$ $(290 \mathrm{HI}, 260 \mathrm{HI} / 280 \mathrm{HI}) / \mathrm{BIO} 252 \mathrm{YI} / Z O O 252 \mathrm{YI}$
2. I. 0 FCE in statistics from: $\operatorname{PSY}(20 \mathrm{IHI}, 202 \mathrm{HI})$; (STA 220 HI , EEB/BIO 225 HI ) (recommended); STA (220HI, 22IHI); (STA 220 HI, JBS 229 HI ); STA ( $250 \mathrm{HI}, 255 \mathrm{HI}$ ); STA ( $257 \mathrm{HI}, 26 \mathrm{IHI}$ )
3. I.5 FCEs: EEB/ZOO 322 HI ; EEB/BIO 323 HI ; EEB/BIO 324 HI
4. 0.5 field course from: EEB/BIO $30 \mathrm{IHI}, 302 \mathrm{HI}, 303 \mathrm{HI}, 305 \mathrm{HI}$, $306 \mathrm{HI}, 307 \mathrm{HI}, 308 \mathrm{HI}, 309 \mathrm{HI}, 469 \mathrm{HI}$; EEB/ZOO 304 HI , $360 \mathrm{HI}, 36 \mathrm{IHI}$, EEB/BOT 304HI
5. I. 0400 -series seminar course: EEB/BIO $494 \mathrm{YI} / 495 \mathrm{YI} / 496 \mathrm{Y} \mathrm{I}$ ( 496 YI is recommended)
6. 3.5 FCEs (at least 1.5 must be $300+$ series) from: ANT 436 HI BIO; EEB (excluding EEB $202 \mathrm{HI}, 2 \mathrm{I} 4 \mathrm{HI}, 2 \mathrm{I} 5 \mathrm{HI}, 2 \mathrm{I} 6 \mathrm{HI}$ ); ENV234YI; HMB32IHI; HPS323HI, $333 \mathrm{HI}, 353 \mathrm{HI}, 355 \mathrm{HI}$; JZP; PSY (excluding PSY300HI); ZOO (excluding ZOO 200YI, $214 \mathrm{YI}, 215 \mathrm{HI}, 216 \mathrm{HI})$ NOTE: EEB/BIO 3I9HI, 32 IHI ; EEB/ZOO 362 HI ; PSY397HI/ JZP326HI, PSY497HI/JZP428HI; PSY $260 \mathrm{HI}, 280 \mathrm{HI}, 362 \mathrm{HI}$, $369 \mathrm{HI}, 390 \mathrm{HI}, 392 \mathrm{HI}, 393 \mathrm{HI}, 396 \mathrm{HI}, 399 \mathrm{HI}, 460 \mathrm{HI}, 490 \mathrm{HI}$ are recommended for this program. Students wishing to take PSY courses to fulfill the requirements of this program should take PSYIOOHI.To take additional PSY courses, students must be enrolled in a PSY program or have obtained a minimum of $70 \%$ in PSYIOOHI.

## Biology: see Biology

Botany: see Biology

## Ecology (Science program)

## Specialist program:

(I3 full courses or their equivalent, including at least I. 0400 -series FCE)

First Year: BIOI50YI; CHM (I38HI, I39HI)/I5IYI;JMBI70YI/ MATI35YI/I36YI/I37YI/I57YI
Higher Years:
I. 3.5 FCEs: $\mathrm{BIO} 250 \mathrm{YI} / 255 \mathrm{YI} ; \mathrm{BIO} 260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}$; BIO25IYI/BOT25IYI/BIO252YI/ZOO252YI; EEB265YI/ ZOO265YI/ENV234YI
2. I. 0 FCE in statistics from: PSY $(20 \mathrm{IHI}, 202 \mathrm{HI})$; (STA 220 HI , EEB/BIO 225 HI ) (recommended); STA (220HI, 22 IHI ); (STA 220 HI, JBS 229 HI ); STA ( $250 \mathrm{HI}, 255 \mathrm{HI}$ ); STA ( $257 \mathrm{HI}, 26 \mathrm{IHI}$ )
3. 0.5 FCE: EEB/BIO 323 HI
4. 0.5 field course from: EEB/BIO $30 \mathrm{IHI}, 302 \mathrm{HI}, 303 \mathrm{HI}, 305 \mathrm{HI}$, $306 \mathrm{HI}, 307 \mathrm{HI}, 308 \mathrm{HI}, 309 \mathrm{HI}, 469 \mathrm{HI}$; EEB/ZOO 304 HI , $360 \mathrm{HI}, 36 \mathrm{IHI} ;$ EEB/BOT 304 HI
5. 2.0 FCEs from: EEB/BIO $3 \mathrm{I} 9 \mathrm{HI}, 32 \mathrm{IHI}, 324 \mathrm{HI}, 328 \mathrm{HI}, 365 \mathrm{HI}$, 370 HI, EEB/ZOO 322HI
6. I. 0400 -series seminar course: EEB/BIO $494 \mathrm{YI} / 495 \mathrm{YI} / 496 \mathrm{YI}$ ( 495 YI is recommended)
7. I.5 FCEs (at least 0.5 must be $300+$ series) from:ANT436HI, BIO, BOT (excluding BOT202YI), CHM; EEB (excluding EEB $202 \mathrm{HI}, 2 \mathrm{I} 4 \mathrm{HI}, 2 \mathrm{I} 5 \mathrm{HI}, 216 \mathrm{HI}$ ); ENV (excluding ENV200YI); GGR (only Science courses); GLG (excluding GLG 100HI, $103 \mathrm{HI}, 105 \mathrm{HI}, \mathrm{IIOHI}) ;$ HMB32IHI; HPS $323 \mathrm{HI}, 333 \mathrm{HI}$, $353 \mathrm{HI}, 355 \mathrm{HI}$; MAT; PHY (excluding PHY $100 \mathrm{HI}, 10 \mathrm{HI}$ ); STA; ZOO (excluding ZOO 200YI, 2I4YI, 2I5HI, 2I6HI) NOTE: EEB/BIO $428 \mathrm{HI}, 440 \mathrm{HI}, 465 \mathrm{HI}, 469 \mathrm{HI}, 47 \mathrm{IHI}, \mathrm{EEB} /$ ZOO 375 HI are recommended for this program.

## Ecology \& Evolutionary Biology (Science program)

## Major program:

(8 full courses or their equivalent)
First Year: BIOI50YI; CHM (I38HI, I39HI)/I5IYI
Higher Years:
I. 3.0 FCEs: BIO250YI/255YI; BIO260HI/HMB265HI; BIO/ BOT 25 IYI or BIO/ZOO 252 YI or EEB/ZOO 265 YI or ENV234YI; STA220HI
2. 2.0 FCEs from: EEB/BIO $3 \mathrm{I} 9 \mathrm{HI}, 32 \mathrm{IHI}, 323 \mathrm{HI}, 324 \mathrm{HI}, 328 \mathrm{HI}$, $362 \mathrm{HI}, 365 \mathrm{HI}, 370 \mathrm{HI}$, EEB/ZOO 322 HI
3. I. 0 FCE from: BIO/BOT 25 IYI ; BIO/ZOO 252 YI ; EEB (excluding EEB $202 \mathrm{HI}, 2 \mathrm{I} 4 \mathrm{HI}, 215 \mathrm{HI}, 2 \mathrm{I} 6 \mathrm{HI}$ ); ENV234YI; HPS $323 \mathrm{HI}, 333 \mathrm{HI}, 353 \mathrm{HI}, 355 \mathrm{HI} ;$ JMBI70YI/MATI $35 \mathrm{YI} /$ I36YI/I37YI/I57YI

## Environmental Biology (Science program)

## Minor program:

(4 full courses or their equivalent)
I. BIOI50YI; ENV234Y
2. 2.0 FCEs from: EEB/BIO $3 \mathrm{I} 9 \mathrm{HI}, 32 \mathrm{IHI}, 323 \mathrm{HI}, 324 \mathrm{HI}, 328 \mathrm{HI}$, $362 \mathrm{HI}, 365 \mathrm{HI}, 370 \mathrm{HI}$, EEB/ZOO 322 HI (a course in ecology and a course in evolution are recommended)

## Evolutionary Biology (Science program)

## Specialist program:

(I3 full courses or their equivalent, including at least I. 0400 -series FCE)
First Year: BIOI50YI; CHM (I38HI, I39HI)/I5IYI; JMBI70YI/ MATI35YI/I36YI/I37YI/I57YI

Higher Years:
I. 2.5 FCEs: $\mathrm{BIO} 250 \mathrm{YI} / 255 \mathrm{YI}$; BIO260HI/HMB 265 HI ; BIO25IYI/BOT25IYI/BIO252YI/ZOO252YI
2. I. 0 FCE in statistics from: PSY $(20 \mathrm{IHI}, 202 \mathrm{HI})$; (STA 220 HI , EEB/BIO 225 HI ) (recommended); STA ( $220 \mathrm{HI}, 22 \mathrm{IHI}$ ); (STA 220 HI, JBS 229 HI$)$; STA $(250 \mathrm{HI}, 255 \mathrm{HI})$; STA $(257 \mathrm{HI}, 26 \mathrm{HI})$
3. 2.0 FCEs: EEB/BIO $319 \mathrm{HI}, 323 \mathrm{HI}, 324 \mathrm{HI}, 362 \mathrm{H}$
4. 0.5 field course: EEB/BIO $30 \mathrm{IHI}, 302 \mathrm{HI}, 303 \mathrm{HI}, 305 \mathrm{HI}$, $306 \mathrm{HI}, 307 \mathrm{HI}, 308 \mathrm{HI}, 309 \mathrm{HI}, 469 \mathrm{HI}$; EEB/ZOO 304 HI , $360 \mathrm{HI}, 36 \mathrm{HI}$; EEB/BOT 304 HI
5. I. 0400 -series seminar course: EEB/BIO $494 \mathrm{YI} / 495 \mathrm{YI} / 496 \mathrm{Y} \mathrm{I}$ ( 494 YI is recommended)
6. 3.0 FCEs (at least I. 0 must be $300+$ series) from: ANT 436 HI ; BIO; BOT (excluding BOT202YI); CHM $220 \mathrm{HI}, 247 \mathrm{HI} / 249 \mathrm{HI}$; CSB $35 \mathrm{I} \mathrm{Y}, 352 \mathrm{HI}, 357 \mathrm{HI}, 452 \mathrm{HI}, 458 \mathrm{HI}, 460 \mathrm{HI}, 472 \mathrm{HI}$; EEB (excluding EEB $202 \mathrm{HI}, 214 \mathrm{HI}, 2 \mathrm{I} 5 \mathrm{HI}, 216 \mathrm{HI}$ ); ENV234YI; GLG IIOHI, 216HI; HMB32IHI; HPS $323 \mathrm{HI}, 333 \mathrm{HI}$, $353 \mathrm{HI}, 355 \mathrm{HI}$; MAT $235 \mathrm{YI} / 237 \mathrm{YI}$; PHYIIOYI/I38YI/ I40YI; PSYIOOHI/IOOYI; ZOO (excluding ZOO 200YI, 214YI, $215 \mathrm{HI}, 216 \mathrm{HI})$
NOTE: EEB/BIO $3 \mathrm{I} 9 \mathrm{HI}, 32 \mathrm{IHI}, 365 \mathrm{HI}, 370 \mathrm{HI}, 459 \mathrm{HI}, 460 \mathrm{HI}$, $46 \mathrm{IHI}, \mathrm{EEB} / \mathrm{ZOO} 462 \mathrm{HI}$ are recommended for this program.

## Zoology: see Biology

## Ecology and Evolutionary Biology Courses

For Distribution Requirement purposes, all BIO and EEB courses, ENV234YI, and JMBI70YI are classified as SCIENCE courses (see page 27). All students, regardless of campus or Faculty, must abide by the stated course prerequisites and exclusions.

## 100-SERIES COURSES

## BIOI50YI Organisms in Their 52L, 36P Environment

Evolutionary, ecological, and behavioural responses of organisms to their environment at the level of individuals, populations, communities, and ecosystems. A prerequisite for advanced work in biological sciences. Attendance at weekly lecture tutorials is voluntary, yet highly recommended.
Prerequisite: Biology 12 or equivalent. Students without high school Biology must consult the BIOI50 Office (biol50@ utoronto.ca)

## JMBI70YI Biology, Models, and Mathematics 78L

Applications of mathematics to biological problems in physiology, genetics, evolution, growth, population dynamics, cell biology, ecology, and behaviour. Mathematical topics include: power functions and regression; exponential and logistic functions; binomial theorem and probability; calculus, including derivatives, max/min, integration, areas, integration by parts, substitution; differential equations, including linear constant coefficient systems; Markov processes; and chaos. This course is intended for students in Life Sciences.
Co-requisite: BIOI50YI

## SCII99YI First Year Seminar

52S
Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first
year students. It may serve as a distribution requirement course; see page 47.

## 200-SERIES COURSES

BIO25IYI

## Biology of Plants and Micro-organisms

52L, 39P
(formerly BOT25IYI)
An introduction to the biology of plants, fungi, and algae. Diversity of forms, reproductive patterns, structure, and physiology are emphasized. Labs demonstrate major species groups and the relationship between structure and function of plants.
Prerequisite: BIOI50YI
Exclusion: BOT25IYI

## EEB202HI

Plants and Society
26L

## (formerly BOT202YI)

The continuing impact of new scientific technologies on society through changes in agriculture. Plant biology and domestication, genetic resource conservation, biological invasions, environmental pollution, genetic engineering, and biotechnology. Evaluation of the ecological implications of advances in modern plant science. Exclusion: BIOI50Y/BOT202YI
This course counts as a Science Distribution Requirement for students in all years and disciplines.

## EEB214HI <br> Evolution and Adaptation <br> 26L, I2T (formerly ZOO214YI)

Evolution and adaptation through natural selection. Concepts and application based on faunal life goals of habitat survival, food acquisition, predator avoidance, and reproduction. Topics include: speciation, mutation, co-evolution, symbiosis, pollination, cannibalism, parasitism, eusociality, and sexual and parental conflict. Essays, debates, and reading required.
Exclusion: BIOI $50 \mathrm{YI} / 323 \mathrm{HI} / \mathrm{EEB} 323 \mathrm{HI} / \mathrm{ZOO} 214 \mathrm{YI} / 324 \mathrm{Y} \mathrm{I}$
This course counts as a Science Distribution Requirement for students in all years and disciplines.

EEB2I5HI | Conservation Biology |
| :--- |
| (formerly ZOO2I5HI) |$\quad$ 26L, 13T

Introduction to the scientific discipline that deals with threats, losses and recovery of endangered wildlife. Topics include: biodiversity, extinction, demography, genetic diversity, nature reserves, captive breeding; also endangered species laws, moral philosophies, and political, economic and social justice issues surrounding biodiversity. Essays and reading required.
Exclusion: EEB/BIO $365 \mathrm{HI} / Z O O 2 I 5 H I$
This course counts as a Science Distribution Requirement for students in all years and disciplines.

## EEB2I6HI Marine Mammal Biology 26L, I2T and Conservation <br> (formerly ZOO2I6HI)

Introduction to ecological, evolutionary, physiological, and anatomical adaptations of marine mammals to their aquatic environment. Issues of conservation and environmental biology will also be covered. In tutorials the use of anatomical specimens (skulls, teeth, etc.) will be supplemented with video and other teaching tools.
Prerequisite: Biology 12 or equivalent
Exclusion: BIO/ZOO $216 \mathrm{HI} / 252 \mathrm{YI}$; SCII99YI: Marine Mammals in Their Environment
This course counts as a Science Distribution Requirement for students in all years and disciplines.

# Life Sciences: Ecology and Evolutionary Biology 

## EEB225HI

## Biostatistics for Biological Sciences <br> (formerly BIO225HI)

A statistics course designed especially for life science students, using biological examples where appropriate. Students learn to choose and use statistics that are appropriate to address relevant biological questions and hypotheses. Lectures and computer labs will be used to cover the following methods: sampling and experimental design, data exploration, correlation, regression, ANOVA, Chi-square, and non-parametric tests.
Exclusion: BIO225HI/ECO220YI/227YI/GGR270HI/PSY202HI/
SOC $300 \mathrm{YI} / \mathrm{STA} 22 \mathrm{IHI} / 250 \mathrm{HI} / \mathrm{JBS} 229 \mathrm{HI}$
Prerequisite: BIOI50YI, STA220HI

## EEB263YI Comparative Vertebrate 26L, 78P, 26T Anatomy <br> (formerly ZOO263YI)

The ontogeny and phylogeny of vertebrate structure are considered within the context of evolutionary theory. Functional aspects of the various organ systems are examined. Representative fish and mammals are dissected in detail and other forms are dealt with briefly to illustrate selected anatomical features and to provide practical exposure to vertebrate construction. Prerequisite: BIOI50YI
Exclusion: ZOO263YI

## EEB265YI Animal Diversity <br> 52L, 78P

(formerly ZOO265YI)
Diversity of animals in the world. Special attributes, requirements and ecosystems of different groups of organisms and how they interact with each other and with humans. Labs emphasize recognition of major groups, and use living organisms when possible, but involve no invasive procedures.
Prerequisite: BIOI50YI
Exclusion: ZOO265YI

## EEB299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.

## ENV234YI Environmental Biology <br> 52L, 39P

A broad-based science course drawing on elements from geology, systematics, soil science, and ecology to understand past and present environments and how humans are altering the environment. Emphasis is placed on examination of ecological phenomena in relation to population, community, and ecosystem processes with particular reference to the biomes of Ontario. Descriptive and experimental laboratory studies including a weekend field trip (total cost about \$15.00). (Offered by the Department of Ecology \& Evolutionary Biology, Department of Geology, and the Faculty of Forestry)
Prerequisite: BIOI50YI (recommended) or GGRIOOYI This is a Science course.

## 300-SERIES COURSES

## EEB30IHI Marine Biology (formerly BIO30IHI)

Offered in the summer at Huntsman Marine Laboratory, St. Andrews, New Brunswick, of about 14 days duration. Informal lectures and seminars with intensive field and laboratory work on different marine habitats and the animals and plants associated with them. Student projects included.
Prerequisite: BIOI5OYI and permission of instructor
Exclusion: BIO30IHI

Recommended preparation: Any second year ecology or environmental biology course

## EEB302HI Arctic Ecosystems TBA (formerly BIO302HI)

Two-week summer field course offered in Churchill, Manitoba. Instruction combines lectures with field trips to local tundra and boreal forest sites. Students are responsible for completing an independent project based on local field work. Dates, instructors, and material covered vary from year to year. (Offered in alternate years)
Prerequisite: BIOI50YI and permission of instructor Exclusion: BIO302HI
Recommended preparation: At least one course in ecology

## EEB303HI Tropical Ecology and Evolution TBA

 (formerly BIO303HI)A field course during Reading Week introduces students to the diversity of biological communities in the tropics focusing on ecological and evolutionary interactions. Plant and animal communities of the New World tropics are compared and contrasted with temperate communities. Students conduct smallscale research projects in the field. Lectures will be given on Friday afternoons prior to departure.
Prerequisite: BIOI50YI, any other Life Science course with a lab and permission of instructor
Exclusion: BIO303HI

## EEB304HI Field Botany TBA

(formerly BOT304HI)
A two-week course that aims to introduce students to the diversity of plants that can be found in southern Ontario, not only in the wild but also in botanical gardens or other living collections. The course studies field, herbarium, and laboratory methods used in plant organismic biology research. Topics include: plant collecting, plant identification, preparation of voucher specimens, plant reproductive biology, and plant diversity and phylogeny
Prerequisite: BIOI5OYI and permission of instructor
Exclusion: BOT304HI
Recommended preparation: EEB330HI/BOT300HI, EEB337HI/ BOT307HI

| EEB305HI | Experimental Ecology and <br>  <br>  <br>  <br> Evolution in Southern Ontario <br> (formerly BIO305HI) | TBA |
| :--- | :--- | :--- |

A field course offered at a Southern Ontario field station for two weeks in May or June. Students learn the natural history of the region and conduct a research project in the field. Projects focus on terrestrial plant ecology, plant-insect interactions, and other topics in evolutionary ecology selected by the students.
Prerequisite: BIOI50YI, any other Life Science course with a lab, and permission of instructor
Exclusion: BIO305HI
Recommended preparation: a second- or third-year ecology, evolution or environmental science course

| EEB306HI | Inter-University Field Course <br> (formerly BIO306HI) |
| :--- | :--- |

Inter-university selections from the offerings of the Ontario Universities Program in Field Biology. Courses, of one or two weeks duration at field sites from May through August, are announced each January. Consult the Ecology \& Evolutionary Biology Undergraduate Office or website.
Prerequisite:Varies by module
Exclusion: BIO306HI

## EEB307HI

## Alpine Ecosystems (formerly BIO307HI)

A field course at a high mountain field station for two weeks in the summer. Students learn the natural history of alpine and subalpine biomes and investigate major abiotic and biotic interactions. Required projects catalogue natural diversity, examine species interactions, or assess abiotic influences and stresses on high-altitude organisms and their environment.
Prerequisite: BIOI50YI, BIO/BOT 25 Y YI or BIO/ZOO 252 YI , and
permission of instructor
Exclusion: BIO307IH

## EEB308HI Biodiversity and Ecology in Southeast Asia (formerly BIO308HI)

Offered in early or late summer for approximately two weeks. Students conduct independent research projects and will be introduced to the biodiversity and ecology of the tropics. Projects will be tailored to each student's interests and background.
Prerequisite: BIOI5OYI and permission of instructor
Exclusion: BIO 308 HI
Recommended preparation: EEB/ZOO $360 \mathrm{HI} / 384 \mathrm{HI} / 386 \mathrm{HI} /$ 388 HI

## EEB309HI Field Ornithology

 (formerly ZOO304HI)Lectures on the biology of birds, and intensive field work emphasizing field identification, census techniques and habitat preferences. Student projects included. Offered for two weeks in the spring or summer at a field station.
Prerequisite: BIOI50YI and permission of instructor
Exclusion: ZOO304HI

## EEB3I9HI <br> Population Ecology (formerly BIO3I9HI)

Distribution of species; population growth and regulation; interactions within and among species; food webs; harvesting of natural resources; diseases; pest control. Basic ecological principles and applied issues discussed. Labs include experiments and computer simulations.
Prerequisite: BIOI50YI, JMBI70YI/MATI35YI/I36YI/I37YI/ I57Y|
Exclusion: BIO3I9HI/320YI
Recommended preparation: a course in statistics

| EEB32IHI | Community Ecology <br> (formerly BIO32IHI) | 26L, 39P |
| :--- | :--- | :--- |

A comprehensive survey of community and ecosystem ecology emphasizing current developments and controversies. There will be two or three required day field trips held on weekends early in the fall term. Both the field trips and computer exercises provide training in sampling, simulation, and data analysis.
Prerequisite: BIOI50YI and a course in statistics
Exclusion: BIO320YI/32 IHI
Recommended preparation: ENV234YI

| EEB322HI | Behaviour and Behavioural 26L, 39P |
| :--- | :--- |
|  | Ecology |
| (formerly ZOO322HI) |  |

A broad introduction to animal behaviour emphasizing concepts from ethology and behavioural ecology. Field and laboratory studies are undertaken.
Prerequisite: BIOI 50 Y I, PSY20IHI/STA $220 \mathrm{HI} / 250 \mathrm{HI} / 257 \mathrm{HI}$
Exclusion: ZOO322HI

## EEB323HI

## Evolutionary Genetics

(formerly BIO323HI)
26L, 26T
Evolutionary biology rests on a foundation of evolutionary genetics. This course focuses on the core ideas in population genetics and extends to evolutionary genomics. Students are exposed to the mathematical theory underlying evolutionary genetics and are expected to learn the mathematical foundations underlying these ideas. Topics include the population genetics of mutation, migration, drift, and selection, analysis of sequence variation, and the evolution of sexual reproduction.
Prerequisite: BIOI50Y, BIO260HI/HMB265HI, JMBI70YI/
MATI35YI/I36YI/I37YI/I57YI
Exclusion: BIO 323 HI
Recommended: a good understanding of high school math, a course in statistics

| EEB324HI | Evolutionary Ecology <br> (formerly BIO324HI) | 26L, I3T |
| :--- | :--- | :--- |

Empirical and theoretical approaches to key areas of research including foraging, natural and sexual selection, and life histories. Other topics may include phenotypic plasticity, quantitative genetics, and co-evolution.
Prerequisite: EEB/BIO 323HI
Exclusion: BIO324HI/ZOO324YI
EEB328HI Physiological Ecology 26L, 26T (formerly BIO328HI)
An advanced treatment of the physiological mechanisms controlling plant and animal distribution and ecological success. Topics of focus include photosynthesis and resource balance, water and nutrient relations, temperature effects, and adaptations to abiotic stress.
Prerequisite: BIO/BOT 25 IYI or $\mathrm{BIO} / \mathrm{ZOO} 252 \mathrm{YI}$ or equivalent Exclusion: BIO328HI

## EEB330HI

Systematic Botany
26L, 39P (formerly BOT300HI)
The theoretical foundations of taxonomy and the types of evidence used in constructing plant classifications. Labs emphasize taxonomic characters and their uses. Includes an independent taxonomic project.
Prerequisite: BIOI50YI
Exclusion: BOT300HI
Recommended preparation: EEB337HI//BOT307HI

EEB33IHI | Introduction to the Fungi 26L, 39P |
| :--- |
| (formerly BOT30IHI) |

Topics include fungal systematics, morphology, physiology, and ecology. The roles of fungi in the environment and their importance to man. A field trip explores the natural occurrence of fungi. Labs introduce the techniques used for morphological and molecular identification, and for isolation in pure culture. Students use fungal cultures to conduct an independent experimental research project.
Prerequisite: BIOI50YI
Exclusion: BOT301HI
Recommended preparation: BIO/BOT 25 IY I
EEB337HI $\begin{aligned} & \text { Families of Vascular Plants 26L, 39P } \\ & \text { (formerly BOT307HI) }\end{aligned}$
Variation in morphology, predominant breeding systems, dispersal syndromes, and other features between families of vascular plants in the Ontario flora are examined. Students learn key characteristics for identification of important families of ferns, fern allies, conifers, and flowering plants.
Prerequisite: BIOI50YI
Exclusion: BOT307HI

## Life Sciences: Ecology and Evolutionary Biology

## EEB340HI

## Comparative Plant Morphology <br> (formerly BOT3IOHI)

26L, 39P

Evolution of vegetative and reproductive morphology of land plants is examined. Lecture topics cover evolution of meristems shoot architecture and vascular tissue as well as evolution of the land plant life cycle, the ovule habit, fertilization processes, and pollination biology.
Prerequisite: BIO I50YI
Exclusion: BOT3IOHI

## EEB34IHI <br> Plant Anatomy (formerly BOT34IHI) <br> 26L, 39P

The microscopic structure of plants with emphasis on the characteristics of cells and tissues, how they are formed from plant meristems and how they function in transport, photosynthesis, transpiration, absorption, and reproduction. (Not offered in 200708)

Prerequisite: BIO/BOT 25IYI
Exclusion: BOT34IHI

| EEB353HI | History of Evolutionary <br> Biology I <br> (formerly ZOO354YI; <br>  <br>  <br>  <br> also listed as HPS353HI) |
| :--- | :--- |

An examination of major ideas about biological evolution from the 18th century to the 1930s and of their impact on scientific and social thought. Topics include the diversity of life and its classification, the adaptation of organisms to their environment, Wallace's and Darwin's views on evolution by natural selection, sexual selection, inheritance from Mendel to T.H. Morgan, eugenics, and the implications of evolution for religion, gender roles, and the organization of society.
Exclusion: ZOO354Y I/HPS323HI/353H
Prerequisite: 6 full courses or equivalent including BIO 150 Y
This counts as a Humanities or Science course.

| EEB355HI | History of Evolutionary 26L, I3T <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br> (formerlogy II ZOO354YI; <br> also listed as HPS355HI) |
| :--- | :--- |

An examination of ideas about biological evolution from the 1930s to the present. Topics include the Modern Synthesis, population genetics, the concept of biological species, ecology, sociobiology, and creationism
Exclusion: ZOO354YI/HPS333HI/355HI
Prerequisite: EEB353HI/HPS $323 \mathrm{HI} / 353 \mathrm{HI}$
This counts as a Humanities or Science course.
EEB356HI 26L, I8P
(formerly ZOO356HI)
Lectures provide an introduction to the morphology, physiology, development, behaviour, evolutionary history and biological significance of insects. Labs will include demonstrations, multimedia, and independent student projects and presentations. (Offered in alternate years)
Exclusion: EEB/ZOO 360HI, ZOO356HI
Prerequisite: BIOI50YI
EEB360HI Entomology 26L, 39P

## (formerly ZOO360HI)

Introduction to the morphology, physiology, development, behaviour, ecology, evolutionary history, and biological significance of insects. Labs include making an insect collection. Mandatory one week of fieldwork in Algonquin Park at the end of August.

EEB/ZOO 360 HI can be used to fulfil a program's field course requirement. (Offered in alternate years)
Exclusion: EEB/ZOO $356 \mathrm{HI}, \mathrm{ZOO} 360 \mathrm{HI}$
Prerequisite: BIOI50YI
EEB36IHI
Field Entomology
TBA
(formerly ZOO36IHI)
A field and laboratory course to provide practical experience in techniques for collecting and studying insects. Students will each prepare an insect collection and/or conduct a small-scale research project.
Prerequisite: EEB/ZOO $356 \mathrm{HI} / 360 \mathrm{HI}$, and permission of instructor
Exclusion: ZOO36IH
EEB362HI Introduction to 26L, 26T
Macroevolution
(formerly ZOO362HI)
Explores patterns of large-scale evolutionary change, played out over large geographic expanses and extended periods of time. Integrates patterns with field and experimental studies to clarify evolutionary processes. Topics include: origins of species and their adaptations, historical biogeography, co-evolution, community evolution, and the role of evolutionary information in conservation and biodiversity initiatives. Tutorials emphasize methods used to reconstruct phylogenetic relationships.
Prerequisite: BIOI50YI
Exclusion: ZOO362HI

## EEB365HI

## Biodiversity and <br> Conservation Biology <br> (formerly BIO365HI)

26L, 26P

Introduction to the study and conservation of biodiversity at all levels - genes, species, communities, and ecosystems. Includes threats to biodiversity and approaches to maintaining biodiversity. Practicals include computer labs and small group discussions of lecture topics.
Prerequisite: BIOI50YI
Co-requisite: One of EEB/BIO $3 \mathrm{I} 9 \mathrm{HI} / 32 \mathrm{IHI} / 323 \mathrm{HI} / 324 \mathrm{HI}$ or
EEB/ZOO 322HI
Exclusion: BIO365HI

| EEB370HI | Theoretical Ecology and 26L, 26P <br> Evolution <br> (formerly BIO370HI) |
| :--- | :--- |

Introduction to mathematical modeling techniques used in ecological and evolutionary theory. Applications include understanding the dynamics of populations and ecological communities and the evolution of ecologically important characteristics within species. Includes applied linear algebra, dynamic systems models, optimization techniques, and game theory. Requires good knowledge of first-year calculus, but not extensive mathematical background. Computer lab once a week. Exclusion: EEB/BIO $470 \mathrm{HI}, \mathrm{BIO} 370 \mathrm{HI}$
Prerequisite: BIOI50YI, JMBI70YI/MATI35YI/I37YI/I57YI
EEB375HI Environmental Factors 39L
(formerly ZOO375HI)
A lecture and seminar course dealing with the effects of physical and chemical environments on animals.
Prerequisite: BIOI50YI
Exclusion: ZOO375HI
Recommended preparation: BIO/ZOO 252YI, EEB/BIO $319 \mathrm{HI} / 32 \mathrm{IHI}$ or ENV234Y|

## EEB384HI Biology of Amphibians 13L, 39P (formerly ZOO384HI)

Introduction to the natural history, evolution, and diversity of amphibians. (Offered in alternate years)
Prerequisite: EEB/ZOO 263YI
Exclusion: ZOO384HI
Recommended preparation: EEB/BIO 323 HI , EEB/ZOO 362 HI

## EEB386HI Avian Biology I3L, 39P (formerly ZOO386HI)

Avian diversity and evolution; adaptations for flight; physiology; migration and navigation; reproduction and social behaviour; species, speciation, and hybridization; population trends and conservation. Local field trips. An activity fee may be collected. Prerequisite: BIOI50YI
Exclusion: ZOO386HI
Recommended preparation: an additional course in evolution, ecology or behaviour

## EEB388HI Biology of Mammals I3L, 39P <br> (formerly ZOO388HI)

Natural history of mammals emphasizing ecology, community structure, behaviour, reproduction, and life history strategies; form and function related to different modes of life and physical environments. Labs include a survey of Ontario mammals. (Offered in alternate years)
Prerequisite: EEB/BIO 323 HI or BIO/ZOO 252 YI or EEB/ZOO 322HI
Exclusion: ZOO388HI

EEB389HI | Mammalian Diversity |
| :--- |
| (formerly ZOO389HI) |$\quad$ 13L, 39P

The origin, evolution, zoogeography, phylogenetic relationships, and diversity of mammals; speciation, extinction, and current issues in conservation biology. Labs survey mammalian orders, their characteristics, identification, and systematic relationships. (Offered in alternate years)
Prerequisite: EEB/BIO 323 HI or EEB/ZOO 362 HI
Exclusion: ZOO389HI

## EEB398H0/ Independent Experiential Study Project 399Y0

An instructor-supervised group project in an off-campus setting. See page 47 for details.

## 400-SERIES COURSES

NOTE: EEB 494YI, 495YI, 496YI are courses that are advanced in level and broad in scope, emphasizing the integration of related sub-disciplines, critical thinking, and the synthesis of ideas often crossing disciplinary boundaries. These courses, generally taken in fourth year, demand active student participation, and typically involve several instructors. Students can normally enrol in only one of these courses; students wishing to take more than one should contact the Ecology \& Evolutionary Biology Undergraduate Office.

## EEB428HI Global Change Ecology (formerly BIO428HI)

An examination of organism, population, and ecosystem responses to long-term environmental change occurring at the global scale, with emphasis on human caused perturbation to climate and the carbon, nitrogen, and hydrolic cycles and their ecological effects. (Not offered in 2007-2008).
Prerequisite: I. 0 FCE course from EEB/BIO/BOT/ZOO at the $300+$ series
Exclusion: BIO 428 HI
Recommended preparation: ENV234Y।

## EEB440HI

## Ecology and Evolution of Plant-Animal Interactions (formerly BIO 440 HI )

Major concepts in ecology and evolution from the perspective of plant-animal interactions. The richness of interactions between plants and animals are explored, including antagonistic interactions (e.g., herbivory, carnivorous plants), mutualistic interactions
(e.g., seed dispersal and ant-plant associations), and interactions involving two to many species and across trophic levels. (Not offered in 2007-2008).
Prerequisite: EEB/BIO $30 \mathrm{IHI} / 302 \mathrm{HI} / 303 \mathrm{HI} / 304 \mathrm{HI} / 305 \mathrm{HI} / 306 \mathrm{HI} /$ $307 \mathrm{HI} / 308 \mathrm{HI} / 309 \mathrm{HI} / 3 \mathrm{I} 9 \mathrm{HI} / 32 \mathrm{IHI} / 323 \mathrm{HI} / 324 \mathrm{HI} / 328 \mathrm{HI}$ or equivalent
Exclusion: BIO440HI

## EEB459HI Population Genetics 26L, I3T

 (formerly BIO459HI)A focus on theoretical population genetics, using mathematical models to understand how different evolutionary forces drive allele frequency change. Students learn how to mathematically derive classic results in population genetics. Topics include: drift, coalescence, the relationship between population and quantitative genetics, selection in finite populations, and mutation load. (Offered in alternate years)
Prerequisite: $\mathrm{BIO} 260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}, \mathrm{EEB} / \mathrm{BIO} 323 \mathrm{HI}$
Exclusion: BIO459HI
Recommended preparation: a solid understanding of basic algebra and calculus

EEB460HI | Molecular Evolution |
| :--- |
| (formerly BIO460HI) |

Processes of evolution at the molecular level, and the analysis of
molecular data. Gene structure, neutrality, nucleotide sequence
evolution, sequence evolution, sequence alignment, phylogeny
construction, gene families, transposition.
Prerequisite: BIO250YI/255YI, BIO260HI/HMB265HI
Exclusion: BIO 460 HI
EEB46IHI 26L, 26T

## Genomics

(formerly BIO463HI)
Study of the evolution of genes and genomes. Topics include: gene and genome duplication, molecular phylogenetics, methods of detecting selection, adaptive evolution of proteins, genome size evolution, comparative genomics.
Prerequisite: EEB/BIO 460HI
Exclusion: BIO463HI
EEB462HI Advanced Applications of 13L, 39P Phylogenetic Systematics
(formerly ZOO462HI)
Computer-assisted methods for constructing and testing phylogenetic hypotheses are introduced through lectures and labs. Molecular data are emphasized although morphological data may also be considered. Character coding, maximum parsimony, maximum likelihood, Bayesian inference, and nested clade analyses are discussed. Students prepare a comprehensive term paper based on analysis of individual data sets. (Offered in alternate years)
Prerequisite: EEB/ZOO 362 HI
Exclusion: ZOO462HI
Recommended preparation: basic computer literacy
EEB465HI Topics in Conservation Biology
39L

## (formerly BIO465HI)

The principles of conservation biology from a Canadian and global perspective, including conservation practice and legislation, targets for conservation, methods of assessment and tools for recovery.

# Life Sciences: Ecology and Evolutionary Biology 

This course provides students with an introduction to Canadian biodiversity initiatives, as well as insights into the current questions in conservation biology.
Prerequisite: One of EEB/BIO $3 \mathrm{I} 9 \mathrm{HI} / 32 \mathrm{IHI} / / 323 \mathrm{HI} / 324 \mathrm{HI} / 365 \mathrm{HI}$ or EEB/ZOO 322 HI , plus one other course in behaviour, ecology, evolution or genetics
Exclusion: BIO 465 HI

## EEB468HI Lectures in Limnology 26L (formerly BIO468HI)

Basic ecological principles and applied issues of physical, chemical and biological (microbes, algae, plants, invertebrates, fish) interaction in lakes and streams. Same lectures as EEB469HI, but no practical work. Major paper is expected to be equivalent to the field work required in EEB469HI. (Not offered in 2007-08; next offered in Fall 2008)
Exclusion: $\mathrm{BIO} 368 \mathrm{HI} / 468 \mathrm{HI} / 469 \mathrm{YI}$ or $\mathrm{EEB} / \mathrm{BIO} 469 \mathrm{HI}$
Prerequisite: CHM $(138 \mathrm{HI}, 139 \mathrm{HI}) / I 5 \mathrm{IYI}, \mathrm{EEB} / \mathrm{BIO} 319 \mathrm{HI} / 32 \mathrm{IHI}$ or ENV234YI

## EEB469HI

Limnology
26L,TBA (formerly BIO469HI)
Basic ecological principles and applied issues of physical, chemical, and biological (microbes, algae, plants, invertebrates, fish) interactions in lakes and streams. Mandatory one-week field trip at the end of the summer preceding the Fall session to learn standard sampling techniques and data analysis and start integrating principles we will learn in class. No other labs during Fall session. An activity fee is collected. (Not offered in 2007-08; next offered in Fall 2008)
Exclusion: BIO $368 \mathrm{HI} / 468 \mathrm{HI} / 469 \mathrm{HI} / 469 \mathrm{YI} / \mathrm{EEB} 468 \mathrm{HI}$
Prerequisite: CHM (I38HI, I39HI)/I5IYI, EEB/BIO $319 \mathrm{HI} / 32 \mathrm{IH}$ or ENV234Y

EEB47IHI Quantitative Ecology 26L, 39P (formerly BIO47IHI)
This course examines aspects of quantitative ecology including approaches to ecological sampling, multivariate analysis of ecological communities and environmental conditions, null models, and spatial ecology. (Not offered in 2007-2008)
Prerequisite: EEB/BIO $319 \mathrm{HI} / 32 \mathrm{IHI}$ and a course in statistics Exclusion: BIO 47 HI

## EEB494YI Seminar in Evolutionary Biology 78S (formerly BIO494YI)

Topics include evolutionary ecology and genetics, biodiversity, and behavioural ecology. Primary literature and research seminars form the basis for class discussion and short seminars. Discussions are led by students. Each instructor is responsible for a separate module.
Prerequisite: EEB/BIO $323 \mathrm{HI}, 324 \mathrm{HI}$; one of EEB/BIO 319 HI , 32 IHI , or EEB/ZOO 322 HI ; min. CGPA of 2.5; permission of instructor
Exclusion: BIO494YI

## EEB495YI Seminar in Ecology

 52S (formerly BIO495YI)Student-directed roundtable on current topics in ecology. The topics vary from year to year. The seminar activities include both oral and written analyses of current research articles, and may include group projects. Critical discussion of research methods is an important component of the course.
Prerequisite: EEB/BIO $319 \mathrm{HI} / 32 \mathrm{IHI}$; one of EEB/BIO $319 \mathrm{HI} / 32 \mathrm{IHI} / 324 \mathrm{HI} / 365 \mathrm{HI} / \mathrm{ENV} 234 \mathrm{YI}$; min. CGPA of 2.5; permission of instructor
Exclusion: BIO495YI

EEB496YI

## Seminar in Behaviour and <br> Behavioural Ecology

$52 S$
(formerly BIO496YI)
Topics may include: history of ethology, behavioural ecology including predator-prey interactions, mate choice, and foraging. Evaluation is based on presentations, participation in class discussions and written assignments.
Prerequisite: EEB/ZOO 322 HI ; one of EEB/BIO $323 \mathrm{HI} / 324 \mathrm{HI}$,
PSY $397 \mathrm{HI} / J Z P 326 \mathrm{HI}, \mathrm{PSY} 362 \mathrm{HI} / 369 \mathrm{HI}$, EEB/ZOO 362 HI , or a biology field course; min. CGPA of 2.5; permission of instructor
Exclusion: BIO496YI

## EEB497HI/ Project in Ecology and TBA

 498YI Evolutionary Biology IAn original research project (a literature review alone is not sufficient) requiring the prior consent of a member of the Department to supervise the project. The topic is to be one mutually agreed on by the student and supervisor. They must arrange the time, place, and provision of any materials and submit to the Undergraduate Office a signed form of agreement outlining details prior to being enrolled. This course is normally open only to Fourth-Year students with adequate background in ecology, evolutionary biology or behaviour. A copy of the final written report is submitted to the Undergraduate Office. Students are also required to give an oral presentation of the results and/or participate in a poster session. Students should contact their potential supervisor no later than April/May for projects that commence in September.
Exclusion: If EEB497HI is taken then EEB498YI may not be taken
for credit; BOT460YI/46IHI/462YI, ZOO498YI/499YI
Prerequisite: Permission of Department
EEB499YI Project in Ecology and
TBA Evolutionary Biology II
Allows students to do a second independent project, supervision of which must be different from EEB497HI/498YI. Operates in the same manner as EEB498YI.
Exclusion: BOT462YI; ZOO499YI
Prerequisites: EEB497HI/498YI or BOT460YI or ZOO498YI and permission of Department

## Collaborative program of the Faculty of Arts \& Science and the Faculty of Medicine

## Faculty

## Associate Professor and Program Director <br> Valerie M.Watt, Ph D

Senior Lecturer and Associate Program Director
R.G.Wilson Jr., MSc, Ph D

The Human Biology Programs are available to students entering their second year of study. Our multi-disciplinary programs integrate courses from the medical sciences, biological and social sciences, as well as the humanities. The goal of each program is to provide a broad education focused on an area of biological science relevant to humans. Students will receive a solid foundation in life science courses together with insight from the humanities and social sciences. Graduates will be equipped with a broad range of knowledge and skills to go into the job market or pursue further study in research, health sciences, biotechnology, law, education, and administration (check our web site at http://www.hmb.utoronto.ca for more career paths).

Humans are first and foremost animals, living organisms. As such, they share fundamental characteristics with all life - structure, chemistry, control mechanisms, behaviour, an ecological context, and an evolutionary history. Thus the study of human biology must entail a sound knowledge of basic life science. Humans have also developed unique characteristics, emergent properties, arising from their highly complex brains - their intricate behaviour, communication and conceptual abilities, and social structures. So a fuller appreciation of their biology also needs an understanding drawn from disciplines such as psychology, anthropology, and sociology. The Human Biology Programs are designed to do this.

We offer multiple Specialist programs as well as a Major program. The Genes, Genetics \& Biotechnology Specialist program focuses on various aspects of genetics, including options in molecular and population genetics, and how genetics applies to the emerging fields of bioengineering and of biotechnology. The Global Health Specialist program provides worldwide perspectives on health and medicine encompassing social, political, and economic environments. The Health and Disease Specialist program examines the functioning of living organisms and how they respond to environmental conditions (both internal and external) that cause disease. The Neuroscience Specialist program, relevant to all aspects of the nervous system covers topics as diverse as mechanisms of learning and memory, pain, Alzheimer's disease and movement disorders such as Parkinson's disease and Lou Gehrig's disease. The Human Biology Major program provides a broad and flexible course of studying the basic medical sciences as well as other life sciences. The Environment \& Health Specialist program provides a basic understanding of the complex relationships between the behaviour of Planet Earth and the working of the human body.

The first year for both Genes, Genetics and Biotechnology and the Health and Disease programs consists of 100level courses in Biology, Chemistry and either Calculus or Physics, plus an introductory course in one of Anthropology, Philosophy, Psychology, Social Geography, or Sociology. This choice should be influenced by which of these areas students want to pick courses from in the upper years. The first year for Neuroscience is similar in requiring Biology, Chemistry and either Calculus of Physics, but students will need an introductory course in psychology for this program. For these three specialist programs, you are strongly recommended to take both calculus and physics in either first or second year. Both are important for higher-level life science courses and other life science programs. The first year of the Global Health program consists of a biology and physical science core and establishes an environment or resources management stream, complemented by a social science or humanities course.
Each of the specialist programs has core courses in second and third years tailored to meet the specific needs of its students. These courses concentrate on an area important to the program theme, and/or emphasize the interdisciplinary nature of the program theme by showing connections between its different subject areas. Each program requires a laboratory half course in third year; students may take either the appropriate HMB lab course, or one of the others listed. To complete the program, students will be able to choose from a range of options in third and fourth years, depending on their interests and which courses students have already taken, as well as availability. Options include 400-level advanced seminar courses and advanced research "project" courses.
The Human Biology Programs also includes a Human Biology Major, which provides a foundation of study in the life sciences. This program builds on a background in biology, chemistry and a choice of psychology, physics or mathematics. The upper years provide exposure to several disciplines within the life sciences. Students acquire a broad knowledge base which is valuable not only for those intending to pursue a career in science, but also for those with career interests in other areas such as business or education. For further information about the programs, see http://www.hmb.utoronto.ca or contact the Human Biology Programs Office, New College, 300 Huron Street (416) 9465393 or e-mail us at human.biology@utoronto.ca.

## Human Biology Programs

## Genes, Genetics and Biotechnology (Science program)

## Specialist program:

(14.5 to 15 full courses or their equivalent, including at least two 400-series courses)
Enrolment in this program is limited, and will be based on cGPA. Enrolment requires completion of four courses including the first year prerequisite courses.

## First Year:

I. BIO I50YI
2. $\mathrm{CHM} \mathrm{I} 38 \mathrm{HI}, 139 \mathrm{HI}$
3. I.0 FCE from: MAT I35YI/I36YI/I37YI/I57YI; PHY IIOYI/I38YI/I40YI
4. 0.5 to 1.0 FCE from:ANT 100 Y ; ECO 100 YI ; GGR I07YI/I24YI; PHL I00YI/I02YI; PSY IOOHI;SOC IOIYI; VIC I70YI/I7IYI
Second Year:
I. $\mathrm{HMB} 201 \mathrm{HI}, 265 \mathrm{HI} / \mathrm{BIO} 260 \mathrm{HI}, \mathrm{BCH} 210 \mathrm{HI}, \mathrm{BIO}$ $250 \mathrm{YI} / 255 \mathrm{YI}, \mathrm{CHM} 247 \mathrm{HI}$
2. I.0 FCE from:ANT $203 \mathrm{YI} / 204 \mathrm{YI}$; ENV 236 YI ; GGR 220YI/233YI/246HI/256HI/270HI;WGS 26IYI; PHL $240 \mathrm{HI} / 245 \mathrm{HI} / 255 \mathrm{HI} / 273 \mathrm{HI} / 275 \mathrm{HI} / 28 \mathrm{IYI} ; \mathrm{SOC}$ 205YI/207YI/2IOYI/2I2YI/2I3YI/2I4YI/220YI/242YI $/ 243 \mathrm{HI} / 244 \mathrm{HI} / 246 \mathrm{HI} / 247 \mathrm{HI} / 260 \mathrm{YI} / 263 \mathrm{HI}$
Higher Years:
I. HMB $30 \mathrm{IHI}, 32 \mathrm{IHI}, \mathrm{CSB} 349 \mathrm{HI}$
2. 0.5 FCE science laboratory from: $\mathrm{HMB} 3 \mathrm{II} \mathrm{HI} ; \mathrm{BCH} 370 \mathrm{HI}$; CSB $330 \mathrm{HI} / 350 \mathrm{HI}$; MGY 376 HI ; PSL 372 HI
3. 2.0 FCE from the sciences:ANA $301 \mathrm{HI} ; \mathrm{BCH} 300$-series (see Note I below); CSB $310 \mathrm{HI} / 325 \mathrm{HI} / 327 \mathrm{HI} / 328 \mathrm{HI} /$ $329 \mathrm{HI} / 33 \mathrm{IHI} / 332 \mathrm{HI} / 340 \mathrm{HI} / 345 \mathrm{HI} / 347 \mathrm{HI} / 35 \mathrm{IYI} / /$ $352 \mathrm{HI} / 353 \mathrm{HI} / 357 \mathrm{HI}$; EEB $323 \mathrm{HI} / 324 \mathrm{HI} / 34 \mathrm{IHI} ; \mathrm{IMM}$ 334 YI ; JZP 326 HI ; LMP $30 \mathrm{IHI} / 363 \mathrm{HI}$; MGY $377 \mathrm{HI} / 378 \mathrm{HI}$; NFS $284 \mathrm{HI} / 386 \mathrm{HI}$; PCL $20 \mathrm{IHI} / 302 \mathrm{HI}$; PSL 302 YI
4. I. 0 FCE from a Bio-Social or Social perspective: ANT 300series; GGR $314 \mathrm{HI} / 33 \mathrm{IHI} / 333 \mathrm{HI} / 334 \mathrm{HI} / 335 \mathrm{HI} / 338 \mathrm{HI} /$ $393 \mathrm{HI} ; \mathrm{HPS} 318 \mathrm{HI} / 3 \mathrm{I} 9 \mathrm{HI} / 324 \mathrm{HI} / 326 \mathrm{HI} / 350 \mathrm{HI} / 353 \mathrm{HI} /$ $355 \mathrm{HI} ; W G S ~ 365 \mathrm{HI} / 366 \mathrm{HI} / 367 \mathrm{HI} / 368 \mathrm{HI} / 372 \mathrm{HI} / 373 \mathrm{HI}$; PHL $34 \mathrm{IHI} / 342 / 344 \mathrm{HI} / 345 \mathrm{HI} / 347 \mathrm{HI} / 349 \mathrm{HI} / 38 \mathrm{IHI} /$ $383 \mathrm{HI} / 384 \mathrm{HI}$; SOC $303 \mathrm{HI} / 306 \mathrm{YI} / 309 \mathrm{YI} / 3 \mathrm{I} 2 \mathrm{YI} / 3 \mathrm{I} 7 \mathrm{YI} /$ $320 \mathrm{YI} / 327 \mathrm{YI} / 339 \mathrm{HI} / 344 \mathrm{YI} / 347 \mathrm{HI} / 355 \mathrm{YI} / 356 \mathrm{YI} / 363 \mathrm{HI} /$ $365 \mathrm{YI} / 366 \mathrm{HI} / 369 \mathrm{YI} / 370 \mathrm{YI} / 373 \mathrm{HI} / 374 \mathrm{HI} / 375 \mathrm{YI} / 38 \mathrm{IYI} /$ $382 \mathrm{YI} / 385 \mathrm{YI} / 386 \mathrm{YI} / 388 \mathrm{HI}$
5. I.0 FCE from a 400-level science series (see Note 3. below): HMB $42 \mathrm{IHI} / 435 \mathrm{HI} ; \mathrm{BCH} 400$-series (see Note I below); CSB $428 \mathrm{HI} / 429 \mathrm{HI} / 430 \mathrm{HI} / 452 \mathrm{HI} / 458 \mathrm{HI} / 459 \mathrm{HI} /$ $460 \mathrm{HI} / 46 \mathrm{IHI} / 472 \mathrm{HI} / 474 \mathrm{HI} / 482 \mathrm{YI}$; EEB $459 \mathrm{HI} / 460 \mathrm{HI} /$ 463HI; LMP 400 -series; MGY 400 Series (see Note 2 below); NFS 400 -series; PCL 477 HI ; PSL 400 -series
6. I. 0 FCE from a 400 -level Science, Bio-social or Social Perspective (see Note 3 below):ANT $428 \mathrm{HI} / 429 \mathrm{HI} /$ $433 \mathrm{HI} / 448 \mathrm{HI} / 450 \mathrm{HI} ;$ GGR $4 \mathrm{I} 5 \mathrm{HI} / 4 \mathrm{I} 6 \mathrm{HI} / 439 \mathrm{HI} / 450 \mathrm{HI}$; PHL $407 \mathrm{HI} / 440 \mathrm{HI} / 470 \mathrm{HI} / 475 \mathrm{HI} / 482 \mathrm{HI} / 483 \mathrm{HI} ; J F G$ 475HI; NEW 425YI/465HI; HMB 420HI/42IHI/435HI/ $438 \mathrm{HI} / 498 \mathrm{YI} / 499 \mathrm{YI}$; BCH 400 -series (see Note I below); CSB $428 \mathrm{HI} / 429 \mathrm{HI} / 430 \mathrm{HI} / 452 \mathrm{HI} / 458 \mathrm{HI} / 459 \mathrm{HI}$ $/ 460 \mathrm{HI} / 46 \mathrm{IHI} / 472 \mathrm{HI} / 474 \mathrm{HI} / 482 \mathrm{YI}$; EEB $459 \mathrm{HI} / 460 \mathrm{HI} /$ 463 HI ; LMP 400 -series; MGY 400 -series (see Note 2 below); PHC 400-series; PSL 400-series

## GlobalHealth (Science program)

## Specialist program:

(I5.5 to 16 full courses or their equivalent, including at least two 400-series courses)
Enrolment in this program is limited, and will be based on cGPA. Enrolment requires completion of four courses including the first year prerequisite courses.

## First Year:

I. BIO I50YI
2. I. 0 FCE from: CHM I $38 \mathrm{HI}, \mathrm{I} 39 \mathrm{HI}$; MAT I $35 \mathrm{YI} / \mathrm{I} 36 \mathrm{YI} /$ I37YI/I57YI; PHY IIOYI/I38YI/I40YI
3. I. 0 FCE from:ANT IOOYI; GGR IOOYI/IO7YI/I24YI
4. 0.5 to I. 0 FCE from: PHL IOOYI; PSY IOOHI; SOC IOIYI; TRN I50Y/I5IY;VIC I70YI/I7IYI;NEW I50Y; POL I05Y/I08Y

Second Year:
I. HMB $203 \mathrm{HI}, \mathrm{BIO} 250 \mathrm{YI} / 255 \mathrm{YI}$, STA 220 HI
2. I.0 FCE from Environment or Resource Management: EEB 215 HI ; ENV 200YI; FOR20IHI; GGR $201 \mathrm{HI} / 203 \mathrm{HI} /$ 206HI/233YI; JEG 22 IYI
3. I.0 FCE from Social, Cultural or Political Science: ANT 204YI; GGR 220YI/256HI;WGS 26IYI; PHL 273HI/275HI/28IYI; POL 20IYI/208YI; PSY 220HI; SOC205YI/2IOYI/2I4YI/242YI/246HI/247HI
Second Year and Higher Years:
I. I. 0 FCE from Biological Sciences:ANT 203YI; BCH 210 HI ; BIO 252YI; BOT 252YI; EEB225HI/263YI/265YI; ENV 234YI/236YI; HMB 265HI; PSL302YI; STA22IHI
2. HMB 303 HI
3. 0.5 FCE in Laboratory Sciences: HMB 3 I 2 HI ; BCH 370 HI ; MGY 376 HI ; PSL 372 HI ; CSB 330 HI
4. I. 0 FCE from Basic Medical Sciences: LMP 363 HI ; NFS 284 HI ; MGY $377 \mathrm{HI} / 388 \mathrm{HI}$; CSB 35 IYI
5. I. 0 FCE from Ecology/Evolution: EEB $319 \mathrm{HI} / 32 \mathrm{IHI} / 323 \mathrm{HI} /$ $324 \mathrm{HI} / 328 \mathrm{HI} / 362 \mathrm{HI} / 365 \mathrm{HI}$; CSB $349 \mathrm{HI} / 357 \mathrm{HI} / 375 \mathrm{HI}$
6. I. 0 FCE from Environmental Issues: GGR $303 \mathrm{HI} / 305 \mathrm{HI} /$ $307 \mathrm{HI} / 3 \mathrm{I} 2 \mathrm{HI} / 3 \mathrm{I} 4 \mathrm{HI}$; ENV $32 \mathrm{IHI} ;$ FOR $302 \mathrm{HI} / 303 \mathrm{HI}$
7. I. 0 FCE from Social Sciences or Humanities:ANT $348 \mathrm{YI} / 349 \mathrm{HI} / 364 \mathrm{YI}$, ENV 350 HI ; GGR $334 \mathrm{HI} / 338 \mathrm{HI} /$ $393 \mathrm{HI} ; \mathrm{INI} 320 \mathrm{YI} / 32 \mathrm{HI} / 4 \mathrm{HI} / 35 \mathrm{HI} ; \mathrm{JIE} 307 \mathrm{YI} ; W G S$ $367 \mathrm{HI} / 72 \mathrm{HI} ; \mathrm{PHL} 373 \mathrm{HI} / 380 \mathrm{HI} / 38 \mathrm{IH} / 382 \mathrm{HI} / 383 \mathrm{HI} /$ $384 \mathrm{HI}, \mathrm{POL} 30 \mathrm{IYI} / 3 \mathrm{I} 7 \mathrm{YI} / 343 \mathrm{YI} / 346 \mathrm{HI} / 350 \mathrm{HI} / 380 \mathrm{HI} /$ 380YI; PSY $333 \mathrm{HI} / 335 \mathrm{HI}$; SOC $309 \mathrm{YI} / 3 \mathrm{I} 2 \mathrm{YI} / 327 \mathrm{YI} /$ 38IYI
8. I. 0 FCE from 400-level Science/Env/Eco series: HMB $420 \mathrm{HI} / 438 \mathrm{HI}$; CSB $452 \mathrm{HI} / 458 \mathrm{HI}$; EEB $428 \mathrm{HI} / 440 \mathrm{HI} /$ $459 \mathrm{HI} / 462 \mathrm{HI} / 465 \mathrm{HI} / 469 \mathrm{HI} / 47 \mathrm{IHI} / 495 \mathrm{YI} ;$ GGR $403 \mathrm{HI} / 409 \mathrm{HI} ;$ LMP $402 \mathrm{HI} / 406 \mathrm{HI} / 436 \mathrm{H} ;$ MGY $434 \mathrm{HI} / 440 \mathrm{HI}$; MIJ 485 HI ; NFS $486 \mathrm{HI} / 487 \mathrm{HI} / 490 \mathrm{HI}$; PSL $420 \mathrm{HI} / 42 \mathrm{IHI} / 470 \mathrm{HI} / 472 \mathrm{HI}$
9. I. 0 FCE from 400 -level Soc/Hum/Proj series: HMB $420 \mathrm{HI} / 438 \mathrm{HI} / 498 \mathrm{YI} / 499 \mathrm{YI} ; \mathrm{ANT} 427 \mathrm{HI} / 440 \mathrm{YI} /$ $448 \mathrm{HI} / 450 \mathrm{HI} / 452 \mathrm{HI} / 455 \mathrm{YI}$; ENV $423 \mathrm{HI} / 44 \mathrm{IHI} ; \mathrm{GGR}$ $415 \mathrm{HI} / 4 \mathrm{I} 8 \mathrm{HI} / 439 \mathrm{HI} / 450 \mathrm{HI} / 45 \mathrm{IHI} ; J F G 475 \mathrm{HI} ; \mathrm{INI}$ $422 \mathrm{HI} / 446 \mathrm{HI}$; NEW $425 \mathrm{YI} / 465 \mathrm{HI}$; POL $40 \mathrm{IHI} / 4 \mathrm{I} 2 \mathrm{HI} /$ 4I3HI/4I7YI/4I8YI; PHL 4I5HI/440HI/447YI/ $470 \mathrm{HI} / 482 \mathrm{HI} ; T R N$ 4IOYI/4IIYI/4I9YI/42IYI, UNI $4 \mathrm{IOHI} / 464 \mathrm{HI}$

## Health and Disease (Science program)

## Specialist program:

( 14.5 to 15 full courses or their equivalent, including at least two 400-series courses)
Enrolment in this program is limited, and will be based on cGPA. Enrolment requires completion of four courses including the first year prerequisite courses.

First Year:
I. BIO 150 Y I
2. CHM I38HI, I39HI
3. I.0 FCE from: MAT I35YI/I36YI/I37YI/I57YI; PHY IIOYI/I38YI/I40YI
4. 0.5 to I.0 FCE from:ANT I00YI; GGRI07YI; GGRI24YI; PHL I00YI/PHLI02YI; PSY I00HI;SOC IOIYI;VIC I70YI/I7IYI
Second Year:
I. $\mathrm{HMB} 202 \mathrm{HI}, 265 \mathrm{HI} / \mathrm{BIO} 260 \mathrm{HI} ; \mathrm{BCH} 210 \mathrm{HI} ; \mathrm{BIO}$ $250 \mathrm{YI} / 255 \mathrm{YI} ; \mathrm{CHM} 247 \mathrm{HI}$

## Life Sciences: Human Biology

2. I. 0 FCE from:ANT $203 \mathrm{YI} / 204 \mathrm{YI}$; ENV 236 YI ; GGR $220 \mathrm{YI} / 233 \mathrm{YI} / 246 \mathrm{HI} / 256 \mathrm{HI} / 270 \mathrm{HI}$;WGS 26IYI; PHL $240 \mathrm{HI} / 245 \mathrm{HI} / 237 \mathrm{HI} / 255 \mathrm{HI} / 275 \mathrm{HI} / 28 \mathrm{IYI} ; \mathrm{SOC}$ 205YI/207YI/2IOYI/2I2YI/2I3YI/2I4YI /220YI/242YI/ $246 \mathrm{HI} / 247 \mathrm{HI} / 260 \mathrm{YI} / 263 \mathrm{HI}$
Higher Years:
I. HMB 302 HI ; CSB 349 HI ; MGY $377 \mathrm{HI}, 378 \mathrm{HI}$; PSL 302 Y I
3. 0.5 FCE science laboratory from: $\mathrm{HMB} 3 \mathrm{I} 2 \mathrm{HI} ; \mathrm{BCH} 370 \mathrm{HI}$; MGY 376HI; PSL 372HI; CSB 330HI
4. 0.5 FCE from the sciences:ANA $300 \mathrm{YI} / 30 \mathrm{IHI} / 304 \mathrm{YI}$; BIO $25 \mathrm{IYI} / 252 \mathrm{YI} ; \mathrm{CSB} 325 \mathrm{HI} / 327 \mathrm{HI} / 328 \mathrm{HI} / 329 \mathrm{HI} / 33 \mathrm{IHI} /$ $332 \mathrm{HI} / 340 \mathrm{HI} / 345 \mathrm{HI} / 346 \mathrm{HI} / 347 \mathrm{HI} / 35 \mathrm{IYI} / 353 \mathrm{HI} / 357 \mathrm{HI}$; BCH 300-series (see Note I below); EEB $33 \mathrm{IHI} / 340 \mathrm{HI} /$ 34 IHI ; IMM 334YI; JZM 357HI/358HI; PSY 397HI; LMP $30 \mathrm{IHI} / 363 \mathrm{HI} ; \mathrm{NFS} 284 \mathrm{HI} / 386 \mathrm{HI} ; \mathrm{PCL} 20 \mathrm{HI} / 302 \mathrm{HI} /$ 362 HI ; PSL 303YI
5. I.0 FCE from a Bio-Social or Social perspective:ANT 300 -series; GGR $3 \mathrm{I} 4 \mathrm{HI} / 33 \mathrm{IHI} / 333 \mathrm{HI} / 334 \mathrm{HI} / 335 \mathrm{HI} /$ $338 \mathrm{HI} / 393 \mathrm{HI} ; \mathrm{HPS} 3 \mathrm{I} 8 \mathrm{HI} / 3 \mathrm{I} 9 \mathrm{HI} / 323 \mathrm{HI} / 324 \mathrm{HI} / 326 \mathrm{HI} /$ $328 \mathrm{HI} / 333 \mathrm{HI} / 350 \mathrm{HI} ; W G S 365 \mathrm{HI} / 366 \mathrm{HI} / 367 \mathrm{HI} / 368 \mathrm{HI} /$ $372 \mathrm{HI} / 373 \mathrm{HI} ; \mathrm{PHL} 34 \mathrm{IHI} / 342 \mathrm{HI} / 345 \mathrm{HI} / 347 \mathrm{HI} / 349 \mathrm{HI} /$ $38 \mathrm{IHI} / 383 \mathrm{HI} / 384 \mathrm{HI} ; S O C 303 \mathrm{HI} / 306 \mathrm{YI} / 309 \mathrm{YI} / 3 \mathrm{I} 2 \mathrm{YI} /$ $3 \mathrm{I} 7 \mathrm{YI} / 320 \mathrm{YI} / 327 \mathrm{YI} / 339 \mathrm{HI} / 344 \mathrm{YI} / 347 \mathrm{HI} / 355 \mathrm{YI} / 356 \mathrm{YI} /$ $363 \mathrm{HI} / 365 \mathrm{YI} / 366 \mathrm{HI} / 369 \mathrm{YI} / 370 \mathrm{YI} / 373 \mathrm{HI} / 374 \mathrm{HI} / 375 \mathrm{YI} /$ $38 \mathrm{IYI} / 382 \mathrm{YI} / 385 \mathrm{YI} / 386 \mathrm{YI} / 388 \mathrm{HI}$
6. I. 0 FCE from a 400 -level science series (see Note 3. below): HMB $422 \mathrm{HI} / 432 \mathrm{HI} / 435 \mathrm{HI}$; BCH 400 -series (See Note I below); CSB $428 \mathrm{HI} / 429 \mathrm{HI} / 430 \mathrm{HI} / 452 \mathrm{HI} / 458 \mathrm{HI} /$ $460 \mathrm{HI} / 46 \mathrm{IHI} / 472 \mathrm{HI} / 482 \mathrm{YI}$; EEB $460 \mathrm{HI} / 463 \mathrm{HI}$; IMM $429 \mathrm{HI} / 430 \mathrm{HI} / 435 \mathrm{HI} ; \mathrm{JBI} 428 \mathrm{HI}$; PSY $497 \mathrm{HI} ;$ LMP $400-$ series; MGY 400-series; NFS 400-series; PCL 470YI/47IYI/ $473 \mathrm{YI} / 475 \mathrm{YI} / 477 \mathrm{HI} / 48 \mathrm{IHI}$; PSL 400 -series
7. I. 0 FCE from a 400 -level Science, Bio-social or Social Perspective (see Note 3. below):ANT $428 \mathrm{HI} / 429 \mathrm{HI} /$ $433 \mathrm{HI} / 434 \mathrm{HI} / 440 \mathrm{YI} / 448 \mathrm{HI} / 449 \mathrm{HI} / 450 \mathrm{HI}$; GGR $4 \mathrm{I} 5 \mathrm{HI} / 4 \mathrm{I} 6 \mathrm{HI} / 439 \mathrm{HI} / 450 \mathrm{HI} ; \mathrm{PHL} 407 \mathrm{HI} / 440 \mathrm{HI} / 470 \mathrm{HI} /$ $475 \mathrm{HI} / 482 \mathrm{HI} / 483 \mathrm{HI} ; J F G 475 \mathrm{HI}$; NEW $425 \mathrm{YI} / 465 \mathrm{HI}$; BCH 400 -series (See Note I below); CSB $428 \mathrm{HI} / 429 \mathrm{HI} /$ $430 \mathrm{HI} / 452 \mathrm{HI} / 458 \mathrm{HI} / 460 \mathrm{HI} / 46 \mathrm{IHI} / 472 \mathrm{HI} / 482 \mathrm{YI} ;$ EEB $460 \mathrm{HI} / 463 \mathrm{HI} ; \mathrm{HMB} 420 \mathrm{HI} / 422 \mathrm{HI} / 432 \mathrm{HI} / 435 \mathrm{HI} / 438 \mathrm{HI} /$ 498YI/499YI; IMM $429 \mathrm{HI} / 430 \mathrm{HI} / 435 \mathrm{HI}$; JBI 428 HI ; JZP 428 HI ; MIJ 485 H ; LMP 400-series; MGY 400-series; NFS $484 \mathrm{HI} / 486 \mathrm{HI} / 488 \mathrm{HI} / 490 \mathrm{HI} ; \mathrm{PCL} 470 \mathrm{YI} / 47 \mathrm{IYI} / 473 \mathrm{YI} /$ $475 \mathrm{YI} / 48 \mathrm{IHI} ;$ PHC 400 Series; PSL 400-series

## Neuroscience (Science program)

## Specialist program:

(13.5 to 14 full courses or their equivalent, including at least two 400-series courses)
Enrolment in this program is limited, and will be based on cGPA. Enrolment requires completion of four courses including the first year prerequisite courses.
First Year:
I. BIO I50YI
2. CHM $138 \mathrm{HI}, 139 \mathrm{HI}$
3. I. 0 FCE from: MAT I $35 \mathrm{YI/I36YI/I37YI/I57YI;} \mathrm{PHY}$ IIOYI/I38YI
4. PSY 100 HI

Second Year:
I. HMB $204 \mathrm{HI}, \mathrm{HMB} 265 \mathrm{HI} / \mathrm{BIO} 260 \mathrm{HI}, \mathrm{BCH} 210 \mathrm{HI} / \mathrm{CHM}$ 247HI, BIO $250 \mathrm{YI} / 255 \mathrm{YI}$; STA $220 \mathrm{HI} / \mathrm{PSY} 20 \mathrm{HI}$
2. 0.5 FCE from:ANT $204 \mathrm{YI} / 253 \mathrm{HI} / \mathrm{LIN} 200 \mathrm{HI} / \mathrm{PSY}$ $260 \mathrm{HI} / 270 \mathrm{HI} / 280 \mathrm{HI}$
3. PSL $300 \mathrm{HI} / \mathrm{BIO} 252 \mathrm{YI}$

Higher Years:
I. $\mathrm{HMB} 300 \mathrm{HI}, 310 \mathrm{HI}, 320 \mathrm{HI}, \mathrm{CSB} 349 \mathrm{HI} / \mathrm{PSL} 350 \mathrm{HI}$
2. 2.0 FCE from: CSB $325 \mathrm{HI} / 328 \mathrm{HI} / 330 \mathrm{HI} / 332 \mathrm{HI} / 345 \mathrm{HI} /$ $346 \mathrm{HI} / 347 \mathrm{HI}$; EEB 322 HI ; JAL $355 \mathrm{HI} ;$ JLP $315 \mathrm{HI} / 374 \mathrm{HI}$; PCL $20 \mathrm{IHI} / 302 \mathrm{HI}$; PSL $30 \mathrm{IHI} / 303 \mathrm{YI} / 372 \mathrm{HI} / 374 \mathrm{HI}$; PSY $202 \mathrm{HI} / 342 \mathrm{HI} / 37 \mathrm{IHI} / 372 \mathrm{HI} / 373 \mathrm{HI} / 375 \mathrm{HI} / 393 \mathrm{HI} / 394 \mathrm{HI} /$ $396 \mathrm{HI} / 397 \mathrm{HI} ; W G S 372 \mathrm{HI}$
3. 2.0 FCE from 400 -level Science Series: HMB $400 \mathrm{YI} / 420 \mathrm{HI}$; CSB $425 \mathrm{HI} / 428 \mathrm{HI} / 430 \mathrm{HI}$; EEB $459 \mathrm{HI} / 496 \mathrm{YI} ; \mathrm{JLS} 474 \mathrm{HI}$; JLP $47 \mathrm{IHI} ;$ PCL $475 \mathrm{YI} ;$ PSL $432 \mathrm{HI} / 440 \mathrm{YI} / 443 \mathrm{HI} / 444 \mathrm{YI} /$ $450 \mathrm{HI} / 452 \mathrm{HI} / 454 \mathrm{HI} / 472 \mathrm{HI} ;$ PSY $440 \mathrm{HI} / 460 \mathrm{HI} / 470 \mathrm{HI} /$ $47 \mathrm{IHI} / 480 \mathrm{HI} / 490 \mathrm{HI} / 497 \mathrm{HI}$

## Human Behavioural Biology (Science program) <br> **This specialist program is being amalgamated with Neuroscience and will no longer be offered. Students admitted prior to September 2005 may complete their program as described below**

## Specialist program:

(I5 full courses or their equivalent, including at least two 400series courses)
Enrolment in this program is limited, and will be based on cGPA. Enrolment requires completion of four courses including the first year prerequisite courses.
First Year:
I. BIO 150 Y I
2. CHM I38HI, I39HI
3. MAT I $35 \mathrm{YI} / \mathrm{I} 36 \mathrm{Y} I / / 37 \mathrm{YI} / I 57 \mathrm{Y} \mathrm{I}$
4. PSY 100 HI

Second Year:
I. HMB $200 \mathrm{HI}, \mathrm{BCH} 210 \mathrm{HI} / \mathrm{CHM} 247 \mathrm{HI}, \mathrm{BIO} 250 \mathrm{YI} /$ BIO255YI, STA $220 \mathrm{HI} / \mathrm{PSY} 201 \mathrm{HI}$
2. I. 0 FCE from:ANT $203 \mathrm{YI} / 204 \mathrm{YI}$; ENV $222 \mathrm{YI} / 236 \mathrm{YI}$; JAL 253HI/254HI;WGS 26IYI; PHL 28IYI
3. I.5 FCE from: JAL $253 \mathrm{HI} / 254 \mathrm{HI}$; NRS 20 IHI ; PSY $202 \mathrm{HI} / 2 \mathrm{I} 0 \mathrm{HI} / 220 \mathrm{HI} / 230 \mathrm{HI} / 240 \mathrm{HI} / 260 \mathrm{HI} / 270 \mathrm{HI} / 280 \mathrm{HI} /$ 290 HI ; STA 22 IHI
Higher Years:
I. HMB 300 HI
2. 0.5 FCE science laboratory from: HMB 310 HI ; PSL 372 HI ; PSY $3 \mathrm{I} 9 \mathrm{HI} / 369 \mathrm{HI} / 379 \mathrm{HI} / 389 \mathrm{HI} / 399 \mathrm{HI}$
3. 0.5 FCE in Genetics/Evolution from: HMB 265 HI ; EEB $322 \mathrm{HI} / 323 \mathrm{HI} / 324 \mathrm{HI} / 362 \mathrm{HI}$; PSY 390 HI
4. I.5 FCE in Behavioural Systems from: BIO 252YI; CSB 332HI/347HI JZP 326HI; PSL 20IYI/302YI; PSY $375 \mathrm{HI} / 378 \mathrm{HI} / 392 \mathrm{HI} / 393 \mathrm{HI} / 394 \mathrm{HI} / 396 \mathrm{HI}$
5. I.5 FCE from a Bio-Social or Social perspective: ANT 300series; ENV 32 IYI ; JAL $355 \mathrm{YI} / 356 \mathrm{HI}$; JLP $3 \mathrm{I} 5 \mathrm{HI} / 374 \mathrm{HI}$; JPA $305 \mathrm{HI} ; \mathrm{WGS} 372 \mathrm{HI}$; PHL $34 \mathrm{IHI} / 342 \mathrm{HI} / 35 \mathrm{IHI} /$ $38 \mathrm{IHI} / 382 \mathrm{HI} / 383 \mathrm{HI}$; any PSY 300 -series course
6. I. 0 FCE from a 400 -level science series (see Note 3. below): CSB $472 \mathrm{HI} / 485 \mathrm{YI}$; EEB $462 \mathrm{HI} / 494 \mathrm{YI} / 496 \mathrm{YI}$; HMB $420 \mathrm{HI} / 435 \mathrm{HI} / 438 \mathrm{HI} ;$ JZP 428 HI ; LMP 400 -series; PCL $475 \mathrm{YI} ;$ PSL 400 -series; PSY $40 \mathrm{IHI} / 402 \mathrm{HI} / 409 \mathrm{HI} / 420 \mathrm{HI} /$ 490HI
7. I. 0 FCE from a 400 -level Science, Bio-social or Social perspective (see Note 3. below):ANT $425 \mathrm{HI} / 427 \mathrm{HI} /$ $428 \mathrm{HI} / 429 \mathrm{HI} / 433 \mathrm{HI} / 434 \mathrm{HI} / 440 \mathrm{YI} / 44 \mathrm{IHI} ; \mathrm{CSB}$ $485 \mathrm{YI} ; J L P 47 \mathrm{IHI} ; J L S ~ 474 \mathrm{HI} ;$ PHL $407 \mathrm{HI} / 45 \mathrm{IHI} /$ $475 \mathrm{HI} / 48 \mathrm{IHI} / 482 \mathrm{HI} / 483 \mathrm{HI}$; EEB $462 \mathrm{HI} / 494 \mathrm{YI} / 496 \mathrm{YI}$;

HMB $420 \mathrm{HI} / 435 \mathrm{HI} / 438 \mathrm{HI} / 498 \mathrm{YI} / 499 \mathrm{YI} ; J Z P 428 \mathrm{HI}$; PSL $420 \mathrm{HI} / 42 \mathrm{IHI} / 440 \mathrm{Y} / 44 \mathrm{IHI} / 460 \mathrm{HI} / 472 \mathrm{HI}$; PSY $40 \mathrm{IHI} / 402 \mathrm{HI} / 409 \mathrm{HI} / 420 \mathrm{HI} / 490 \mathrm{HI}$
Notes:
I. Students who have completed BCH 2 IOHI with high standing may enrol in 300 -series or 400 -series lecture courses with permission of the Department of Biochemistry program coordinator.
2. Students who have completed $\mathrm{BIO} 349 \mathrm{HI} / \mathrm{CSB} 349 \mathrm{HI}$ with high standing may be eligible to enrol in other MGY 400series courses with permission from the instructor.
3. An independent research or reading course may be used towards the I. 0 FCE 400 -series course. Students will need the approval of the program committee to be eligible for a research or reading course.

## Human Biology (Science program)

## Major program:

( 7.5 to 8 full courses or their equivalent)
Enrolment in this program requires completion of four courses; no minimum GPA required.

First Year:
I. BIO $150 \mathrm{Y}, \mathrm{CHM} \operatorname{I} 38 \mathrm{HI}, \mathrm{I} 39 \mathrm{HI}$
2. 0.5 to I. 0 FCE from: JMB I70YI; MAT I $35 \mathrm{YI/I36YI/}$ I37YI/I57YI; PHY IIOYI/I38YI/I40YI; PSY I00HI;VIC I70YI/I7IYI
Second Year:
I. HMB $265 \mathrm{HI} / \mathrm{BIO} 260 \mathrm{HI}, \mathrm{BCH} 210 \mathrm{HI}, \mathrm{BIO} 250 \mathrm{YI} / 255 \mathrm{YI}$

Third Year:
I. I. 0 FCE from: BIO $25 \mathrm{IYI} / 252 \mathrm{YI}$; PSL 302 Y I
2. I. 0 300+level FCE from: BIO; BOT; EEB; CSB; HMB; PSY; ZOO
3. I. 0 300+level FCE from:ANA; BCH; HMB; IMM; LMP; MGY; NFS; NRS; PCL; PSL (see Note I below)
NOTE I: Courses listed in above may require prerequisites; please check course listings.
NOTE 2: EEB202H/214H/2I5H/216H; CSB200Y will not be considered for program requirements.

## Environment and Health: see Environment,

 Centre for
## Human Biology Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), all HMB courses are classified as SCIENCE courses, with the following exceptions: HMB303HI, HAJ453HI, and HMB498YI. Please see course descriptions below for information.

## HMB200HI Introduction to Evolutionary 26L, I3T Psychology <br> (formerly NRS20IHI)

An introductory course in Human Behavioural biology covering topics and concepts from behavioural genetics and evolutionary psychology. Not offered in 2007/08.
Exclusion: NRS2OIHI
Prerequisite: BIOI50YI, PSYIOOHI

HMB20IHI | Introduction to Genes, |
| :--- |
| Genetics, and Biotechnology |

Interdisciplinary course consisting of three parts: the genetic
basis, tools and techniques of biotechnology; medical,
environmental and agricultural applications; and ethical, legal and
environmental and agricultural applications; and ethical, legal and
social aspects of biotechnology (including approaches to risk assessment, reduction and acceptance). A prime example used in the third part is the controversy over genetically modified foods.
Prerequisite: BIOI50Y।
Co-requisite: BIO 250 Y I

## HMB202HI Introduction to Health 26L, I3P

 and DiseaseAn introductory course in Health and Disease using an interdisciplinary approach that integrates developmental human biology with perspectives from the Social Sciences. An exploration of the key concepts and approaches that is necessary for understanding the dynamic nexus of human health and disease.
Prerequisite: BIOI50YI
HMB203HI Introduction to Global Health 26L, I3T
An introductory course covering the theories, operational components and strategies of implementing primary health care in developing countries. Topics include education, control of vector borne diseases, essential drug provision, maternal and child health and nutrition and incorporation of alternative and complementary technologies, community participation and deployment of health service providers.
Prerequisite: BIOI50YI
HMB204HI Introduction to Neuroscience 26L
A survey of brain systems, including evolution and development of the nervous system, brain stem system for defensive and approach responses, limbic and cortical systems for learning, and higher brain functions. Techniques for study of brain systems including pharmacology, gene targeting and human brain imaging are introduced.
Exclusion: PSY290HI/NRS20IHI
HMB2IOHI Popular Scientific
10L, 16S
Misconceptions
Students engage in a variety of current, high profile misconceptions in human biology to change and extend incorrect common beliefs; to become familiar with the process of scientific inquiry; and to develop thinking, analytical and communication skills. Popular scientific misconceptions will be sourced from current movies, TV shows, and books.
Exclusion: PSY290HI
Prerequisite: BIOI50YI; PSYI00HI/IOIYI
Pre- or co-requisite: PSL300HI/ZOO252YI/PSY39IHI
HMB265HI General and Human Genetics 26L, I3T
An introduction to classical and modern methods of genetic analysis. Topics include Mendelian genetics, the genetics of human population and disease, genomics, and applications of genetics to human society.
Exclusion: BIO260HI, BIO207H5
Prerequisite: BIOI50YI
Co-requisite: BIO 250 YI
HMB300HI Human Behavioural Biology 26L, I3T
Intermediate course for the Specialist program in Neuroscience. Consult web page for more information: http://hmb.utoronto. $\mathrm{ca} / \mathrm{hmb} 300 \mathrm{~h}$.
Prerequisite: HMB200HI/206HI/NRS2OIHI
HMB30IHI Biotechnology 26L, I3T
Intermediate course in biotechnology; topics vary but include the use of vectors, and biochemical pathways in biotechnology.
Prerequisite: HMB2OIHI

## HMB302HI Vertebrate Histology and Histopathology

Laboratory and lecture course studying the structure of the cell, various tissues and organ systems. Emphasis is on functional morphology and the adaptive response (including the inflammatory reaction) by comparing histological sections of normal tissues and organs with common diseases including neoplasia, respiratory, and liver disease.
Prerequisite: BIO250YI
HMB303H Global Health and Human Rights 39S
A multidisciplinary emphasis on the economic, historical, social and cultural determinants of health and human rights, and how structural violence prevents progress towards human rights. Case studies reflecting global aspects of health and human rights will form a framework for approaching these issues.
This is a SCIENCE or SOCIAL SCIENCE course.

## HMB304HI Introduction to I3L, 26T <br> Biocommunication Visualization

This course covers the analysis and development of visual media for medical or scientific publication. Lectures include: light/form; proportion/scale; scientific visual conventions; media appropriate for target audience and reproduction. Topics may include:
physiology, anatomical/biological subjects, patient education/health
promotion or archaeological artifacts. Classes consist of lectures with computer lab explorations.
Exclusion: HSC302H5
Prerequisite: BIO250YI

## HMB305HI Personalized Modern Science 26L

Learn about the people behind the last century of scientific discovery. Select scientists, chosen in part for the impact of their discovery on human biology, will be used to illustrate the process of scientific research. Source material will range from interviews available from Nature and Science to written biographies. Prerequisite: BIO250YI; BCH2IOHI; HMB265HI

## HMB3IOHI Laboratory in Neuroscience 26L, 39P (formerly NRS302HI)

A laboratory course based on current research techniques for students in the Specialist program in Neuroscience and Human Behavioural Biology. Lab topics include brain anatomy and imaging, immunocytochemistry, startle reflex analysis, human neuropsychology, and animal behaviour.
Exclusion: PSY399HI, NRS302HI, HMB3 I4H
Co-requisite: HMB300HI
HMB3IIHI Laboratory in Genes, Genetics, 26L, 39P and Biotechnology
A laboratory course based on current research techniques for students in the Specialist program in Genes, Genetics, and Biotechnology. Lab topics include basic microbiology techniques, Southern blot, immunocytochemistry, nutrigenomics, and principles of fermentation.
Exclusion: HMB314H
Co-requisite: HMB 30 IHI
HMB3I2HI Laboratory in Health and 26L, 39P Disease
A laboratory course based on current research techniques for students in the Specialist program in Health and Disease. Lab topics include basic microbiology techniques, Southern blot, immunocytochemistry, nutrigenomics, and histological techniques. Exclusion: HMB314H
Prerequisite: HMB202HI, HMB302HI

HMB3I4HI Laboratory in Human Biology 13L, 39P
A laboratory course based on current research techniques for students in the Human Biology Major program. Laboratory topics include basic physiological techniques (blood/urine analysis, glucose tolerance), genetic analysis and investigation of biological processes using current molecular biology techniques. Students are engaged in supervised research projects on their research interests. Exclusion: $\mathrm{HMB} 3 \mathrm{IOHI} / 3 \mathrm{IIHI} / 3 \mathrm{I} 2 \mathrm{HI}$
Prerequisite: $\mathrm{BIO} 250 \mathrm{YI} / \mathrm{BIO} 255 \mathrm{YI}, \mathrm{HMB} 265 \mathrm{HI} / \mathrm{BIO} 260 \mathrm{HI}$
HMB320HI Neuroanatomy 26L, 26P (formerly NRS202HI)
This is a rigorous, introductory course that presents the functional and comparative anatomy of the vertebrate brain. It is designed for students who intend to continue with studies in the Neurosciences and related areas.
Exclusion: NRS202HI
Prerequisite: HMB206HI
HMB32IHI Topics in Genetics 26L, I3T Lectures and tutorial discussions on three or four selected topics in Genetics. Emphasis is on building in-depth understanding of classical and current problems from their historical roots to recent molecular genetic results. Topics vary yearly. Consult web page for more information: http://hmb.utoronto.ca/hmb32Ih.
Prerequisite: $\mathrm{BIO} 260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}$
HMB322HI Human Diseases in Our Society 26L, I3T
Explore the scientific basis, interdisciplinary healthcare practices, and social implications of several diseases common in our society (e.g., STD, skin cancer, diabetes, and peridontal disease). Discuss current issues. Shadow a healthcare professional.
Prerequisite: $\mathrm{BIO} 250 \mathrm{YI}, \mathrm{HMB} 200 \mathrm{HI} / 20 \mathrm{IHI} / 202 \mathrm{HI} / 203 \mathrm{HI}$

## HMB397HI Scientific Communication 2L, 24S

Delve into topic(s) of human biology of your choice! Read science as it's published. Listen to scientific talks. Be mentored by your own individual professor, a basic or clinical researcher. Assignments guide you to read, write, and speak effectively about science. Prerequisite: BIO250YI, HMB200HI/20IHI/202HI/203HI

| HMB400YI | Project in Neuroscience <br> (formerly NRS400YI) | TBA |
| :--- | :--- | :--- |

Laboratory research project on a neuroscience topic; supervised by a member of the Faculty of Arts and Science or the Faculty of Medicine. Requires approval from the Human Biology Programs office from which application forms may be obtained. Exclusion: NRS400YI
Prerequisite:An approved 300+ series science laboratory course and permission of the Human Biology Programs office.

## HMB420HI Seminar in Human Behavioural Biology

26S
Interdisciplinary seminar course that integrates the study
of biological sciences with a psychological, sociological,
anthropological, and philosophical perspective.
Prerequisite: HMB300HI
HMB42IHI Seminar in Genes, Genetics,

## and Biotechnology

Theme based lecture and seminar course underlining current medical research in relation to the areas of genes, genetics and biotechnology. Topics vary yearly.
Prerequisite: HMB30IHI
HMB422HI Seminar in Health and Disease 26S
Lecture and seminar course underlining current medical research related to human disease. Topics vary yearly.
Prerequisite: HMB202HI, 302HI

## Life Sciences: Human Biology

## HMB432HI Topics in Histology and Histopathology

Lecture and seminar course emphasizing current research Topics may include the digestive system, cardiovascular system, respiratory system, and neoplasia. Topics will vary depending on class interest.
Prerequisite: HMB302HI
HMB433HI Topics in Global Health
Seminar and theme based course based on topics in health and human rights in a global setting (first offered 2008-2009).
Prerequisite: HMB303HI

## HMB434HI Complementary and <br> Alternative Medicine

Integrative health care is a phenomenon that is developing in health care systems in North America, China, India, and Vietnam, among others. It involves the coordination of multi-disciplinary and culturally-specific health services in the treatment of illness and disease, and an expanded concept of health, illness, and wellness.
Prerequisite: $\mathrm{HMB} 302 \mathrm{HI} / 303 \mathrm{HI}$ or permission from the Human Biology Programs office.

## HMB435HI Selected Topics in Molecular Cell Biology

Theme based lecture and seminar course underlining current basic science research in the area of molecular biology and cell biology as related to human disease. Topics vary yearly depending on student interest.
Prerequisite: BIO349HI/PSL350HI

## HMB443HI Global Hidden Hunger <br> 20L, 6S

Vitamin and mineral deficiencies, termed 'hidden hunger', affect about half the world's population. We explore the global nature, catastrophic consequences, and causes of these deficiencies. We also discuss formulation and implementation of international, national, and local policies to alleviate 'hidden hunger' especially in infants and young children.
Prerequisite: HMB303HI or NFS382HI

## HMB444HI Human Biology and Human Destiny: Science, Popular Science, and Science Fiction

 26SSeminars explore the interactions of biological sciences, social issues, and literature. Through reading of classic "SF" novels and popular writings by prominent twentieth century biologists in their historical, scientific, and thematic contexts, we will examine how biological concepts and their development affected life, society, and the future of humanity.
Prerequisite: $\mathrm{HMB} 300 \mathrm{HI} / 30 \mathrm{IHI} / 302 \mathrm{HI} / 303 \mathrm{HI} / 305 \mathrm{HI}$

## HAJ453HI AIDS:A Global Perspective 26S

Seminars explore the global AIDS crisis, adopting the medicalanthropological perspective of Paul Farmer's "Infections and Inequalities". Varying epidemiological profiles of AIDS are placed in broader social, cultural, and political-economic frameworks. The impact of globalization and structural inequality on local cultures and lifestyles will provide an essential backdrop to the discussions. Prerequisite: $\mathrm{HMB} 300 \mathrm{HI} / 30 \mathrm{IHI} / 302 \mathrm{HI} / 303 \mathrm{HI}$ or 0.5 FCE 300 series ANT course
This is a SCIENCE or SOCIAL SCIENCE course.

## HMB470HI Exercise and Sports Medicine 26S

This course introduces biomechanics and builds on knowledge of the biomechanics of injury and dysfunction to develop a systematic understanding of risk, injury prevention, and initial management of injuries in sports and physical activities. Some additional topics
include "doping" in sport, travel issues in competitive sport, and ethical issues in clinical sport medicine.
Prerequisite: $\mathrm{HMB} 300 \mathrm{HI} / 30 \mathrm{IHI} / 302 \mathrm{HI} / 303 \mathrm{HI}$

## HMB47IHI Performance Enhancement

This course presents the links between stress and performance. Current research will provide the theoretical and scientific bases for this mind-body link. Various stress management skills will be introduced to maintain focus in the face of distractions such as writing an examination, making a public presentation or being interviewed for a job
Prerequisite: $\mathrm{HMB} 300 \mathrm{HI} / 30 \mathrm{IHI} / 302 \mathrm{HI} / 303 \mathrm{HI}$

## HMB498Y Research Project in Health TBA and Human Rights

A research project on issues surrounding global health and human rights to be supervised by a member of the Faculty of Arts and Science or the Faculty of Medicine. Requires approval from the Human Biology Programs office from which application forms may be obtained.
Prerequisite: HMB203HI, HMB303HI and permission of the Human Biology Programs office.
This is a SCIENCE or SOCIAL SCIENCE course

## HMB499YI Research Project in TBA

 Human BiologyA research project supervised by a member of the Faculty of Arts and Science or the Faculty of Medicine. Requires approval from the Human Biology Programs office from which application forms may be obtained
Prerequisite:An approved 300+ series science laboratory course and permission of the Human Biology Programs office.

## Collaborative Program of the Faculty of Arts \& Science and the Faculty of Medicine

## Faculty

## Professors Emeriti

J.B. Hay, M Sc, Ph D R.H. Painter, B Sc, Ph D

Professor and Chair of the Department
M.J.H. Ratcliffe, B Sc, Ph D

University Professor
T.W. Mak, Ph D, D Sc, FRSC

Professors
B.H. Barber, M Sc, Ph D (Adjunct)
N. Berinstein, MD
J. Danska, AB, Ph D
H.M. Dosch, MD
E. Fish, M Sc Ph D
R.M. Gorczynski, Ph D, MD
C. Guidos, B Sc, Ph D
N. Hozumi, Ph D, MD (Adjunct)
R.D. Inman, BA, MD
N.N. Iscove, Ph D, MD
D.E. Isenman, B Sc, Ph D
M.H. Julius, B Sc, Ph D
E.C. Keystone, B Sc, Ph D
M.V. Letarte, B Sc, Ph D
G. Levy, B Sc, MD, FRCP
R.G. Miller, M Sc, Ph D
P.S. Ohashi, B Sc, Ph D
C.A. Ottaway, Ph D, MD, LMCC, FRCP
C. Paige, B Sc, Ph D
J. Penninger, MD (Adjunct)
J.C. Roder, BA, Ph D
C. Roifman, MD
M.J. Shulman, BA, Ph D
E. Silverman, MD
K. Siminovitch, MD, FRCP, ABIM
T.H.Watts, B Sc, Ph D
D.Williams, M Sc, Ph D
G.E. Wu, M Sc, Ph D (Adjunct)
L. Zhang, MD, Ph D
J.C. Zúñiga-Pflücker, B Sc, Ph D

## Associate Professors

S. Berger, M Sc, Ph D
A. Cohen, M Sc, Ph D
R. Hakem, M Sc, Ph D
J. Jongstra, M Sc, Ph D
D.J. Kelvin, M Sc, Ph D
S. Lewis, BS, Ph D
K. MacDonald, MD
P. Poussier, MD
R. Rottapel, MD
L. Rubin, MD, LMCC, FRCP (C)
A. Schuh, MD
F. Tsui, M Sc, Ph D
P.Vadas, B Sc, Ph D, MD
J. Wither, B Sc, MD, Ph D

## Assistant Professors

M.K. Anderson, B Sc, Ph D
J.W.D. Booth, B Sc, Ph D
J.R. Carlyle, B Sc, Ph D
P.J. Doherty, B Sc, Ph D
J.L. Gommerman, B Sc, Ph D
J. Jongstra-Bilen, M Sc, DEA, Ph D
C. Laskin, B Sc, MD
C. Lau, M Sc, Ph D (Adjunct)
A. Martin, M Sc, Ph D
M. Ostrowski, MD, FRCP
D.J. Philpott, B Sc, Ph D
R.S. Yeung, B Sc MD, Ph D, FRCP (C)

## Lecturer

L. Clemenza, B Sc, Ph D
H.Tsui, B Sc, Ph D

Immunology is an integrative branch of the medical sciences that draws upon the more traditional disciplines of Molecular Biology, Microbiology, Pathology, and Biochemistry. In essence, Immunology is the study of the physiological responses that result when foreign (i.e. non-self) materials are introduced into a vertebrate organism such as man. Traditionally, the discipline has focussed on the body's response to infectious microorganisms, with the purpose of developing effective vaccines. However, the scope of modern Immunology now encompasses all aspects of self vs. non-self recognition phenomena including organ transplantation, tumour immunology and autoimmune diseases. Recent major advances in our understanding of the cellular and molecular basis of the immune response promise to provide us with a new generation of prophylactic, therapeutic and diagnostic reagents of relevance to human and animal health.

The Department of Immunology in collaboration with Trinity College co-ordinates a specialist program in Immunology. The emphasis of this program is to provide students with a sound theoretical understanding of the cellular and molecular basis of non-self recognition, together with sufficient laboratory experience to enable the students to consider embarking on a career in the discipline. Immunologists may have careers in universities and other centres of learning and research, as well as in the biotechnology industries, diagnostic laboratories and various government agencies.

Courses in this specialist program are drawn from offerings by the Department, together with courses from other Departments, taught in some cases by members of the Department of Immunology. As enrolment in the specialist program is restricted, please consult specific requirements outlined in the program description section.

## Life Sciences: Immunology

Undergraduate Coordinator: Dr.A. Martin

Enquiries:
Department of Immunology, Room 527 I, Medical Sciences Building (4I6-978-8360)

More information is available on our website: www.immunology.utoronto.ca

## Immunology Programs

## Immunology (Science program)

Sponsored by the Department of Immunology, Faculty of Medicine, and Trinity College

The Immunology Specialist Program is a Type 3 program. Enrolment is limited and selection is based on performance in First year required courses, only students with a CGPA of equal to or over 3.5 will be considered for acceptance into the program. Students apply via the Faculty's Subject POSt web site.

## Specialist program

(14 full courses or their equivalent, including at least three 400series courses)
First Year:
BIO I50YI; CHM I38HI, I39HI; MAT I35YI/I37YI; PHY IIOYI/I38YI/I40YI (PHY I38YI recommended)
Second Year:
BCH 242YI; BIO 250YI, BIO260HI/HMB265HI; CHM 220HI, 247HI
Third Year:
BCH 37 IHI ; IMM 335YI; MGY 3IIYI, $377 \mathrm{HI}, 378 \mathrm{HI}$
Fourth Year:
I. IMM $429 \mathrm{HI}, 430 \mathrm{HI}, 435 \mathrm{HI}$; JBI 428 HI
2. IMM 450 YI or one full course equivalent at the 400 -series level in ANA, BCH, IMM, LMP, MGY, or ZOO

## Immunology Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes, all IMM courses are classified as SCIENCE courses (see page 27).

## IMM299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.
IMM334YI Introductory Immunology 52L
The basic principles of immunology; tissues and cells of the immune system; cell biology of the humoral and cellmediated immune responses; immunogenetics; immunoglobulin structure, function and biosynthesis; immunological techniques; immunopathology; infection and immunity; transplantation, autoimmunity and tumour immunology.

## Prerequisite: BIO250YI

IMM335YI Introductory Immunology 52L, 26T
The fundamental principles of immunology; tissues and cells of the immune system; humoral and cell-mediated immune responses; immunogenetics; immunoglobulin structure, function and biosynthesis; immunopathology; infection and immunity; transplantation, autoimmunity and tumour immunology. Intended for students specializing in immunology and related
programs, and requiring a more intensive background in biochemistry and molecular biology than IMM334YI.
Prerequisite: BCH 242 YI ; BIO $250 \mathrm{YI}, 260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}$
Co-requisite: MGY3IIYI
JBI428HI Molecular Immunology 26L
Molecular mechanisms involved in innate and adaptive immunity including the structure and function of immunoglobulins, the complement system, antigen processing and presentation, and membrane signalling events. Emphasis is on experimental approaches and quantitative aspects. (Given by the Departments of Biochemistry and Immunology)
Prerequisite: BCH2IOHI/242YI, IMM334YI/335YI
Recommended preparation: BIO349HI/MGY3IIYI/PSL350HI
IMM429HI Developmental Immunology 26L
Hematopoiesis, myelopoiesis, lymphopoiesis, a study of the development of cells involved in the immune system including their ontogeny, physical, molecular, and biochemical characteristics, regulation of differentiation and maturation, positive and negative selection of lymphocytes, DNA rearrangement.
Prerequisite: IMM334YI/335Y|

## IMM430HI The Immune Response

A study of the cells involved in the immune response, the nature of cellular and molecular interactions that govern immunity and self-tolerance, the nature of the effector cells in immunity and genetic control of immune responses. Prerequisite: IMM334YI/335YI

## IMM435HI Practical Immunology 72P

Application of basic principles acquired from IMM334YI/335YI; immunological procedures used in research and diagnostic laboratories; rudiments of etiology, pathogenesis, and laboratory diagnosis of diseases of immune system; principles of immunological diagnostic procedures in some infectious diseases; instruction through lectures, practical exercises, video tapes, student presentations.
Prerequisite: BCH2IOHI/242YI, IMM334YI/335Y।

## IMM450YI Research Project in Immunology I54P

An opportunity for specialized research in Immunology under the supervision of a member of the Faculty. There are no preor co-requisites, although preference is given to Immunology Specialist students.
MIJ485HI Vaccines and Immunity 39L
Analysis of infectious disease vaccines, and pathogens' strategies to evade specific immune response, with an emphasis on molecular and immunological aspects. Special topics include: molecular basis of pathogenicity and immune-evasion strategies; vaccination strategies; adverse effects of vaccines (given jointly by the Departments of Medical Genetics \& Microbiology and Immunology).
Prerequisite: IMM334YI/IMM335YI, MGY377HI, MGY378HI Exclusion: MBY480HI, MGY485HI

## Life Sciences: Laboratory Medicine and Pathobiology

| Given by Members of the Faculty of Medicine |
| :---: |
| Faculty |
| Professor and Chair of the Department <br> A.I. Gotlieb, MD, CM |
| Professors |
| K. Adeli, Ph D |
| S.L. Asa, MD, Ph D |
| C. Bergeron MD |
| J.M. Boggs, Ph D |
| J. Brunton, MD |
| J. Butany, Ph D |
| D.E.C. Cole, MD, Ph D |
| E. Cutz, MD |
| M. Cybulsky, MD |
| E.P. Diamandis, MD, Ph D |
| M.D. Grynpas, Ph D |
| J.B. Hay, Ph D |
| A. Hinek, Ph D |
| D.M. Irwin, Ph D |
| M.G. Johnston, Ph D |
| S. Jothy, MD, Ph D |
| S. Kamel-Reid, Ph D |
| R. Kandel, MD |
| F.W. Keeley, Ph D |
| B.L. Langille, Ph D |
| G.A. Levy, MD |
| C.A. Lingwood, Ph D |
| D. Low, MD |
| D. Mahuran, Ph D |
| P.A. Marsden, MD |
| T. Mazzuli, MD |
| A. McGeer, MD |
| S. Nag, MD |
| M. Opas, Ph D |
| K.P.H. Pritzker, MD |
| J. Prud'homme, MD |
| D.S.R. Sarma, Ph D |
| A. Seth, Ph D |
| P. Shek, Ph D |
| A.E.M. Simor, MD |
| J. Squire, Ph D |
| D.M. Templeton, Ph D, MD |
| P.Thorner, MD, Ph D |
| M.S.Tsao, MD |
| G.A.Wilson, MD |
| L. Zhang, Ph D |
| Associate Professors |
| B. Bapat, Ph D |
| M. Bendeck, Ph D |
| J.C.S. de Azavedo, Ph D |
| G. Denomme, Ph D |
| H.P. Elsholtz, Ph D |
| P. Hamel, Ph D |

G. Hannigan, PhD
M. McGavin, Ph D
J. McLaurin, PhD
J.O. Minta, Ph D
M. Ohh, Ph D
S. Richardson, MD
M. Rozakis, Ph D
B. Strauss, MD, Ph D
R.Vieth, Ph D
B. Yang, Ph D
H. Yeger, Ph D
M. Zielenska, Ph D

Assistant Professors
I. Aubert, Ph D
S. Girardin, Ph D
D. Hwang, Ph D, MD
C. McKerlie, DVM, DV Sc
J. Mogridge, Ph D
R. Tellier, Ph D
W.Vogel, Ph D

The Department of Laboratory Medicine and Pathobiology provides a bridge between the basic sciences and medicine. Investigating the molecular mechanisms of disease is an important priority of the department. Faculty are concerned with the biochemical changes that may be associated with cell and tissue injury and with the etiology, pathogenesis and behaviour of disease. Research is carried out in such areas as cardiovascular disease, immunopathobiology, neuropathology, endocrinology and metabolism, neoplasia, bone and connective tissue disease, clinical and molecular epidemiology, antiobiotic resistance, and molecular pathogenesis of infectious disease.

The Pathobiology Specialist program gives students a broad understanding of contemporary medical research and basic scientific insights that have revolutionized our understanding of disease in recent years. Aspects of biochemistry, chemistry, cellular and molecular biology, and genetics are brought to bear upon human pathology. Graduates from the program will frequently pursue graduate studies in medical research and eventual research careers in academic, industrial, pharmaceutical, or governmental laboratories. A knowledge of cellular and molecular mechanisms of disease processes is also useful in a wide variety of multidisciplinary careers in government, regulatory agencies, law, and environment.

Undergraduate Secretary:
Dr. D.M.Templeton, Medical Sciences Building, Rm. 6209 (416-946-7459)

Web site:
www.Imp.facmed.utoronto.ca

## Course Coordinators:

LMP300YI: Dr. D.M.Templeton (4I6-978-3972)
LMP30IHI: Dr.L. Fu (4I6-480-4299)
Dr. P.Yip (416-340-4800)
LMP363HI: Dr. D.S.R. Sarma (4I6-978-50I0)
LMP365HI: Dr. M. Ohh (4I6-946-7922)
LMP402HI: Dr. M. McGavin (416-480-583I)
LMP403HI: Dr.L Zhang (416-340-4915)/
Dr. P. Shek (4I6-635-2I27)
LMP404HI: Dr.W.Vogel (4I6-946-8I32)

# Life Sciences: Laboratory Medicine and Pathobiology 

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LMP405YI: Dr. H. Yeger (4I6-8I3-5958)
Dr. G. Hannigan (4I6-813-8I49)
LMP406HI: Dr. M. Bendeck (416-864-5652)
LMP4IOHI: Dr. J. McLaurin (416-978-I035)
LMP436HI: Dr. S. Girardin (416-978-7507)
```


## Pathobiology Programs

## Pathobiology (Science program)

Enrolment in this program is limited and selection is based on performance in First Year required courses. Students enrol at the end of their first year of studies. Apply via the Arts \& Science web site from early April to mid-May. At later times, contact the undergraduate secretary.

## Specialist program:

(I3.5 full courses or their equivalent, including at least two 400series courses)
First Year:
BIO I50YI; CHM (I38HI, I39HI)/I5IYI; MAT I35YI/I37YI; PHY I38YI/I40YI
Second Year:
BCH 2IOHI; BIO $250 \mathrm{YI}, 260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}$; CHM 220HI, 247HI; PSL 302YI
Third Year:
BCH 370HI; IMM 334YI/MGY (377HI, 378 HI ); BIO 349 HI ; LMP 300 Y , 365 HI
Fourth Year:
At least 4 of LMP $402 \mathrm{HI}, 403 \mathrm{HI}, 404 \mathrm{HI}, 405 \mathrm{YI}, 406 \mathrm{HI}, 4 \mathrm{IOHI}$, $4 \mathrm{I} 2 \mathrm{HI}, 436 \mathrm{HI}$

## Laboratory Medicine and Pathobiology Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes, all LMP courses are classified as SCIENCE courses (see page 27).

## LMP299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.
LMP300YI Introduction to Pathobiology 52L, 6P
Concepts in pathogenesis; cell injury and death; tissue structure, wound healing; repair and fibrosis. Molecular basis of major organ system pathology. The laboratory examines gross anatomical specimens and introduces histopathology. Enrolment is limited to students specializing in pathobiology who have completed the first and second year requirements of the program.
Exclusion: LMP30IHI

## LMP30IHI Introduction to the Biochemistry of Human Disease

Introduces concepts and mechanisms of disease processes as they arise from disturbances of normal biochemical and physiological functions. The rational use of the clinical biochemistry laboratory in the diagnosis and management of disease is explained. Not intended for students in the
Pathobiology Specialist program.
Exclusion: LMP300YI
Prerequisite: $\mathrm{BCH} 2 \mathrm{IOHI} / 242 \mathrm{YI}$
Co-requisite: PSL302YI/JBO302YI

## LMP363HI Principles of Pathobiology <br> 26L

Pathological changes brought on by foreign compounds; applications of pathology to the detection of toxic carcinogenic actions.
Prerequisite: BIO250YI, CHM247HI
LMP365HI Neoplasia 20L, 6P
A general introduction to the cellular and molecular aspects of cancer and its etiology. The laboratory component presents the range of benign and malignant tumor types at the gross and histological levels. Pathophysiology of cancer, invasion and metastases, role of the immune system.
Co-requisite: LMP300YI or permission of department

## LMP402HI Inflammation and Infection

Cellular and molecular components of the inflammatory response. Activation of the inflammatory response by viral and microbial pathogens. Tissue pathology resulting from the inflammatory response. Evolution of pathogens to avoid and exploit the response.
Prerequisite: IMM334YI/335YI/MGY(377HI, 378HI)

## LMP403HI Immunopathology

26L
The immune system in disease. Responses of the immune system to host invasion, injurious stimuli, and transplantation. Immunopathology of organ-specific diseases including pancreas, gut, liver, heart, kidney, and blood. Intended for students specializing in pathobiology or related programs. Prerequisite: IMM334YI/335YI

## LMP404HI Bone and Skeletal Disorders

Molecular and cellular architecture of connective tissue in health and in diseases, such as osteoporosis and arthritis. Cellular and endocrine signals necessary for formation and maintenance of the skeleton. Biomechanics and tissue engineering of bone and cartilage. Selected other connective tissue diseases, their genetic variability, and up-to-date treatment strategies.

## LMP405YI Project in Laboratory Medicine I56P and Pathobiology

A self-contained research project to be completed under the supervision of a faculty member. The main areas of research are as listed in the description of the Department (above). The student will normally have completed three full years of study, and is expected to devote at least one full day per week to the project. Admission is by arrangement with the Department and with a particular supervisor. A list of potential supervisors is available from the Departmental Office and on our web site. Prerequisite: $\mathrm{BCH} 2 \mathrm{IOHI}, \mathrm{LMP} 300 \mathrm{Y} / / 363 \mathrm{HI} / 365 \mathrm{HI}$ and permission of department

LMP406HI | Pathobiology of the |
| :--- |
| Cardiovascular System |

Pathobiology of the heart, blood vessels, and lymphatic system.
Congenital diseases of the heart, ischemic injury, stroke.
Treatments of vascular disease and cardiovascular biomaterials.
Major focus on atherosclerosis and hypertension. The emphasis
is on the underlying cell biology of these processes.
Prerequisite: PSL302YI

| LMP4IOHI | Pathobiology of <br>  <br> Neurodegenerative Disease |
| :--- | :--- |

Molecular basis of neurodegenerative diseases of the central and peripheral nervous systems. Relevant neuroanatomy and molecular biology of the CNS. Current research topics in neurodegenerative diseases.
Prerequisite: BIO250YI/PSL302YI

## Life Sciences: Laboratory Medicine and Pathobiology

## LMP4I2HI Pathobiology of the Lymphatic 26L

## System

The lymphatic circulation plays an important role in the maintenance of tissue fluid balance, cancer metastases, and delivery of antigens to lymph nodes where immune responses are generated. This course examines the role of lymphatic vessel in disease and potential new molecular therapies to treat lymphatic pathology.
Prerequisite: PSL302YI

## LMP436HI Microbial Pathogenesis 39L

Molecular mechanism involved in pathogenesis of infectious disease. Topics include recurrent themes in the establishment of infectious disease, such as adherence and spread of pathogenic bacteria as well as evasion of host defences. Emphasis is placed on genetic characterization and expression of virulence determinants and on interactions between bacterial pathogens and their hosts.
Prerequisite: BCH2IOHI, IMM334YI/MGY377HI

## Collaborative Program of the Faculty of Arts \& Science and the Faculty of Medicine

## Faculty

## Professor and Chair of the Department of Medical Genetics \& Microbiology

H. D. Lipshitz, Ph D

## Professors

B. J.Andrews, Ph D
I. Andrulis, Ph D
B.J. Blencowe, Ph D
C. Boone, Ph D
G. L. Boulianne, Ph D
R.A. Collins, Ph D
A. Edwards, Ph D
L. D. Frappier, Ph D
B. E. Funnell, Ph D
J.F. Greenblatt, Ph D
C.C. Hui, Ph D
T. Hughes, Ph D
C.J. Ingles, Ph D
H. M. Krause, Ph D
A. Nagy, Ph D
P.N. Ray, Ph D
J. M. Rommens, Ph D
J.M. Segall, Ph D
M. D. Tyers, Ph D
J.Wrana, Ph D

## Associate Professors

A.L. Bognar, Ph D
M. Brown, M Sc, Ph D
A.W. Cochrane, Ph D
S. P. Cordes, Ph D
A. R. Davidson, Ph D
S. Egan, Ph D
J. Ellis, Ph D
A. Emili, Ph D
S. D. Gray-Owen, Ph D
C.E. Pearson, Ph D
S. M. Lewis, Ph D
J. Liu, Ph D
S. Joshi-Sukhwal, D Sc, Ph D
F. Sicheri, Ph D
A. M. Spence, Ph D

## Assistant Professors

J. Brill, Ph D
J. Brumell, Ph D
D. Durocher, Ph D
B. D. Lavoie, Ph D
P. J. Roy, Ph D
C.S. Tailor, Ph D
E. R. M. Tillier, Ph D
A.Wilde, Ph D

Molecular biology has revolutionized the fields of genetics and microbiology. The Department of Medical Genetics and Microbiology offers a combined Specialist program in Molecular Genetics and Microbiology, which emphasizes the molecular aspects of both disciplines. Genetics, the science of heredity, and microbiology, the study of microorganisms (microbes), have long served as meeting grounds for a variety of biological disciplines. Developments in genetics and microbiology have contributed greatly to our basic understanding of the fundamental processes of life as well as to the treatment of genetic and infectious diseases.

Of particular significance in molecular genetics has been the development of techniques that permit the isolation, through cloning, of the genes responsible for specific traits, and the detailed analysis of their regulation, interactions, and products. Molecular techniques have increased our ability to diagnose and understand viral and bacterial disease, and the complex microbe/host interactions that are involved. The impact of these and other technological advances extend to such diverse fields as plant and animal developmental biology, virology, immunology, cancer biology, and biotechnology. Studies at a molecular level are essential to understanding the consequences to life when fundamental processes are altered by mutation, by infection, or by the environment.

The Molecular Genetics and Microbiology program is a research-intensive program and is designed to provide a strong background in science that is applicable to a variety of careers. Career opportunities for graduates include employment in research institutes, universities and other educational institutions, and industry. The program provides an excellent preparation for post-graduate research and professional programs.

The Molecular Genetics and Microbiology program consists of two streams, called Genetics and Microbiology. Students enter the program at the start of their second year, and choose a stream by the start of the third year. Each stream provides focused training, but there is considerable overlap between the programs, reflective of both the cross-disciplinary requirements of these two rapidly evolving disciplines and the impact of each on areas spanning modern biomedical science.

Undergraduate Coordinator: Dr. B. Funnell, Medical Sciences Building (4I6-978-I665; email: mgy.info@utoronto.ca)

Undergraduate Office/General Inquiries: Medical Sciences Building Rm 4396 (416-978-8359; email: undergrad.medgen@ utoronto.ca)

More information is available on our website: http://www. utoronto.ca/medicalgenetics/

## Molecular Genetics and Microbiology Program

## Molecular Genetics and Microbiology (Science program)

Enrolment in this program is limited and selection is based on performance in First year required courses. Apply at the end of the First year via the Faculty's Subject POSt web site. At later times, contact the Undergraduate Coordinator.

## Specialist program:

(14 full courses or their equivalent)
First Year:
BIOI50YI; (CHMI38HI, CHMI39HI)/CHMI5IYI; MATI35YI/
MATI37YI; PHYIIOYI/PHYI38YI/PHYI40YI (PHYI38YI recommended)
Second Year:
BCH242YI; BIO250YI, BIO260HI; CHM220HI, CHM247HI
Third Year:
Genetics Stream:
I. BCH340HI, BCH37IHI; MGY3IIYI, MGY3I2HI
2. At least 0.5 full-course equivalents must be taken from BCH335HI, CHM347HI, MGY377HI, MGY378HI
Microbiology Stream
I. IMM335YI; MGY3IIYI, MGY376HI, MGY377HI, MGY378HI
Fourth Year:
Genetics Stream:
I. MGY420HI, MGY432HI
plus 2.5 credits from Genetics Lists I and 2, distributed as follows:
2. At least 1.5 full-course equivalents must be taken from list I:
CSB460HI, MGY425HI, MGY428HI, MGY45IHI, MGY452HI, MGY470HI
3. Up to 1.0 full-course equivalent may be taken from list 2: $\mathrm{BCH} 422 \mathrm{HI}, 440 \mathrm{HI}, 44 \mathrm{IHI} ; \mathrm{CSB} 328 \mathrm{HI}, 46 \mathrm{IHI}, 472 \mathrm{HI}$; HPS333HI; MGY434HI, 440HI, 445HI, 480YI
Microbiology Stream:
I. MGY432HI
plus 2.5 credits from Microbiology Lists I and 2, distributed as follows:
2. At least I. 5 full-course equivalents must be taken from list I:
LMP402HI, $436 \mathrm{HI} ; \mathrm{MGY} 420 \mathrm{HI}, 428 \mathrm{HI}, 434 \mathrm{HI}, 440 \mathrm{HI}$, $445 \mathrm{HI} ; \mathrm{MIJ} 485 \mathrm{HI}$
3. Up to 1.0 full-course equivalent may be taken from list 2 : $\mathrm{BCH} 304 \mathrm{HI}, 335 \mathrm{HI}, 340 \mathrm{HI}, 422 \mathrm{HI}, 426 \mathrm{HI}, 435 \mathrm{HI}, 44 \mathrm{IHI}$; CSB357HI, $452 \mathrm{HI}, 460 \mathrm{HI}, 457 \mathrm{HI} ; \mathrm{IMM} 430 \mathrm{HI} ;$ JBI 428 HI ; LMP403HI; MGY425HI, $45 \mathrm{IHI}, 452 \mathrm{HI}, 470 \mathrm{HI}, 480 \mathrm{YI}$
Molecular Genetics and Microbiology Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes, all MGY courses are classified as SCIENCE courses (see page 27).

MGY299YI Research Opportunity Program
Credit course for supervised participation in faculty research project. See page 47 for details.

## MGY3IIYI Molecular Biology <br> 78L

DNA replication, DNA repair and mutation, recombination, transcription, RNA modification and processing, the genetic code and tRNA, translation, regulation of gene expression, development and differentiation, molecular evolution.
Exclusion: CSB349HI, JBC372H5(UTM), MGB3IIYI, PSL350HI Prerequisite: BIO250YI, BCH242YI

MGY3I2HI Principles of Genetic Analysis 78P
Laboratory experiments in genetics of selected organisms.
Topics studied include Mendelian genetics, linkage and recombination, complementation, analysis of chromosome rearrangements, mutant selection and analysis in plants and bacteria, and genetic crosses with plants, bacteria and bacteriophages.
Exclusion: MGB3I2HI
Prerequisite: BIO250YI, BIO260HI
Co-requisite: MGY3IIYI
MGY376HI Microbiology Laboratory 78P
Fundamental laboratory techniques in bacteriology and virology.
Valuable not only for students specializing in Microbiology but
also for those in related disciplines which make use of bacteria
and viruses as research tools. Open to students in related programs.
Exclusion: MBY376HI
Prerequisite: BIO250YI, BIO $260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}$
Co-requisite: MGY377HI, MGY378HI
MGY377HI Microbiology I: Bacteria 39L
Detailed study of bacteria in terms of structure, classification and replication. Basis for advanced study in various aspects of bacteriology including bacterial physiology, bacterial genetics, molecular pathogenesis of disease and environmental studies.
Exclusion: BIO370Y5 (UTM), MBY375YI, MBY377HI
Prerequisite: $\mathrm{BCH} 2 \mathrm{IOHI} / \mathrm{BCH} 242 \mathrm{YI}$; BIO 250 Y I

## MGY378HI Microbiology II:Viruses

39L
Detailed study of viruses in terms of structure, classification, replication and interaction with the host. Basis for advanced study in virology. Requires some familiarity with immunology. A concurrent course in immunology (IMM $334 \mathrm{YI} / 335 \mathrm{YI}$ ) is recommended.
Exclusion: BIO35IYI, CSB35IYI, MBY375YI, MBY378HI
Prerequisite: $\mathrm{BCH} 210 \mathrm{HI} / \mathrm{BCH} 242 \mathrm{YI}$; $\mathrm{BIO} 250 \mathrm{YI} ; \mathrm{BIO} 260 \mathrm{HI} /$
HMB 265HI
Co-requisite: CSB349HI/MGY3IIYI
Recommended preparation: MGY377HI
MGY420HI Regulation of Gene Expression 26L
This course describes regulatory mechanisms controlling gene expression in prokaryotes and eukaryotes. The lectures are designed to promote discussion of various experimental approaches. Topics include: assembly of a transcription complex; initiation of transcription; role of sigma factors and transcription factors; role of regulators of transcription; regulation of SV40 transcription; lambda antitermination; antitermination in HIV-I. Exclusion: BIO477H5 (UTM), MGB420HI
Prerequisite: BCH242YI, BCH340HI, MGY3IIYI
MGY425HI Signal Transduction and Cell 26L Cycle Regulation
This course presents and integrates molecular aspects of signal transduction and cell cycle regulation in eukaryotic cells from yeast to humans. Emphasis is on recent advances in growth factor receptor signalling, modular protein domains, and the

## Life Sciences: Molecular Genetics and Microbiology

recurrent role of protein phosphorylation and protein-protein interactions in cell regulation.
Exclusion: MGB425HI
Prerequisite: BCH242YI, MGY3IIYI

## MGY428HI Functional Genomics <br> 26L

A broad ranging course that covers many aspects of genomics, which is the discipline of defining and attributing function to all of the heritable material of an organism on a genome-wide scale, as applied to microbes, invertebrates and vertebrates. The primary and review literature will be the basis of all lectures.
Exclusion: MBY428HI
Prerequisites: $\mathrm{BCH} 2 \mathrm{IOHI} / \mathrm{BCH} 242 \mathrm{YI}$; BIO260HI/HMB265HI;
MGY3IIYI/CSB349HI
MGY432HI Laboratory in Molecular Genetics 78P and Microbiology
Laboratory experiments demonstrating basic and advanced molecular biological methods applied to molecular genetics and microbiology.
Exclusion: CSB330HI, MGB430HI, MBY450H
Prerequisite: MGY3I2HI/MGY376HI

## MGY434HI Bacterial Signalling and Physiological Regulation

How bacteria sense their environment and signal to regulatory systems when to adapt to environmental stimuli. Topics discussed include the bacterial cell cycle, carbon/energy metabolism, catabolite repression, bacterial development, sporulation, stress responses, regulatory two-component systems and quorum sensing.

## Exclusion: MBY434H

Prerequisite: BCH2IOHI/BCH242YI, MGY377HI, CSB349HI/
MGY3IIYI

## MGY440HI Molecular Virology

Analysis of virus/host interactions at the molecular level.
Course material is based on recent research publications. Exclusion: MBY440HI
Prerequisite: BCH2IOHI/BCH242YI; CSB349HI/ MGY3IIYI; MGY378HI. (Note: BIO35IYI/CSB35IY is not an acceptable equivalent to MGY378HI)
Recommended preparation: IMM334YI/IMM335YI

## MGY445HI Genetic Engineering for 39L

## Prevention and Treatment of Disease

Current approaches to gene therapy including design of virus-based vectors for delivery and expression of effector genes. Emphasis on the use of retrovirus-based strategies for prevention and treatment of HIV infection.
Exclusion: MBY445HI
Prerequisite: MGY378HI/ MGY3IIYI

MGY45IHI | Genetic Analysis of |
| :--- |
| Development: Yeast and Worms |

Basic and advanced principles of genetic analysis applied to
the study of two of the best-understood eukaryotic model
organisms: the yeast Saccharomyces cerevisiae, and the
nematode worm Caenorhabditis elegans. We emphasize the
use of genetic approaches to address problems in cell biology
and development, such as the regulation of cell fate. Much of
the knowledge gained from these simple organisms has proven
broadly applicable, and the same principles of developmental
genetic analysis underlie efforts to understand the development
of more complex organisms.
Exclusion: MGB45IHI
Prerequisite: BIO260HI, MGY3IIYI/CSB349HI

## tic Analysis o

 Basic and advanced principles of genetic analysis applied to the study of two of the best-understood eukaryotic model rganisms: the yeast Saccharomyces cerevisiae, and the nematode worm Caenorhabditis elegans. We emphasize the use of genetic approaches to address problems in cell biology and development, such as the regulation of cell fate. Much of the knowledge gained from these simple organisms has proven broadly applicable, and the same principles of developmental genetic analysis underlie efforts to understand the development Exclusion: MGB45IHPrerequisite: BIO260HI, MGY3IIYI/CSB349HI

## MGY452H Genetic Analysis of 26L

 Development: Flies and MiceThis is a companion course to MGY45IHI.Advanced genetic principles and approaches, used in the study of fly and mouse development, are introduced. Emphasis is placed on developmental processes that are conserved among these major model organisms.
Exclusion: MGB452HI
Prerequisite: BIO260HI, MGY3IIYI/CSB349HI
Recommended preparation: MGY45IHI or equivalent
MGY470HI Human and Molecular Genetics 26L
Current aspects of human and molecular genetics including: chromosome structure and function, inheritance of mutations and disease, the human genome and disease gene mapping, cancer genetics, mouse disease models and gene based diagnostics and therapies.
Exclusion: MGB470HI
Prerequisite: MGY3IIYI
MGY480YI Special Project TBA
An opportunity for specialized individual research in molecular genetics and microbiology by arrangement with the course coordinator.
Exclusion: MGB480YI, MBY422YI
Prerequisite : BCH37IHI/MGY3I2HI/MGY376HI, MGY3IIYI
MIJ485HI Vaccines and Immunity 39L (formerly MGY485HI)
Analysis of infectious disease vaccines, and pathogens' strategies to evade specific immune response, with an emphasis on molecular and immunological aspects. Special topics include: molecular basis of pathogenicity and immune-evasion strategies; vaccination strategies; adverse effects of vaccines (given jointly by the Departments of Medical Genetics \& Microbiology and Immunology).
Exclusion: MBY480HI, MGY485HI
Prerequisite: IMM334YI/IMM335YI, MGY377HI, MGY378HI

Note: MGY460HI (Plant Molecular Genetics) is now given as CSB460HI. Consult the Department of Cell and Systems Biology listing starting on page 259.

The Specialist program in Neuroscience is now administered by the Human Biology Program. See the Life Sciences: Human Biology entry on page 273 for details.

## Collaborative Program of the Faculty of Arts \& Science and the Faculty of Medicine

## Faculty

## Professors Emeriti

G.H. Beaton, Ph D
W.R. Bruce, MD, Ph D
M. Krondl , Ph D
A.V. Rao, M Sc, Ph D
L.U. Thompson, M Sc, Ph D
E.W. McHenry Professor and Chair
M.C.Archer, MA, Ph D, D Sc

## Professors

G.H.Anderson, M Sc, Ph D
C.E. Greenwood, M Sc, Ph D
D.J.A. Jenkins, MA, DM, D Phil, D Sc(Oxon)
V. Tarasuk, Ph D
V.Vuksan, M Sc, D Sc
T.M. S. Wolever, MA, BM, BCH, M Sc, Ph D

## Assistant Professors

R.P. Bazinet, Ph D
A. El-Sohemy, Ph D
A.J. Hanley, Ph D
D. $\mathrm{Ma}, \mathrm{Ph} \mathrm{D}$
W. Ward, M Sc, Ph D

## Lecturer

A. Fox, M.HSc., PhD, RD
S. Parker, Ph D

Nutritional Sciences represents an exciting and challenging area of study of a truly interdisciplinary nature. Understanding of the impact of nutrition on health and its role in disease is based upon a knowledge of the metabolic processes involved (nutrient requirements and utilization, food additive metabolism and safety), of the chemistry of foods (food preservation, food production) and of social and behavioural factors integrated in consideration of the national and international goals of achieving optimal health through proper nutrition.

Most career opportunities in Nutritional Sciences require training beyond the undergraduate level. The Major and Specialist Programs provide excellent preparation for entry into postgraduate studies in nutrition research or for a professional faculty such as Medicine and Dentistry.

Please note that this Department does not offer an undergraduate dietetics program. Students interested in this qualification should contact Dietitians of Canada for information (www.dietitians.ca).

Students interested in applying to the M.H.Sc. Comm. Nutr. Program, through the Graduate Department of Community Health, are advised to contact the program director during their second year of undergraduate studies.

Undergraduate Coordinator:
Professor A. El-Sohemy, FitzGerald Building
Enquiries:
FitzGerald Building, I50 College Street, Room 316 (4I6-9782747)

## Nutritional Sciences Program

Nutritional Sciences (Science program)
** The specialist program will no longer be offered.
Students admitted to the program prior to September
2004 may complete their program as described below**

## Specialist program:

(I2.0 full courses or their equivalent, including at least three 400-series courses)
First Year:
BIO I50YI; CHM (I38HI, I39HI)/I5IYI; MAT I35YI/I37YI;
PHY IIOYI/I38YI/I40YI (PHY I38YI recommended)
Second Year:
BCH 2 IOHI ; BIO 250 YI ; CHM ( $220 \mathrm{HI}, 247 \mathrm{HI} / 249 \mathrm{HI}$ ); NFS
284 HI ; STA ( $220 \mathrm{HI}, 22 \mathrm{IHI} / J \mathrm{BS} 229 \mathrm{HI}$ )
Third Year:
BIO $349 \mathrm{HI} / \mathrm{JLM} 349 \mathrm{HI}$; NFS 382HI; 386HI; PSL 302 YI
Fourth Year:
I. NFS 484 HI
2. Two of NFS $486 \mathrm{HI}, 487 \mathrm{HI}, 488 \mathrm{HI}, 490 \mathrm{HI}, 494 \mathrm{Y}$ I

## Major program:

Enrolment in the Major Program can begin at the end of first year, and admission is based on maintaining an overall GPA of at least 2.7 in the required courses.

First Year:
BIO I50YI; CHM (I38HI, I39HI)/I5IYI
Second Year:
NFS 284HI; BCH2IOHI; STA (220HI, $22 \mathrm{IHI} / \mathrm{JBS} 229 \mathrm{HI})$
Third Year:
NFS 382HI; NFS 386HI; PSL 302YI; BIO 349HI/PSL350HI
Fourth Year:
Any three of: NFS 484HI, NFS 486HI, NFS 487HI, NFS 488HI, NFS 490HI, NFS 494YI

## Nutritional Sciences Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes, all NFS courses are classified as SCIENCE courses (see page 27).

NFS284HI Basic Human Nutrition 39L, I3T
An introductory course to provide the fundamentals of human nutrition to enable students to understand and think critically about the complex interrelationships between food, nutrition, health and the environment.
Recommended preparation: BIOI50YI; CHM (I38HI,I39HI)/ I5IYI; MATI35YI/I37YI; PHYIIOYI/I38YI/I40YI (PHY 138 YI is recommended)

NFS299YI Research Opportunity Program Credit course for supervised participation in faculty research project. See page 47 for details.

## NFS382H I

## Vitamin and Mineral <br> Metabolism Throughout the Life Cycle

Micronutrients are essential for health throughout the life cycle. This course examines the role of micronutrients during development and ageing with some emphasis on disease prevention and pathogenesis. Students develop critical appraisal skills, an understanding of the principles of study design and learn to write in a scientific style.
Prerequisite: BIOI50YI; CHM (I38HI, I39HI)/I5IYI; NFS284HI

## NFS386HI Food Chemistry

Structure, composition and chemical and biochemical reactions in foods during postharvest/postmortem, processing, storage and utilisation. Implications for organoleptic properties, nutritional value, toxicity and human health.
Prerequisite: CHM I38H
Recommended preparation: NFS284HI

## NFS484HI Advanced Nutrition 26L, I4T

Physiological and biochemical features of nutrient needs. The roles of nutrients in the development and adaptability of the whole body, organs and cells. Interpretation of current research data.
Prerequisite: (BCH2IOHI, BIO349HI/PSL350HI, NFS284HI,
PSL302YI, STA ( $220 \mathrm{HI}, 221 \mathrm{HI} / \mathrm{JBS} 229 \mathrm{HI}$ )
NFS486HI Nutrition and Human 26L, I3T Disease
Role of dietary fat in normal development and in human diseases including cancer, diabetes and cardiovascular disease. Current issues relating to their prevention or treatment with diet will be discussed, illustrated with reference to general pathophysiological and biochemical principles and current literature.
Prerequisite: $\mathrm{BCH} 2 \mathrm{IOHI}, \mathrm{BIO} 349 \mathrm{HI} / \mathrm{PSL} 350 \mathrm{H}, \mathrm{NFS} 284 \mathrm{HI}$,
PSL302YI, STA $(220 \mathrm{HI}, 221 \mathrm{HI} / J \mathrm{BS} 229 \mathrm{HI})$
NFS487HI Functional Foods and 26L, I4T Nutrigenomics
Scientific principles and experimental approaches in the development and regulation of functional foods and nutraceuticals. The impact of the human genome on nutrition research. Experimental approaches to investigating gene-diet interactions. Understanding how genetic variability affects nutrient response, and how dietary factors regulate gene expression.
Prerequisites: NFS 284HI, BIO349HI/PSL350H

## NFS488HI Nutritional Toxicology 26L, I3T

Occurrence, mechanism of action, safety and health implications of chemicals naturally present in or added to foods. Interactions of nutrients and toxicants and the effects on their metabolism and utilization. Food safety evaluation and regulatory control. Prerequisite: BCH2IOHI, NFS284HI

## NFS490HI International and Community 26L, I3T

 NutritionThis course focuses on current issues in international and community nutrition including global and domestic food security, micronutrient deficiencies and other forms of undernutrition, maternal and infant/child nutrition, dietary guidance, and food and nutrition policy. The course will consider the environmental, sociopolitical, cultural and biosocial contexts of nutrition.
Prerequisite: NFS284HI
Recommended preparation: GGRI07YI/POLI03YI/SOCIOIYI

## NFS494YI Research Projects in

 Nutritional SciencesResearch experience under the supervision of a Departmental staff member. The course entails designing and carrying out a small research project and the preparation and presentation of both a research proposal and a final report. Note that the research project NFS 494YI requires the prior consent of a staff member who will supervise the project and departmental approval before enrolment. The student is responsible for locating a supervisor and must consult with the course instructor before the beginning of the term. Prerequisite: Permission of Department and Project Supervisor

## Life Sciences: Pharmaceutical Chemistry

## Collaborative Program of the Faculty of Arts \& Science and the Leslie Dan Faculty of Pharmacy

Pharmaceutical Chemistry combines knowledge of the biological, medical, and physical sciences in the study of drug therapy. The emphasis is on the chemical nature of the reactions and interactions involved in drug therapy. The students will receive a solid background in the facets of chemistry the most relevant to drugs: physical, organic, and analytical chemistry. They will also learn the fundamental aspects of the synthesis, manufacture, use, and mode of action of drugs.

Undergraduate Office - General Enquiries:
L. Chung, (4I6-978-2I62), I.chung@utoronto.ca

Program Director:
Dr. R. Macgregor, (4I6-978-7332) rob.macgregor@utoronto.ca

## Pharmaceutical Chemistry Program

## Pharmaceutical Chemistry (Science program)

Enrolment in this program is limited to students with a 2.7 CGPA in the required courses described below. Visit the Pharmaceutical Chemistry Program web site for updated information about requirements, course offerings, and events: http://www.utoronto.ca/pharmacy/pharmchem.

## Specialist program:

(I5.5 courses or their equivalent, including at least one 400series course)

NOTE: Some of the courses listed below may have prerequisites.

First Year:
BIO I50YI; CHM (I38HI,I39HI)/I5IYI; MAT I $35 \mathrm{YI} / I 37 \mathrm{YI}$; PHY I38YI/I40YI
Second Year:
BCH 2IOHI; BIO 250YI; (CHM 220HI,22IHI)/225YI; CHM $247 \mathrm{HI} / 249 \mathrm{HI}$
Third Year:
CHM 2I7HI; PCL 20IHI; PHC 300YI; PHC 320HI; PHC 330YI; PHC 340YI
Fourth Year:
I. CHM 317 HI ; PHC 489 Y I
2. Two full course equivalents from: CHM 346HI; CHM 347HI; CHM 379HI; CHM 4IOHI; CHM 427HI; CHM 440HI; PCL362HI; PHC40IHI; PHC $430 \mathrm{HI} ; \mathrm{PHC} 43 \mathrm{IHI} ; \mathrm{PHC} 450 \mathrm{HI}$; PHC $45 \mathrm{IHI} ; \mathrm{PHC} 452 \mathrm{HI}$; PHC 460 HI ; PHC 46 IHI ; PHC 470HI

## Pharmaceutical Chemistry Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes, all PHC courses are classified as SCIENCE courses except for PHC470HI, which is a SOCIAL SCIENCE course.

PHC300YI Molecular Pharmacology 78L, 26T
The molecular basis for the action of drugs is presented based upon the physicochemical nature of the drug and its target.
Prerequisite: CHM 247HI/249HI; (CHM $220 \mathrm{HI}, 22 \mathrm{IHI}$ )/225YI; BCH 2 IOH

## PHC320HI Medicinal Chemistry <br> 39 L

Modern discovery and synthesis of antibiotics, antineoplastics, antiviral and other therapeutic agents.
Prerequisite: CHM $247 \mathrm{HI} / 249 \mathrm{HI}$; BCH 2 IOHI
PHC330YI Pharmaceutics
78L, 24T
The study of the science and technology underlying drug delivery are covered. The properties of different dosage forms and delivery routes are studied with an emphasis on oral and parenteral routes.
Prerequisite: CHM 247H/249H; CHM (220HI, 22 IHI )/225YI;
BCH 210 HI
PHC340YI Pharmaceutical Chemistry 26L, 78P Laboratory
The scientific basis and practical techniques relevant to modern pharmaceutical development.
Prerequisite: CHM 247HI/249HI; (CHM 220HI,22IHI)/225YI; BCH 210 HI
PHC40IHI Drug Transport across 26L Biological Membranes
The goal of this course is to provide students with knowledge of the molecular processes involved in drug transport across biological cell membranes with emphasis on their physiological and clinical significance.
Prerequisite: PHC300YI, Permission of the Department
PHC430HI Recent Developments in 26L Dosage Form Design
Introduction to controlled drug delivery: Mechanisms and kinetics of controlled drug release. Fundamental theories and mathematical tools for the design of modern dosage forms Development and applications of controlled drug delivery dosage forms.
Recommended: (PHC330YI,PHC340YI)/PHM224YI, Permission of the Department
PHC43IHI Selected Topics in Drug 26L Development
In-depth discussion of implementation of pharmaceutical sciences in drug development strategies. Students will apply fundamental principles of pharmaceutics and drug delivery to current problems in the pharmaceutical industry.
Recommended: (PHC330YI,PHC340YI)/PHM224YI, Permission of the Department
PHC450HI Applications of 2IL, I6P
Pharmaceutical Analysis in Pharmacy and Medicine
Overview of methods of pharmaceutical analysis such as titrations, UV-visible, IR, NMR and mass spectroscopy, fluorescence, HPLC, GC, TLC, electrophoresis, blotting, immunoassays and radiometric methods. Regulatory aspects of drug product quality control are covered. Introduces applications in pharmacy, therapeutic drug monitoring, toxicology, forensic science, athletics and clinical laboratory medicine.
Prerequisites: PHC300Y I/PHM222Y, (PHC330YI,PHC340YI)/ PHM224Y, Permission of the Department

PHC45IHI Radiopharmaceuticals in I4L, I4P Diagnosis and Therapy
Presents use of radiopharmaceuticals in diagnosis and therapy, emphasizing those used in nuclear medicine procedures studying neurological, cardiovascular, pulmonary, gastrointestinal, haematologic, endocrine and bone pathology.
Prerequisite: (PHC330YI,PHC340Y)/PHM 224YI, Permission of the Department
PHC452HI Selected Topics in I4L, I2P

## Radiopharmaceuticals

Introduces nuclear pharmacy through the discussion of problems that explain the design, production, analysis, and the clinical use of radiopharmaceuticals. Topics introduced using group discussions and laboratory exercises.
Prerequisites: (PHC330Y,PHC340Y)/PHM224Y, Permission of the Department

## PHC460HI Fundamentals of Drug Discovery 26L

Lectures by scientists from academia and industry, and student seminars based on journal articles dealing with strategies for discovering new drugs for therapy and diagnosis.
Prerequisites: BIO250YI, PHC300Y I/PHM222YI, Permission of the Instructor

## PHC46IHI Selected Topics in the 26L Pharmaceutical Industry

Introduces drug development from the perspective of the pharmaceutical industry. Describes key stages in drug development process; current issues facing industry and role of pharmacists and pharmaceutical scientists in the process. Lectures are given by specialists employed in the pharmaceutical industry and concepts covered in the lectures will be applied to in-class case studies.
Prerequisites: PHC300YI/PHM222YI, (PHC330YI,PHC340YI)/
PHM224YI, Permission of the Department

## PHC470HI Global Pharmaceutical Policy: 26L Power and Politics

Introduces concepts and issues in international pharmaceutical policy. Emphasis placed on how governments in different jurisdictions manage their public health responsibilities, international obligations, and pressure from special interest groups in terms of pharmaceutical policy.
Prerequisite: Permission of the Department
This is a Social Science course.

## PHC489YI Pharmaceutical Chemistry I56P

## Research

This course will provide research experience under the supervision of a Departmental staff member. The goal is to deepen the student's understanding of the scientific basis and practical techniques relevant to modern pharmaceutical development.
Prerequisite: Permission of the Department and the Project
Supervisor

## Life Sciences: Pharmacology and Toxicology

## Collaborative Program of the Faculty of Arts \& Science and the Faculty of Medicine

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J. Mitchell, Ph D
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C. Toal, Ph D
D. Tomkins, Ph D
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M. Zack, Ph D

## Senior Lecturer

C. Woodland, Ph D

## Lecturer

M.Arnot, Ph D

Pharmacology and Toxicology are broadly based and integrative disciplines of biology dealing with the properties of chemical compounds and their interactions with living systems. They provide the scientific basis for the study of chemical actions in the health sciences, the use of drugs as therapeutic agents or as tools in scientific research, the development and control of pharmaceuticals, the investigation and control of pollutants and poisons in natural and social environments, etc. The Department of Pharmacology offers four specialist and two major undergraduate programs of study:
I. Specialist Program in Pharmacology. Pharmacology is the study of the interactions of chemical substances with living systems, with a view to understanding the properties of drugs and their actions from the molecular level to whole body systems. The objectives of this program are to provide a structured introduction to the scientific aspects of the discipline with exposure to some investigational and research problems in preparation for advanced graduate study and research in pharmacology. Students are provided with opportunities to learn about pharmacology and related areas through lectures, tutorials, laboratories, and independent research projects. Pharmacology (and its application in clinical therapeutics) plays
a prominent role in Medicine, Dentistry and Pharmacy. However, there is no equivalence between the professional Pharmacy degree offered in the Faculty of Pharmacy and this Arts \& Science Specialist Program in Pharmacology.
2. Specialist Program in Toxicology. This specialist program deals with the study of the harmful effects of chemicals on the health and behaviour of individuals and society. This program focusses on the application of toxicological knowledge and data and not only serves as preparation for advanced graduate study and research in toxicology, but also for toxicological work in forensic science, nutrition and food science, governmental agencies, consulting agencies, industrial settings, etc. Students are exposed to modern experimental techniques utilized in toxicology and have opportunities for independent research under the supervision of a faculty member. Students interested in environmental toxicology should consider enrolling in the Specialist Program in Environment and Toxicology, jointly sponsored by the Department of Pharmacology and the Centre for Environment.
3. Double Specialist in Pharmacology and Toxicology. This program combines the requirements of the two previous specialist programs. Many students choose to take an extra year to complete this program.
4. Specialist Program in Environment and Toxicology. This program is jointly sponsored by the Department of Pharmacology and the Centre for Environment. For additional information see "Centre for Environment" or consult the website, www.environment.utoronto.ca.
5. Major Programs in Pharmacology and in Toxicology. These programs are intended for undergraduate students who want to have a solid knowledge in these disciplines, allowing students to combine different and complementary areas of expertise in Life Sciences. This approach contributes to a broader and multidisciplinary undergraduate training that is particularly relevant for students interested in pursuing further studies in professional health science programs.

Enrollment in all programs is limited. Minimum CGPAs are required for application to these programs (see below). For further information consult the A\&S Registration Handbook and Timetable and our website: http://www.library.utoronto. ca/pharm_tox/index.htm

Undergraduate Office - General Inquiries:
Medical Sciences Building, Room 4207 (4I6-978-2728)
Undergraduate Coordinator:
Dr. C. Woodland, Medical Sciences Building, Room 4245 (416-978-3102)

## Pharmacology and Toxicology Programs

Enrollment in these Programs is limited. To apply to these programs, you must have a minimum CGPA of 3.0 for the specialist and major programs in Pharmacology and in Toxicology. A minimum CGPA of 3.5 is required for application to the Double Specialist program. Applicants will only be considered if they have completed all of the first year required courses (as shown below). Please note that having the minimum CGPA for application does not guarantee acceptance into the program.

## Pharmacology (Science program)

## Specialist program:

(I5 full courses or their equivalent, including at least three 400series courses)

Enrollment in this program is limited. A minimum CGPA of 3.0 is required.
First Year:
BIOI50YI; CHMI 38 HI, CHMI $39 \mathrm{HI} / I 5 \mathrm{IYI} ;$ MATI $35 \mathrm{YI} / I 37 \mathrm{YI}$; PHYIIOYI/I38YI/I40YI (PHY I38YI recommended)
Second Year:
BCH2IOHI; BIO250YI; BIO260HI/HMB265HI; CHM2I7HI/ $220 \mathrm{HI}, \mathrm{CHM} 247 \mathrm{HI} / 249 \mathrm{HI} ; \mathrm{PCL} 20 \mathrm{IHI}$
Third Year:
BCH370HI; BIO349HI; PCL302HI, PCL376HI (see NOTE I); PSL302YI*, PSL372HI (*NOTE: PSL2OIYI is not acceptable)
Fourth Year:
PCL470YI, PCL47IYI (see NOTE 2), PCL472YI (see NOTE
3 ); and one full-credit equivalent from:ANA300YI/
ZOO263YI/BCH304HI/BCH445HI/ANA3OIHI/
ZOO $325 \mathrm{HI} / \mathrm{ZOO} 328 \mathrm{HI} / \mathrm{PCL} 477 \mathrm{HI}$

## NOTES

I. PCL376HI may be taken either as a pre-requisite or a corequisite to the research project course, PCL472YI.
2. Enrollment in the Pharmacology Laboratory course (PCL47IYI) is restricted to students enrolled in the Pharmacology or Double Specialist programs.
3. Enrollment in the research project course (PCL472YI) is limited and requires permission from the Department of Pharmacology. Students must receive prior consent of an approved supervisor according to departmental guidelines before the Department of Pharmacology will register them in the course. It is the student's responsibility to initiate all necessary preparations before the session starts (see course description).

## Major program in Pharmacology:

(8 full courses or their equivalent, including two 300 -series courses and one 400 -series course)
Enrollment in this program is limited. Students may apply after completing 4 courses including all the First Year requirements with a minimum CGPA of 3.0.
First Year:
BIOI50YI; CHMI38HI, CHMI39HI/I5IYI
Second Year:
BCH2IOHI; BIO250YI; PCL20IHI; CHM2I7HI/220HI (see NOTE I); CHM247HI/249HI
Third Year:
PCL302HI; PSL302YI; BCH370HI/BIO349HI (see NOTE 2)
Fourth Year:
PCL470YI

## NOTES

I. CHM 220 HI requires MATI35YI/I37YI/I5IYI as a prerequisite.
2. BIO 349 HI requires $\mathrm{BIO} 260 \mathrm{HI} / \mathrm{HMB} 265 \mathrm{HI}$ as a prerequisite.
3. Students are not allowed to enroll concurrently in the Major Program in Pharmacology and the Major Program in Toxicology.

## Life Sciences: Pharmacology and Toxicology

4. Students are not allowed to enroll concurrently in the Major Program in Pharmacology and a Specialist Program in Toxicology.

## Toxicology (Science program)

## Specialist program:

(I5.5 full courses or their equivalent, including at least 2.5400 series courses)
Enrollment in this program is limited. A minimum CGPA of 3.0 is required.

First Year:
BIOI50YI; CHMI $38 \mathrm{HI}, \mathrm{CHMI} 39 \mathrm{HI} / \mathrm{I} 5 \mathrm{Y} I ;$ MATI35YI/I37YI; PHYIIOYI/I38YI/I40YI (PHYI38YI recommended)
Second Year:
BCH2IOHI; BIO250YI; BIO260HI/HMB265HI; CHM2I7HI/
$220 \mathrm{HI}, \mathrm{CHM} 247 \mathrm{HI} / 249 \mathrm{HI} ; \mathrm{PCL} 20 \mathrm{IHI}$
Third Year:
BCH370HI; LMP363HI; PCL302HI, PCL362HI, PCL365YI, PCL376HI (see NOTE I); PSL302YI* (*NOTE: PSL2OIYI is not acceptable)
Fourth Year:
LMP30IHI; PCL473YI, PCL474YI (see NOTE 2), PCL48IHI; and one half-credit equivalent from:ANA30IHI/ CHM3IOHI/GGR409HI/NFS488HI/PCL477HI

## NOTES

I. PCL376HI may be taken either as a pre-requisite or a corequisite to the research project course, PCL474YI.
2. Enrollment in the research project course (PCL474YI) is limited and requires permission from the Department of Pharmacology. Students must receive prior consent of an approved supervisor according to departmental guidelines before the Department of Pharmacology will register them in the course. It is the student's responsibility to initiate all necessary preparations before the session starts (see course description).
3. Enrollment in the Toxicology Laboratory course (PCL365YI) is restricted to students enrolled in the Toxicology Specialist or Double Specialist programs.

## Major program:

(8 full courses or their equivalent, including two 300-series courses and one 400-series course).
Enrollment in this program is limited. Students may apply after completing 4 courses including all the First Year requirements with a minimum CGPA of 3.0 .
First Year:
BIOI50YI; CHMI $38 \mathrm{HI}, \mathrm{CHMI} 39 \mathrm{HI} / I 5 \mathrm{IYI}$
Second Year:
BCH2IOHI; BIO250YI; PCL20IHI; CHM2I7HI/220HI (see
NOTE I); CHM247HI/249HI
Third Year:
PCL302HI; PSL302YI; PCL362HI (see NOTE 2)
Fourth Year:
PCL473YI

## NOTES

I. CHM 220 HI requires MATI35YI/I37YI/I5IYI as a prerequisite.
2. Although LMP30IHI (Introduction to the Biochemistry of Human Disease) and LMP363HI (Principles of Pathobiology) are not pre-requisites to enroll in PCL473YI, students are strongly recommended to enroll in at least one of these courses.
3. Students are not allowed to enroll concurrently in the Major Program in Toxicology and the Major Program in Pharmacology.
4. Students are not allowed to enroll concurrently in the Major Program in Toxicology and a Specialist Program in Pharmacology.

## Double Specialist in Pharmacology and Toxicology (Science program)

This program requires completion of both the Pharmacology and Toxicology Specialist courses and may require an extra year for completion. Enrollment in this program is limited and a minimum CGPA of 3.5 is required. Students are allowed to enroll in only one of the two project course (PCL472Y/ PCL474Y) offered by the Department of Pharmacology.

## Specialist program in Environment and Toxicology (Science program)

This program is jointly sponsored by the Department of Pharmacology and the Centre for Environment. For additional information see "Centre for Environment" or consult the website, www.environment.utoronto.ca.

## Pharmacology and Toxicology Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes, all PCL courses are classified as SCIENCE courses (see page 27).

## PCL299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.
PCL20IHI Introduction to Pharmacology: 39L, I3T Pharmacokinetic Principles
A general introduction to pharmacology. Topics include absorption, distribution, biotransformation, elimination, calculation of dosages, variability in drug response and adverse drug reactions.
Recommended co-requisites: $\mathrm{BIO} 250 \mathrm{Y} \mathrm{I}, \mathrm{CHM} 2 \mathrm{I} 7 \mathrm{HI} / 220 \mathrm{HI}$, CHM $247 \mathrm{HI} / 249 \mathrm{HI}$
PCL302HI Introduction to Pharmacology: 39L, I3T Pharmacodynamic Principles
Topics include biological action of drugs on membranes, enzymes, receptors, neural and hormonal systems, transmission and modulation.
Prerequisites: BIO250YI, CHM2I7HI/220HI, CHM $247 \mathrm{HI} /$ $249 \mathrm{HI}, \mathrm{PCL} 20 \mathrm{IHI}$
PCL362HI Introductory Toxicology 26L
Toxicological problems encountered in animals and humans; biochemical mechanisms and clinical factors of toxicological significance; models of drug-related diseases.

Prerequisites: $\mathrm{BCH} 2 \mathrm{IOHI}, \mathrm{BIO} 250 \mathrm{YI}, \mathrm{CHM} 2 \mathrm{I} 7 \mathrm{HI} / 220 \mathrm{HI}$, CHM $247 \mathrm{HI} / 249 \mathrm{HI}, \mathrm{PCL} 20 \mathrm{IHI}$
Recommended Co-requisite: BIO349HI, PCL302HI

## PCL365YI Toxicology Laboratory 20L, 72P

A hands-on laboratory course exploring a wide variety of modern experimental techniques currently utilized in toxicology. This course will provide the experimental theory of how the techniques work and their advantages and disadvantages, while additionally allowing students to perform these techniques in the process of addressing toxicological problems. Enrollment in this course is restricted to students enrolled in the Toxicology Specialist and Double Specialist programs.
Prerequisites: PCL20IHI
Co-requisites: PCL302HI, BCH370HI, PSL302YI

## PCL376HI Experimental Design and

 Data Analysis for Pharmacology and ToxicologyA practically oriented course, focussed on experimental design and the analysis of pharmacological and toxicological data. Topics include: principles of experimental design, data analysis and statistical tests appropriate for each type, use of computing statistical packages, analysis of dose-response and time-response curves and analysis of receptor binding assays. PCL376HI can be taken either as a prerequisite or a co-requisite to the research project course PCL472YI/474YI.
Prerequisite: PCL201HI
Co-requisite: PCL302HI
Exclusion: PCL476HI

## PCL470YI Systems Pharmacology 78L

Concepts of the properties of drugs and chemicals and their interaction with living systems and their constituent parts. Mechanism of action and pharmacological properties of drugs acting on the autonomic and central nervous systems, cardiovascular, renal, respiratory, gastrointestinal, immunological and endocrine systems; endogenous compounds; antimicrobial and anti-inflammatory drugs, chemotherapy and special topics in pharmacology.
Prerequisites: BCH2IOHI, PCL20IHI, PCL302HI, PSL302Y।

## PCL47IYI Pharmacology Laboratory I04P

Demonstrations, seminars, and laboratory exercises in selected areas of Pharmacology. Enrollment in this course is restricted to students enrolled in the Pharmacology Specialist and Double Specialist programs.
Prerequisites: BCH370HI, PSL372HI, PCL20IHI, PCL302HI
and permission of Department
Co-requisite: PCL470YI

## PCL472YI Project in Pharmacology

This course affords students an opportunity for hands-on research experience in a laboratory or applied pharmacology setting. Students will work under the supervision of a staff member and will submit a final written report. Enrollment is limited and requires permission from the Department of Pharmacology. It is the student's responsibility to secure a placement with an approved supervisor before the course begins (a list of potential supervisors can be obtained from the Department of Pharmacology). Students will be registered in the course once their ballot form (obtained from the Department of Pharmacology) is signed by an approved supervisor and approved by the Department of Pharmacology. .
Prerequisites: PCL20IHI, PCL302HI, PCL376HI (see NOTES above) and permission of Department Co-requisite: PCL376HI (see NOTES above) Exclusion: PCL474YI

PCL473YI Interdisciplinary Toxicology 52L
A survey course examining traditional and contemporary problems in toxicology. The toxicities associated with a variety of toxins and toxicants are examined. General principles and the application of toxicological knowledge are discussed including clinical toxicology, forensic toxicology, and risk assessment. Prerequisites: BCH2 I0HI, PCL20IHI, PCL302HI, PCL362HI Recommended preparation: BIO349HI

## PCL474YI Project in Toxicology

This course affords students an opportunity for hands-on research experience in a laboratory or applied toxicology setting. Students will work under the supervision of a staff member and will submit a final written report. Enrollment is limited and requires permission from the Department of Pharmacology. It is the student's responsibility to secure a placement with an approved supervisor before the course begins (a list of potential supervisors can be obtained from the Department of Pharmacology). Students will be registered in the course once their ballot form (obtained from the Department of Pharmacology) is signed by an approved supervisor and approved by the Department of Pharmacology. .
Prerequisites: PCL20IHI, PCL302HI, PCL376HI (see NOTES above) and permission of Department
Co-requisite: PCL376HI (see NOTES above)
Exclusion: PCL472YI
PCL475YI Neuropsychopharmacology 78L, 26T
Major neuro-psychiatric disease syndromes: clinical pathology and neuronal abnormalities; CNS drugs: theories and mechanisms of action.
Prerequisite: Enrollment is limited to students with a minimum CGPA of 3.0.

PCL477HI The DNA Damage Response in 26L Pharmacology and Toxicology
Many anticancer drugs and environmental agents exert their cytotoxic effects through DNA damage. This course explores specific pharmacological and toxicological agents that damage DNA and discusses how mammalian cells respond to this DNA damage.
Prerequisite: $\mathrm{BCH} 210 \mathrm{HI} / 242 \mathrm{Y}$ I
Recommended Preparation: PCL20IHI, PCL302HI, BIO349HI/ JLM349HI/MGY3IIYI/PSL350HI

PCL48IHI The Molecular and Biochemical 26L Basis of Toxicology
The biochemical principles and molecular mechanisms underlying the toxicity of drugs and foreign agents. The sequence of events at the molecular level leading to impairment of cell function and the factors which determine and affect toxicity.
Prerequisites: PCL20IHI, PCL302HI, PCL362HI, BCH2IOHI, LMP363HI

## Life Sciences: Physiology

## Collaborative Program of the Faculty of Arts \& Science and the Faculty of Medicine

## Faculty

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D.R. McLachlan, MD, FRCP (C)
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Professor and Chair of the Department
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## Assistant Professors

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A. Volchuk, Ph D
Q. Wan, MD, Ph D
Q. Wang, MD, Ph D
M. Zhen, Ph D

## Senior Lecturer

C. Perumalla, M Sc, D Phil

Physiology is the study of living matter in action. It explains body organ function in terms of physical and chemical principles. It is an integrating discipline dealing with controls, compensations, and interrelationships. Interaction with the environment is a major factor in Physiology. In addition, Physiology serves as a bridge between cellular biology, systems analysis, and behaviour.

Physiology provides a necessary background for the study of Pharmacology; a preparation for graduate work in Physiology and related areas; for the teaching of Biological Science in secondary schools; or for subsequent training in Medicine, Dentistry, Pharmacy, Nursing, and the Health Sciences in general. Physiologists are needed also in hospitals and departments of medicine as teachers and research personnel. Other outlets would be in agriculture and veterinary schools, in military research establishments and in life science-based industry. The development of air and space travel, the exploration of the continental shelf, the development of Northern regions, and increased emphasis on exercise and fitness, all provide business and research opportunities for the person trained in Physiology.

Physiology at the research level covers a variety of specialties (e.g. Endocrinology, Cardiovascular Physiology, Neurophysiology, Respiratory Physiology, Reproductive Physiology, Sensory Physiology), each with very different technical and analytical methods. More information is available on the departmental web-site (www.uoftphysiology.com). Students in the Major program are encouraged to combine Physiology with a non-Life Science major, e.g. Computer Science, Chemistry, Physics or Mathematics.

Undergraduate Secretary: Professor W.A. MacKay, Medical Sciences Building, Room 3368 (416-978-2675)

Enquiries and Counseling: Medical Sciences Building, Room 3209 (416-978-5077)

## Physiology Programs

## Biophysics: see Physics

Neuroscience: see Life Sciences:Human Biology

## Physiology (Science program)

Enrolment in this Program is limited. Selection is based on GPA in first year required courses.

## Specialist program:

(14 full courses or their equivalent, including at least two 400series course)

First Year:
BIO I50YI; CHM I38HI, I39HI; MAT I35YI/I37YI; PHY IIOYI/I38YI/I40YI (PHY I38YI recommended)
Second Year:
BCH 210HI; BIO 250YI; CHM 247HI/ CHM 220HI; MAT 235YI/PHY 238YI; PSL 302YI
Third Year:
I. BCH 370 HI ; CSB $349 \mathrm{HI} / \mathrm{PSL} 350 \mathrm{HI}$; PSL 303 Y , 372 HI , 374 HI
2. One full-course equivalent from: ANA $300 \mathrm{YI} ; \mathrm{BCH} 304 \mathrm{HI}$, 305HI; IMM 334YI; JZP 326HI; PCL $20 \mathrm{IHI}, 302 \mathrm{HI}$; STA $250 \mathrm{HI} ; \mathrm{CSB} 325 \mathrm{HI}, 332 \mathrm{HI}, 345 \mathrm{HI}, 346 \mathrm{HI}, 347 \mathrm{HI}$
Fourth Year:
Two full-course equivalents from: PSL 400-series

## Major program:

(8 full courses or their equivalent)
Enrolment in this Program is limited. Students may apply after completing 4 courses including all the First Year requirements.
First Year:
BIO I50YI; CHM I38HI, I39HI; MAT I35YI/PHY IIOYI/I38YI
Second Year:
BCH 210 HI ; BIO 250YI; PSL 302YI
Higher Years:
I. PSL 372 HI
2. One full-course equivalent from:ANA $300 \mathrm{YI} ; \mathrm{BCH} 304 \mathrm{HI}$, 305 HI ; IMM 334 YI ; JZP 326 HI ; PCL $20 \mathrm{IHI}, 302 \mathrm{HI}$; CSB $330 \mathrm{HI}, 325 \mathrm{HI}, 332 \mathrm{HI}, 345 \mathrm{HI}, 346 \mathrm{HI}, 347 \mathrm{HI}, 349 \mathrm{HI}$
3. One full-course equivalent from: PSL $303 \mathrm{YI}, 374 \mathrm{HI}, 350 \mathrm{HI}$, 400-level courses

## Minor program:

(4 full courses or their equivalent)
Enrolment in this Program requires the completion of 4 courses; no minimum GPA required. One 300-series course must be included in the program.
I. BIO I50YI; PSL $201 \mathrm{YI} / 302 \mathrm{Y}$ I
2. Two full-course equivalents from: $\mathrm{BIO} 25 \mathrm{IYI}, 252 \mathrm{YI}$, 328 HI ; JZP $326 \mathrm{HI}, 428 \mathrm{HI}$; NRS $20 \mathrm{IHI} / \mathrm{HMB} 200 \mathrm{HI}$; PSL $303 \mathrm{YI}, 350 \mathrm{HI}, 400$-series; PSY $290 \mathrm{HI}, 39 \mathrm{IHI}$; CSB, 325 HI , $332 \mathrm{HI}, 344 \mathrm{HI}, 345 \mathrm{HI}, 346 \mathrm{HI}, 347 \mathrm{HI}$

## Physiology Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), all PSL courses are classified as SCIENCE courses.

PSL20IYI Basic Human Physiology 52L
A survey course intended for students who are not proceeding further in Physiology.
Exclusion: Any PSL course taken previously or concurrently Prerequisite: 100 -level course in BIO or equivalent

## PSL299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.
PSL300HI Human Physiology I 39L, 5T
Principles of neurophysiology and endocrinology for students enroled in the Neuroscience program.
Exclusion: PSL20IYI, PSY39IHI
Prerequisite: BIOI5OYI; CHMI 38 HI ; PHYIOO-series

## PSL30IHI Human Physiology II 39L, 4T

Principles of respiratory, cardiovascular, gastrointestinal, renal and reproductive physiology for students enroled in the Neuroscience program.
Exclusion: PSL20IYI
Prerequisite: BIOI50YI; CHMI38HI; PSL 300HI
JBO302YI Human Physiology and 78L, I2T

## Biophysics

Principles of Human Physiology with tutorials on the biophysical concepts applied to physiological processes. Restricted to students enroled in the Biophysics program.
Exclusion: PSL20IYI, 302YI
Prerequisite: BIOI50YI; CHMI38HI; MATI35YI/I37YI; PHYI38YI/I40YI
PSL302YI Human Physiology 78L, 9T
Principles of Human Physiology for students enroled in Basic Medical Science programs.
Exclusion: PSL20IYI
Prerequisite: BIOI50YI, CHMI 38 HI ; MATIOO-series/PHYIOOseries

## PSL303YI Topics in Cellular, Molecular 78L, 26T and Organismic Physiology

Using homeostasis and feedback as a unifying theme, topics in control systems, cell signaling, rhythms, environmental adaptations and body weight regulations are examined. Tutorials use computer simulations and problem sets.
Prerequisite: JBO 302 Y I/PSL302YI, MAT 100-series, PHY 100series
Co-requisite: PSL372HI, 374 HI or permission of Department
PSL350HI Mammalian Molecular Biology 20L, 6S
Molecular biology is essential for understanding mammalian function. The knowledge from BIO250Y of DNA, RNA, and protein is extended to current, primary literature on mammalian molecular biology. Application of molecular biology to disease and to complex behaviors is followed by small group sessions on topics with a bioethics component.
Prerequisite: BIO250YI
Exclusion: BIO349HI/CSB349HI/MGY3IIYI
Pre- or Co-requisite: PSL300HI/30IHI/302YI/ JBO302YI/ BCH 2 IOHI

## PSL372HI Mammalian Physiology I3L, 39P Laboratory

A laboratory course covering selected topics in physiology.
Prerequisite: BIO250YI, BCH2IOHI, MAT 100-series/PHY 100series
Pre- or Co-requisite: PSL302YI, BCH370HI (recommended)
PSL374HI $\begin{aligned} & \text { Advanced Physiology } \\ & \begin{array}{l}\text { Laboratory }\end{array}\end{aligned}$
A problem-based laboratory course focused on the integration of organ systems to understand the control mechanisms of body function.
Prerequisite: BIO250YI, PSL302YI, PSL372HI
Co-requisite: BCH 370 HI
PSL420HI $\begin{aligned} & \text { Reproduction I: Development 26L } \\ & \text { and Function }\end{aligned}$
This course provides an in-depth review of the development and function of the male and female reproductive systems.
Topics include sex determination and differentiation,
gametogenesis, hormonal control of the reproductive systems,
the female ovulatory cycle, seasonal breeding, sexual behaviour, fertilization and implantation.
Prerequisite: PSL302YI

## PSL42IHI Reproduction II: Pregnancy 26L

 and BirthGeneral overview of the integrated physiologic events associated with pregnancy and birth. The approach emphasizes physiologic processes using insights gained from studies of humans, animals, cells and genes. Where appropriate the clinical consequences of aberrant development are reviewed.
Prerequisite: PSL302YI
Recommended Preparation: PSL420HI

## PSL425HI Integrative Metabolism and its Endocrine Regulation

This course integrates the newest findings and experimental approaches from cellular and molecular biology into metabolic function at the tissue, organ and whole body level.
Prerequisite: $\mathrm{BCH} 210 \mathrm{HI}, \mathrm{PSL} 302 \mathrm{YI}$
Recommended Preparation: PSL303YI

## PSL432HI Theoretical Physiology

Theoretical treatment of neurophysiology. Mathematical modeling and analysis of neurophysiological systems.
Prerequisite: MAT235YI/237YI;APM346HI/MAT244HI
Recommended Preparation: PHY200-series; PSL20IYI/302YI/ BIO252YI
PSL440YI Neuroscience I: Systems and 78L Behaviour
Introduction to systems neuroscience. A review of basic
neuroanatomy and physiology followed by in-depth study of selected sensory and motor systems. Students with an elementary neuroscience background progress to reading neuroscience literature on their own.
Prerequisite: PSL300HI/302YI/PSY290HI/CSB332HI or equivalent

## PSL443HI Motor Control Systems 26L

Control of body movement and posture by the nervous system in normal and pathological conditions. Topics include nonlinear dynamical systems, central pattern generators in the cerebral cortex, brainstem and spinal cord, reflexes, and basal gangliacerebellar function.
Prerequisite: PSL300HI/302YI
PSL444YI Neuroscience II: Cellular and 78L

## Molecular

Overview of the fundamentals of cellular and molecular aspects of brain function. Course material is updated yearly to reflect the rapid evolution of ideas in Neuroscience.
Prerequisite: PSL300HI/302YI/CSB332HI

## PSL 450HI <br> Mechanisms of Neural and

Exocytosis and other aspects of secretion mainly in neurons and neuroendocrine cells, but also in pancreatic cells. Topics include synapse anatomy and physiology, synaptic plasma membrane and vesicle proteins, membrane fusion, genetic tools, endocrine secretion, plasticity in neurotransmitter release, diseases arising from secretion defects.
Prerequisite: BCH 210HI, PSL 302YI/BIO 252YI, PSL 350HI/
CSB 349HI

PSL452HI Membrane Physiology 26L
Biophysics and molecular biology of ion channels. Topics include equivalent circuits for cells, molecular structure of voltagegated channels, distribution of channels, relationship between single-channel and whole-cell recording and regulation of channel function by voltage, phosphorylation, G-proteins and metabolites.
Prerequisite: PSL303Y।
Recommended Preparation: PSL432HI
PSL454HI Physiological Instrumentation I3L, 39P and Electronics
A practical approach to instrumentation as a preparation for using sophisticated measurement systems.
Prerequisite: PHYI38YI or equivalent
PSL460HI Molecular Physiology 26L, 4S
An overview of the ways in which techniques in molecular biology are being used to resolve current issues in physiology. The systems to be studied include individual cells, organ systems, integrated systems, and whole animal physiology and pathophysiology.
Prerequisite: BCH2IOHI, BIO250YI, CSB349HI/PSL350HI,
PSL302YI

## PSL462HI Molecular Aspects of 26L Cardiovascular Function

Heart anatomy and development, ion channels and contractile proteins involved in cardiac and smooth muscle contraction are studied. Emphasis is on regulation of electrical and contractile function of kinases, metabolism, volume and ions.
Prerequisite: PSL303Y।
PSL470HI Cardiovascular Physiology 26L, I3T
Development of the cardiovascular system from conception to adulthood with particular emphasis on maturational changes, age-related differences and developmental problems from cellular/molecular to whole organ/system.
Prerequisite: PSL302YI

## PSL472HI Sleep Physiology and <br> Chronobiology

An in-depth analysis of the basic physiology underlying sleep and circadian rhythms, and of their impact on important physiological processes, of which effects on cardio-respiratory systems are emphasized.
Prerequisite: PSL302YI

## PSL498YI/ Project in Physiology I56P/78P

## 499HI

Laboratory research project with reading assignments leading to a final report. By special arrangement with a Physiology staff member after admission to course. PSL498YI is recommended for students applying to the Physiology graduate program. Prerequisite: PSL303YI, $372 \mathrm{HI}, 374 \mathrm{HI}$, permission of Department

## Faculty

University Professors Emeriti<br>E. Tulving, MA, Ph D, D Litt, FD, FRS<br>F.I.M. Craik, B Sc, Ph D, FRSC<br>Professors Emeriti<br>A.J. Arrowood, BA, Ph D<br>J.L. Freedman, MA, Ph D<br>J.J. Furedy, MA, Ph D<br>J.A. Hogan, MA, Ph D<br>M.W. Lawrence, MA, Ph D<br>R.S. Lockhart, MA, Ph D (N)<br>N. Mrosovsky, BA, Ph D<br>B.B. Murdock, BA, Ph D<br>B.B. Schiff, M Sc, Ph D<br>A.M. Wall, BA, Ph D<br>G.C.Walters, BA, Ph D (W)<br>B.T.Wigdor, CM, Ph D, D Sc

## Professor and Interim Chair of the <br> Department

C.P. Herman, BA, Ph D

## Professor and Acting Director

(Undergraduate Studies) (to Dec 3 I, 2007)
C.C. Helwig, BA, Ph D

Assistant Professor and Acting Director (Undergraduate Studies) (Jan I to June 30, 2008)
S. Ferber, Diplom, Ph D

Professor and Director (Graduate Studies)
J.W. Pratt, MS, Ph D

## Professors

D. Goldstein, MA, Ph D
J.E. Grusec, BA, Ph D
L. Hasher, AB, Ph D
M. Moscovitch, MA, Ph D
M.R. Ralph, BS, Ph D
S.J. Shettleworth, MA, Ph D
I. Spence, MA, Ph D
F.J.Vaccarino, M Sc, Ph D
J.S. Yeomans, BA, Ph D (U)

Associate Professors
A. Chasteen, MA, Ph D
G. Einstein, MA, Ph D
P. Lockwood, MA, Ph D
G. MacDonald, BA, Ph D
J.B. Peterson, BA, Ph D
J.E. Plaks, MA, M Phil, Ph D
R.W.Tafarodi, BA, Ph D

## Assistant Professors

G.Adams, Ph D
A. Anderson, Ph D
D. Barner, MA, Ph D
E. DeRosa, Ph D
H. Lempert, M Sc, Ph D
J.L. Tackett, MA, Ph D

## Special Lecturers

M. Bagby, Ph D
M. Gemar, B Sc, Ph D
R. Hetherington, MA, Ph D
N. Rector, BA, Ph D
N. Stuckless, Ph D
D. Urbszat, Ph D
J.Vervaeke, Ph D

## Lecturer

D. Dolderman, Ph D
F. Taverna, Ph D

Psychology is that branch of science which focuses on the behaviour of human beings and animals, with particular emphasis on the individual rather than the group. Our courses span the various areas of psychology and introduce students to the methods used in psychological research. The basic tools of the research psychologist include experimentation in the laboratory and field, naturalistic observation, and the use of statistical methods in interpreting data.

Our faculty have highly diversified interests which are reflected in the number and variety of our undergraduate course offerings. These include courses in developmental psychology, social psychology, personality, abnormal psychology, human and animal learning, cognitive psychology, perception, and physiological psychology. A more detailed description of the individual courses and the names and interests of the course instructors appear on web pages at http://www.psych.utoronto. $\mathrm{ca} / \sim$ undergra/undergrad.html. We encourage students at all levels, and particularly those who are beginning a Major or Specialist program in Psychology, to consult the Undergraduate Psychology Web Site before selecting courses and to discuss their proposed programs with the Undergraduate Advisor, the Undergraduate Director, or a faculty member in the Department.

Courses in the various areas within Psychology and the numbering system associated with these courses follow a definite pattern: PSY XXX. The first digit represents the year, and the second digit represents the area in which the course belongs. Social Psychology, for example, is identified by " 2 ." Therefore, PSY 220 at the second year, PSY 320, 321, 322, and 323 at the third year, and PSY 420 at the fourth year represent all the Social Psychology courses. Other areas within Psychology follow a similar pattern.

Students in St. George campus Psychology programs are given first priority for enrolment in all second, third and fourth year Psychology courses. Please consult the Registration Handbook \& Timetable for details.

Undergraduate Advisor: Sidney Smith Hall, Room 4014 (416-978-3407)

## General Enquiries: Sidney Smith Hall, Room 4020 (4I6-978-

 7617)Undergraduate Web Site:
http://www.psych.utoronto.ca/~undergra/undergrad.html

## Psychology Programs

(See Undergraduate Web Site for further details)
NOTE: JLP $3 \mathrm{I} 5 \mathrm{HI}, 374 \mathrm{HI}, 47 \mathrm{IHI}$ count as PSY credits for all Psychology programs.

Entry into all Psychology programs requires an OAC or MCB4U Calculus (or equivalent). There is, however, no Calculus prerequisite for PSYIOOHI. Students who completed PSYIOOHI in 1997 or earlier at the University of Toronto are exempt from the OAC/MCB4U Calculus requirement.

## Psychology Research (Science program)

## Specialist program:

( 9.0 full courses or their equivalent, including at least 1.5400 series full courses or equivalent, and no more than 10.0 full courses)

This program is designed for students who have demonstrated particular interest and aptitude in research. Enrolment in the Research Specialist program is limited. Students apply in the spring term of their second year. All students enrolling in or considering the Research Specialist program should enroll in a PSY lab course in the fall of their third year. Admission to the program is based on academic performance and expressed interest in research. To be admitted students must have completed a) OAC/MCB4U Calculus or equivalent; b) PSY 100 HIYI ; c) PSY 201 HI and 202 HI (or equivalent); d) four 200-level PSY courses, with an average of at least $73 \%$ across all PSY courses. (Note that this does not mean 73\% in each PSY course); and e) have a CGPA of at least 3.0. Please see the Undergraduate Web Site for additional information on requirements and applying to the Program.
NOTE:The courses include 1.0 full course equivalent in Statistics and 8.0 full courses or equivalent in PSY
First Year:
PSY IOOHI/IOOYI
After PSYIOO:
I. Statistics: PSY ( $20 \mathrm{IHI}, 202 \mathrm{HI}$ )/ECO $220 \mathrm{YI} / 227 \mathrm{YI} / G G R$ $270 \mathrm{YI} /$ SOC $(202 \mathrm{HI}, 300 \mathrm{HI}) / \mathrm{STA}(220 \mathrm{HI}, 22 \mathrm{IHI}) / 250 \mathrm{HI}$
2. Two of PSY $210 \mathrm{HI}, 220 \mathrm{HI}, 230 \mathrm{HI}, 240 \mathrm{HI}$ (Cluster A), and two of $260 \mathrm{HI}, 270 \mathrm{HI}, 280 \mathrm{HI}, 290 \mathrm{HI}$ (Cluster B)
3. Four half-courses at the 300 -level from Group I below, with at least one half-course from each of Clusters $A$ and $B$
4. One of PSY $3 \mathrm{I} 9 \mathrm{HI} / 329 \mathrm{HI} / 339 \mathrm{HI} / 369 \mathrm{HI} / 379 \mathrm{HI} /$ $389 \mathrm{HI} / 399 \mathrm{HI}$
5. PSY 309 HI
6. PSY $400 \mathrm{YI}, 409 \mathrm{HI}$
7. Two courses ( H or Y ) at any level, taken from Groups I and/or 2 below

## Psychology (Science program)

## Specialist program:

( 9.0 full courses or their equivalent, including at least one 400series full course or equivalent, and no more than 10.0 full courses)

Enrolment in the Specialist program is limited. Students may enrol in their second or third year. To enrol in second year, students must have a) OAC/MCB4U Calculus or equivalent; b) completed 4 full courses; c) obtained at least $80 \%$ in PSY 100 HI ; d) a CGPA of at least 3.0. To enrol in third year, students
must have completed a) OAC/MCB4U Calculus or equivalent; b) a $70 \%$ in PSY 100 HI ; c) PSY 20 IHI and 202 HI (or equivalent); d) four 200-level PSY courses, with an average of at least $73 \%$ across all PSY courses (Note that this does not mean $73 \%$ in each PSY course); and e) have a CGPA of at least 3.0.

NOTE:The courses include 1.0 courses in Statistics and 8.0 full courses or equivalent in PSY
First Year:
PSY 100HI/I00YI
After PSY 100:
I. Statistics: PSY $(20 \mathrm{IHI}, 202 \mathrm{HI}) / \mathrm{ECO} 220 \mathrm{YI} / 227 \mathrm{YI} / \mathrm{GGR}$ $270 \mathrm{YI} / \mathrm{SOC}(202 \mathrm{HI}, 300 \mathrm{HI}) / \mathrm{STA}(220 \mathrm{HI}, 22 \mathrm{IHI}) / 250 \mathrm{HI}$
2. Two of PSY $210 \mathrm{HI}, 220 \mathrm{HI}, 230 \mathrm{HI}, 240 \mathrm{HI}$ (Cluster A), and two of $260 \mathrm{HI}, 270 \mathrm{HI}, 280 \mathrm{HI}, 290 \mathrm{HI}$ (Cluster B)
3. Five half-courses at the 300 -level from Group I below, with at least one from each of Clusters $A$ and $B$
4. One of: PSY $319 \mathrm{HI} / 329 \mathrm{HI} / 339 \mathrm{HI} / 369 \mathrm{HI} / 379 \mathrm{HI} / 389 \mathrm{HI} /$ 399HI
5. Two 400 -level seminars from: JLP $47 \mathrm{IHI} /$ PSY $40 \mathrm{IHI} / 4 \mathrm{IOHI} / 420 \mathrm{HI} / 430 \mathrm{HI} / 440 \mathrm{HI} / 460 \mathrm{HI} /$ $470 \mathrm{HI} / 47 \mathrm{IHI} / 472 \mathrm{HI} / 473 \mathrm{HI} / 480 \mathrm{HI} / 490 \mathrm{HI} / 497 \mathrm{HI}$
6. Three courses (H or Y ) at any level taken from Groups I and/or 2 below

## Major program:

(6.5 full courses or their equivalent, and no more than 7.5 full courses)
Enrolment in the Major program is limited. To enrol, students must have a) OAC/MCB4U Calculus or equivalent; b) completed 4 full courses; c) at least $70 \%$ in PSY $100 \mathrm{HI} / \mathrm{YI}$; and d) a CGPA of 2.5.

NOTE:The courses include 0.5 courses in Statistics and 6.0 full courses or equivalent in PSY
First Year:
PSY 100HI/I00YI
After PSY I00:
I. Statistics: PSY $201 \mathrm{HI} / E C O 220 \mathrm{YI} / 227 \mathrm{YI} / \mathrm{GGR} 270 \mathrm{HI} / \mathrm{SOC}$ 202HI/STA $220 \mathrm{HI} / 250 \mathrm{HI}$
2. Two of PSY $2 \mathrm{IOHI}, 220 \mathrm{HI}, 230 \mathrm{HI}, 240 \mathrm{HI}$ (Cluster A), and two of $260 \mathrm{HI}, 270 \mathrm{HI}, 280 \mathrm{HI}, 290 \mathrm{HI}$ (Cluster B)
3. Four half-courses at the 300 -level from Group I below, with at least one from each of Clusters $A$ and $B$
4. Three courses ( H or Y ) at any level taken from Groups I and/or 2 below

## Minor program:

(4 full courses or their equivalent, and no more than 5.0 full courses)
Enrolment in the Minor program is limited. To enrol, students must have a) OAC/MCB4U Calculus or equivalent; b) completed 4 full courses; c) at least $70 \%$ in PSY 100 HI ; and d) a CGPA of 2.0.

NOTE:The courses include 0.5 courses in Statistics and 3.5 full courses or equivalent in PSY

First Year:
PSY 100HI/IOOYI
After PSY 100:
I. Statistics: PSY $201 \mathrm{HI} / \mathrm{ECO} 220 \mathrm{YI} / 227 \mathrm{YI} / \mathrm{GGR} 270 \mathrm{HI} / \mathrm{SOC}$ $202 \mathrm{HI} / \mathrm{STA} 220 \mathrm{HI} / 250 \mathrm{HI}$
2. At least two of: PSY $210 \mathrm{HI} / 220 \mathrm{HI} / 230 \mathrm{HI} / 240 \mathrm{HI} / 260 \mathrm{HI} /$ $270 \mathrm{HI} / 280 \mathrm{HI} / 290 \mathrm{HI}$
3. At least two half-courses at the 300 -level taken from Group I below, in any of Clusters A and B
4. At least two courses ( $H$ or $Y$ ) at any level, taken from Groups I and/or 2 below

## Group I:

## Cluster A:

JLP $315 \mathrm{HI} /$ PSY $210 \mathrm{HI} / 220 \mathrm{HI} / 230 \mathrm{HI} / 240 \mathrm{HI} / 300 \mathrm{HI} /$ $30 \mathrm{IHI} / 303 \mathrm{HI} / 304 \mathrm{HI} / 3 \mathrm{IIHI} / 3 \mathrm{I} 2 \mathrm{HI} / 3 \mathrm{I} 3 \mathrm{HI} / 3 \mathrm{I} 4 \mathrm{HI} / 3 \mathrm{I} 6 \mathrm{HI} /$ $317 \mathrm{HI} / 319 \mathrm{HI} / 320 \mathrm{HI} / 32 \mathrm{IHI} / 322 \mathrm{HI} / 323 \mathrm{HI} / 324 \mathrm{HI} / 325 \mathrm{HI} /$ $326 \mathrm{HI} / 327 \mathrm{HI} / 328 \mathrm{HI} / 329 \mathrm{HI} / 330 \mathrm{HI} / 33 \mathrm{IHI} / 332 \mathrm{HI} / 333 \mathrm{HI} /$ $334 \mathrm{HI} / 335 \mathrm{HI} / 336 \mathrm{HI} / 339 \mathrm{HI} / 34 \mathrm{IHI} / 342 \mathrm{HI} / 343 \mathrm{HI} / 40 \mathrm{IHI} /$ $402 \mathrm{HI} / 403 \mathrm{HI} / 404 \mathrm{HI} / 4 \mathrm{IOHI} / 420 \mathrm{HI} / 430 \mathrm{HI} / 440 \mathrm{HI}$

Cluster B:
JLP $374 \mathrm{HI} / 47 \mathrm{IHI} / \mathrm{JZP} 326 \mathrm{HI} / 428 \mathrm{HI} /$ PSY $260 \mathrm{HI} / 270 \mathrm{HI} /$ $280 \mathrm{HI} / 290 \mathrm{HI} / 300 \mathrm{HI} / 30 \mathrm{IHI} / 303 \mathrm{HI} / 304 \mathrm{HI} / 3 \mathrm{I} 2 \mathrm{HI} /$
$316 \mathrm{HI} / 362 \mathrm{HI} / 369 \mathrm{HI} / 370 \mathrm{HI} / 37 \mathrm{IHI} / 372 \mathrm{HI} / 373 \mathrm{HI} / 375 \mathrm{H}$ $1 / 378 \mathrm{HI} / 379 \mathrm{HI} / 380 \mathrm{HI} / 389 \mathrm{HI} / 390 \mathrm{HI} / 39 \mathrm{HI} / 392 \mathrm{HI} / 393 \mathrm{HI} /$ $394 \mathrm{HI} / 396 \mathrm{HI} / 397 \mathrm{HI} / 399 \mathrm{HI} / 402 \mathrm{HI} / 403 \mathrm{HI} / 404 \mathrm{HI} / 460 \mathrm{HI} /$ $470 \mathrm{HI} / 47 \mathrm{IHI} / 472 \mathrm{HI} / 473 \mathrm{HI} / 480 \mathrm{HI} / 490 \mathrm{HI} / 497 \mathrm{HI}$

## Notel:

Some PSY courses are included in both of Clusters A and B and may count in either cluster, but not both, for program requirements.

Group 2:
BIO $150 \mathrm{YI} / 252 \mathrm{HI} / \mathrm{CSB} 332 \mathrm{HI} / \mathrm{ENG} 290 \mathrm{YI} / \mathrm{HIS} 498 \mathrm{HI} / \mathrm{HMB}$ $200 \mathrm{HI} / 420 \mathrm{HI} / \mathrm{LS} 474 \mathrm{HI} / 450 \mathrm{HI} / \mathrm{LIN}$ I $00 \mathrm{YI} / 200 \mathrm{HI} / 372 \mathrm{HI} /$ MGT $262 \mathrm{HI} / \mathrm{NEW} 303 \mathrm{HI} / 372 \mathrm{HI} / \mathrm{NRS} 20 \mathrm{HI} / 202 \mathrm{HI} / 302 \mathrm{HI} /$ $400 \mathrm{YI} / \mathrm{PCL} 475 \mathrm{YI} / \mathrm{PHL} 240 \mathrm{HI} / 243 \mathrm{HI} / 340 \mathrm{HI} / \mathrm{POL} 3 \mathrm{I} 3 \mathrm{YI} / \mathrm{PSL}$ $300 \mathrm{HI} / 30 \mathrm{IHI} / 302 \mathrm{YI} / 433 \mathrm{HI} / 440 \mathrm{YI} / 444 \mathrm{YI} / \mathrm{RLG} 2 \mathrm{IIYI} / 30 \mathrm{IHI} /$ $302 \mathrm{HI} / 303 \mathrm{HI} / 42 \mathrm{IH} / T R N ~ 320 \mathrm{YI} / \mathrm{UNI} 250 \mathrm{YI} / 370 \mathrm{HI} / 40 \mathrm{IHI} /$ $402 \mathrm{HI} / 470 \mathrm{HI} / W D W 260 \mathrm{HI} / 360 \mathrm{HI} / 365 \mathrm{HI}$

## Psychology Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes, all PSY courses are classified as SCIENCE courses (see page 27).

## NOTE:

Students in St. George campus PSY programs will be given first priority to admission for all PSY courses above the IOO-level.

Please see the Arts and Science Registration Handbook and Timetable for details.

## SCII99HI/YI First Year Seminar

Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course; see page 47.
PSYIOOHI Introductory Psychology 39L A brief introductory survey of psychology as both a biological and social science. Topics will include learning, perception, motivation, cognition, developmental, and social psychology.

Exclusion: PSYIOOYI
Prerequisite:There is no prerequisite for PSYIOOHI. however an OAC/I2U Calculus or equivalent is required to enrol in any
Psychology PROGRAM subsequent to taking PSYIOOHI.

## 200-SERIES COURSES

## Note on Prerequisites:

For non-degree, visiting, and transfer students, you MUST bring a photocopy of your transcript(s) to the Undergraduate Advising Office to provide proof to the Department that you meet ALL of the prerequisites of the course(s) in which you are enrolled in. We will NOT allow you to take any of our courses without the proper prerequisites. Furthermore, University of Toronto at Scarborough and University of Toronto at Mississauga students must also have the proper prerequisites for St. George courses, REGARDLESS if they are a Psychology program student at their college campus.

## PSY20IHI Statistics I <br> 39L, 26T

Fundamentals of descriptive and inferential statistics, including population and sampling distributions, simple association, probability, estimation, and hypothesis testing.
Exclusion: ECO220YI/227YI/GGR270HI/SOC202HI/300YI/ STA $220 \mathrm{HI} / 248 \mathrm{HI} / 250 \mathrm{HI}$
Prerequisite: PSY I00YI/HI/UNI 250YI

## PSY202HI Statistics II 39L, 26T

Fundamentals of statistical analysis of experimental and observational data including linear models, the analysis of variance, a priori contrasts, post-hoc tests, power analysis and effect size calculations. Students are introduced to Minitab, a statistical computer program, with which they complete much of their course work.
Exclusion: ECO220YI/227YI/GGR270YI/SOC300YI/
STA $22 \mathrm{IHI} / 250 \mathrm{HI} / \mathrm{JBS} 229 \mathrm{HI}$
Prerequisite: PSY 20 IHI or equivalent

## PSY2IOHI Introduction to Development 39L

The developmental approach to the study of behaviour with reference to sensorimotor skills, cognition, socialization, personality, and emotional behaviour.
Prerequisite: PSY 100HI/YI/UNI 250YI

## PSY220HI Introduction to Social Psychology 39L

Contemporary areas of research in social psychology: social perception, attitudes, inter-personal relations, and group processes.
Prerequisite: PSY $100 \mathrm{HI} / \mathrm{Y}$ I/UNI 250YI
PSY230HI Personality and Its Transformations 39L Theory and research in personality structure and dynamics: the interaction of cultural and biological factors in the development and expression of individual differences.
Prerequisite: PSY I00YI/HI/UNI 250YI

PSY240HI | Introduction to Abnormal 39L |
| :--- |
| Psychology |

A critical survey of concepts, theories, and the state of research in the area of emotionally disturbed persons and therapeutic methods.
Prerequisite: PSY 100HI/YI/UNI 250YI

## PSY260HI Introduction to Learning

Concepts, theories, and applications of classical and contemporary learning theories, including classical and operant conditioning. Current theories of the physiological and anatomical basis of learning and memory, including synaptic plasticity, the role of the hippocampus, amygdala, frontal cortex and other brain regions. Theories will be related to a practical understanding and applications such as drug addiction, phobias and other disorders.
Prerequisite: PSY $100 \mathrm{HI} / \mathrm{Y}$ I/UNI 250 Y I or NRS Specialist

## PSY270HI Introduction to Cognitive Psychology

An introduction to research and theory on the neural and cognitive architecture of attention, memory, language, thinking and reasoning.
Prerequisite: PSY $100 \mathrm{YI} / \mathrm{HI} / \mathrm{UNI} 250 \mathrm{YI}$ or registered in the Cognitive Science program or NRS Specialist

PSY280HI Introduction to Perception 39L
An introduction to the physiological and psychological bases of vision and audition in humans and lower animals. Visual perception of shape and objects, colour, space, and motion. Auditory perception of simple and complex sounds, and location. Demonstrations supplement the lectures.
Prerequisite: PSY $100 \mathrm{HI} / \mathrm{Y} I / \mathrm{UNI} 250 \mathrm{Y}$ I or registered in the
Cognitive Science program or NRS Specialist
PSY290HI Physiological Psychology I 39L
Provides students with a solid background into the biological basis of behaviour. Animal and human research topics including: functional neuroanatomy, neural signalling, sensory and motor control, motivational systems, and hormones, and emotions.. Exclusion: NRS2OIHI
Prerequisite: PSY $100 \mathrm{HI} / \mathrm{YI} / \mathrm{UNI} 250 \mathrm{YI}$ or enrolled in the
Cognitive Science program, or NRS Specialist

## PSY299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details. Note:This course cannot be used as a PSY program requirement.

## 300-SERIES COURSES

## Note

Where a stated prerequisite is PSY 20 IHI or 202 HI , its equivalent/exclusion is also accepted.

## PSY300HI History of Psychology 39L

Philosophical predecessors and early development of modern psychology; schools of thought and shifting areas of theory and research. History and philosophy of science, in general. Current systems and theories.
Prerequisite: One full course or equivalent in the PSY200- or 300-series

## PSY303HI/ Individual Projects TBA 304HI

An intensive laboratory or applied research project under the supervision of a staff member. Will be approved by the Department only when the student and staff member can show that the project is academically demanding and uniquely suitable for the individual student in terms of the rest of the student's
program. Note: Projects spread out over the full academic year are still only worth a half credit.
Prerequisite: PSY202HI and appropriate background for the proposed work

## PSY305HI The Treatment of Psychological Data

This course emphasizes advanced use of the SAS statistical computer program package for the treatment of psychological data collected in laboratory and field studies. Students analyze sets of data and interpret results. Various methods of ensuring the trustworthiness and accuracy of analysis are discussed. Prerequisite: PSY202HI
PSY309HI Research Specialization: Practicum 39L Research specialists learn about the research opportunities within our department, and develop their skills in the areas of critical thinking, writing and oral presentation. Students also conduct a pre-thesis research project under the supervision of a faculty member. Restricted to Research Specialists.

## PSY3IIHI Social Development <br> 39L

Theory and research in social attachment, aggression, morality, imitation and identification, altruism, and parental discipline, with discussion of methodological issues.
Prerequisite: PSY20IHI, $210 \mathrm{HI} / 220 \mathrm{HI}$
PSY3I2HI Cognitive Development 39L
Examines the developmental of knowledge in fundamental domains such as spatial perception, navigation, object perception, number, language, and theory of mind. Emphasis is placed on current experimental findings, and on how they address centuries-old debates surrounding the origin and nature of human knowledge.
Prerequisite: PSY20IHI, $210 \mathrm{HI} / 270 \mathrm{HI} / 27 \mathrm{IHI} / \mathrm{UNI} 250 \mathrm{Y}$ I

## PSY3I3HI Psychology of Aging 39L

Age changes in sensory and perceptual processes, motor skill, learning, memory, and personality. Theory, methodological problems, social, cultural, and environmental influences which shape behaviour and attitudes to and by the elderly. Prerequisite: PSY20IHI, 210HI

## PSY3I4HI Moral Development

Examination of cognitive-developmental, psychoanalytic, sociobiological, behaviouristic and cultural-anthropological approaches to moral development. Issues covered include definitions of morality, the relationship between moral judgement and action, gender differences and commonalities, and the role of culture in moral development.
Prerequisite: PSY20IHI, 210HI
JLP3I5HI Language Acquisition 39L
Infants' abilities at birth, prelinguistic development, the first words, phonological, syntactic and semantic development. Social variables influencing development of language, bilingualism, models of development, language play. (Given by the
Departments of Linguistics and Psychology)
Prerequisite: One full course equivalent at the 200-level in JAL/
JUP/LIN/PSL/PSY/UNI Cognitive Science

## PSY3I6HI Perceptual Development

The course examines human perceptual development during the first 2-3 years of life. Vision and audition are emphasized. Some topics are: pattern and colour vision, depth perception, infant speech perception.
Prerequisite: PSY20IHI, 280HI
Recommended preparation: PSY2IOHI

## Life Sciences: Psychology

## PSY3I7HI Aging and Social Cognition 39L

Examines theory and research in the social cognitive aspect of aging. Topics range from impression formation and causal attributions to perceptions of control and emotions.
Prerequisite: PSY201HI, 220HI
PSY3I9HI Developmental Laboratory 39L
Provides an overview of developmental psychology methods.
The class conducts an original research project, including design, data collection and analysis, and a written report.
Prerequisite: PSY202HI, 210HI; PSY Specialist or departmental approval
PSY320HI Social Psychology:Attitudes 39L
Intensive study of social attitudes and opinions development, description, measurement, modification, and organization. Prerequisite: PSY20IHI, 220HI
PSY32IHI Cross-Cultural Psychology 39L
Human beings develop within local systems of meaning that define what is good and bad, true and false, sacred and profane, beautiful and ugly, significant and insignificant. These inherited systems of meaning - or cultures - define where we stand as persons in relation to others and provide the grounding for what we come to feel, think, and desire as individuals. This course examines the cultural determination of mindful behaviour.
Prerequisite: PSY20IHI, 220HI, $230 \mathrm{HI} / 240 \mathrm{HI}$

## PSY322HI Intergroup Relations 39L

An in-depth examination of theories and research in intergroup relations; includes topics like stereotyping, prejudice, and discrimination.
Prerequisite: PSY20IHI, 220HI

## PSY323HI Sex Roles and Behaviour

The effect of sex-role expectations on how men and women behave and perceive the world: theories of sex-role development, physiological and cultural determinants of sex differences, power relationships between men and women. Prerequisite: PSY20IHI, $210 \mathrm{HI} / 220 \mathrm{HI} / 230 \mathrm{HI}$

## PSY324HI Social Psychology of Interpersonal Relationships

This course focuses on the social psychology of interpersonal relationships between and among individuals, especially romantic or close relationships and friendships. It surveys what social psychologists have learned about the development, maintenance, disruption or dissolution of personal relationships, as well as current social psychological theories of interpersonal relationships.
Exclusion: PSY420HI taken in 2002-2003 ONLY
Prerequisite: PSY20IHI, 220HI
PSY325HI Self-Consciousness 39L
The distinguishing feature of our species is the reflexivity of our consciousness - the ability to conceive of and interpret ourselves and our experiences. All our higher symbolic capabilities rest upon this foundation. The aim of this multidisciplinary course is to trace out a variety of interpretive frames through which we may look at and better understand self-awareness.
Prerequisite: PSY20IHI, $220 \mathrm{HI}, 230 \mathrm{HI} / 240 \mathrm{HI}$

## PSY326HI Social Cognition

39L
An examination of theory and research on how we make sense of ourselves and our social world. Topics covered include goals,
mood, memory, hypothesis testing, counterfactual thinking, stereotypes, and culture.

## Prerequisite: PSY20IHI, 220HI

## PSY327HI Psychology of the Mass Media 39L

This multidisciplinary course examines how we come to know ourselves and our world, and to feel, judge, and act, through the simulative "mediation" of mass communication. The intent is to provide students with greater understanding of the highly commodified symbolic environment that surrounds them and to which they continually respond and react as audience.
Prerequisite: PSY $20 \mathrm{IHI}, 220 \mathrm{HI}, 230 \mathrm{HI} / 240 \mathrm{HI}$
PSY328HI Psychology and the Law 39L
This course deals with psychological issues in the law, with particular reference to criminal law. It focuses mainly on research that has been done on pretrial publicity, eyewitness testimony, rules of evidence, and other factors that might affect jury decisions.
Prerequisite: PSY20IHI, 220HI

## PSY329HI Social Psychology Laboratory 39L

Illustrates major methodologies within social psychology, such as attitude measurement, observation of small groups, and experiments.
Prerequisite: PSY202HI, 220HI; PSY Specialist or departmental approval

## PSY330HI Psychometrics <br> 39L

Concepts and methods for the measurement of abilities, interests and personality: reliability, validity, interpretation of test scores, norms, observational methods, structured tests, interview, projective techniques. Ethical problems in assessment. Not a course in test administration.
Prerequisite: PSY2OIHI, $230 \mathrm{HI} / 240 \mathrm{HI}$ Recommended preparation: PSY202HI
PSY33IHI Social Psychology of Emotion 39L An in-depth review of the role of emotion in human psychology, with an emphasis on the links between emotion and cognition. Topics include theories of emotion, emotional regulation, expression and experience, the role of emotion in decisionmaking, and the relationship between emotion, motivation and behaviour.
Prerequisite: PSY20IHI, 230HI
PSY332HI Organizational Behaviour 39L
An analysis of the individual, group, and institutional structures and processes that influence behaviour within organizations.
Topics include motivation, leadership, communication, school of management theories, group processes and team work, supervision, and organizational culture.
Prerequisite: PSY20IHI, 220HI
Exclusion: MGT262HI,WDW260HI

## PSY333HI Health Psychology

39L
Examines research evidence concerning the impact of psychological factors on physical health and illness.
Prerequisite: PSY20IHI, 230HI/240HI
PSY334HI Maps of Meaning:The
Architecture of Belief
Culture appears to have a narrative structure. Animal learning and neuropsychological theory helps us understand how narratives might regulate emotion. Threat of broadscale emotional dysregulation motivates individuals to protect their cultures.
Prerequisite: PSY20IHI, $230 \mathrm{HI} / 240 \mathrm{HI}$

PSY335HI Environmental Psychology 39L
An examination of the interrelationship of humans and their natural and built environments, focusing on psychological and sociocultural factors. Topics include: the self in relation to nature; the perception of environmental change; the effects of natural and built environments on stress and psychological health; understanding consumerism and environmentalism; and the relationship between individuals' experience (i.e., cognitions, emotions, and values) and action relating to environmental issues.
Prerequisite: PSY20IHI, 220HI

## PSY336HI Positive Psychology <br> $39 L$

A review of the field of positive psychology, which is the study of fulfillment and personal growth. The focus is on empirical research regarding the development of healthy, productive, and resilient individuals. Topics include: subjective well-being, optimism, flow experiences, self-control and emotional intelligence, social support and empathy.
Prerequisite: PSY2OIHI, $220 \mathrm{HI} / 230 \mathrm{HI} / 240 \mathrm{HI}$

## PSY339HI Individual Differences Laboratory

Introduction to methods involved in individual differences or personality research. Group and individual projects focus on assessment of individual difference characteristics and on experimentation including such characteristics.
Prerequisite: PSY202HI, $230 \mathrm{HI} / 240 \mathrm{HI}$; PSY Specialist or departmental approval
PSY34IHI Psychopathologies of Childhood 39L
This course focuses on cognitive and neuropsychological aspects of neurodevelopmental and psychiatric disorders in children from clinical and theoretical perspectives.
Prerequisite: PSY20IHI, $210 \mathrm{HI} / 240 \mathrm{HI}$, one further
PSY200/300-series full course or equivalent

## PSY342HI

Cognition and
26S, I3T Psychopathology
Work in psychological disorders has increasingly used the theories and methodologies of cognitive psychology to guide research. This course will examine accounts of clinical disorders informed by cognitive experimental psychology, with emphasis on recent work in affective disorders.
Prerequisite: PSY20IHI, $240 \mathrm{HI} / 270 \mathrm{HI}$

## PSY343HI Theories of Psychopathology and Psychotherapy

Examines various theories of how personality functioning may become impaired and corresponding psychotherapeutic interventions. Emphasis on empirical assessment of personality dysfunction and therapy effectiveness.
Prerequisite: PSY20IHI, $230 \mathrm{HI} / 240 \mathrm{HI}$
PSY362HI Animal Cognition
39L
The study of memory, representation, concept learning, and other cognitive processes in non-human animals.
Prerequisite: PSY20IHI, 260HI
PSY369HI Conditioning and Learning 39L Laboratory
Provides hands on experience with some widely used preparations and procedures for studying learning and memory in animals. Reading and writing research in this area are emphasized. Experiments with rats and pigeons are conducted, initially under close supervision.
Prerequisite: PSY202HI, 260HI; PSY Specialist or departmental approval

## PSY370HI Thinking and Reasoning <br> 39L

Problem-solving as a model of directed thinking; conceptual behaviour and mental representation; induction, deduction and learning; probabilistic reasoning; creative thinking and complex problem solving.
Prerequisite: PSY 270HI/UNI 250YI
PSY37IHI Higher Cognitive Processes 39L
This course covers selected topics pertaining to higher cognitive processes including expertise, consciousness, creativity, and human and artificial intelligence.

## Prerequisite: PSY270HI/370HI/UNI 250YI

PSY372HI Human Memory
39L
Current theories and data on human memory: processes involved in encoding, storage, and retrieval.
Prerequisite: PSY20IHI, 270HI/UNI 250YI

## PSY373HI Social Cognitive Neuroscience 39L

Social cognitive neuroscience is an emerging interdisciplinary field that seeks to integrate theories of social psychology and cognitive neuroscience to understand behavior at three fundamentally interrelated levels of analysis (social, cognitive, and neural). Topics such as self-regulation, cooperation, attitudes, and prejudice will be examined.
Prerequisite: PSY $20 \mathrm{IHI}, 220 \mathrm{HI}, 270 \mathrm{HI} / 290 \mathrm{HI}$
Recommended Preparation: PSY 326HI

## JLP374HI Psychology of Language 39L

Human and other animal communication, structure of human language, word meaning and semantic memory, psychological studies of syntax, bilingualism, language and thought, language errors and disorders. (Given by the Departments of Linguistics and Psychology)
Prerequisite: One 200-series full course or equivalent in JAL/
JUP/LIN/PSY/PSL/UNI Cognitive Science

## PSY375HI Attention and Performance 39L

Visual attention; attentional selection for object recognition, feature integration, and action; movements of attention; eyehand coordination, eye movements, limb movements. Models of attention and motor control.
Prerequisite: PSY20IHI, $270 \mathrm{HI} / 280 \mathrm{HI} / \mathrm{UNI} 250 \mathrm{YI}$

## PSY378HI Engineering Psychology

39L
The application of our knowledge of human information processing capabilities to improve human-machine systems design in a number of engineering environments including aviation, computer software, human-computer interaction, and nuclear power plants.
Prerequisite: PSY20IHI, 270HI/280HI/UNI 250YI
Recommended preparation: PSY202HI
PSY379HI Memory and Learning Laboratory 39P Exercises and demonstrations, followed by experiments done jointly with other members of the class, and a final individual research project, in the broad area of human learning and memory.
Prerequisite: PSY202HI, 270HI/UNI 250YI; PSY specialist or departmental approval

## PSY380HI Vision Science <br> 39L

Integrates psychology, neuroscience, and computer science approaches to the study of vision science. Topics include: spatial vision; perception of objects, function, and category; motion perception; visual attention, memory, and imagery; and consciousness. Demonstrations/in-class experiments supplement
lectures and readings. Important class for psychology, cognitive science, and neuroscience students. Prerequisite: PSY20IHI/MATI35YI, PSY 280HI

## PSY389HI Perception Laboratory

Examination of issues and methods in perception research. Students conduct supervised research projects, and read, critique, and write research articles.
Prerequisite: PSY202HI, 280HI; PSY Specialist or departmental approval
PSY390HI Behavioural Genetics 39L
An examination of how genes contribute to the production of behaviour, either as structural elements or direct participants in behavioural regulation. Covers molecular genetics, natural selection and genetic methods followed by specific examples of congenic disorders that affect behaviour and studies of "normal" behaviours in human and animal models.
Prerequisite: PSY20IHI, 290HI/NRS201HI
PSY392HI Neurobiology of Learning and Memory
Understanding the complexities of how the mammalian nervous system acquires and stores information and how it transforms this information into appropriate behavior is fundamentally important to our understanding of both animal and human behavior. This course explores empirical and theoretical contributions to our understanding of the neural basis of learning and memory.
Prerequisite: PSY20IHI, 290HI/NRS20IHI
PSY393HI Cognitive Neuroscience 39L
The use of higher cortical functions to study cognitive processes in humans and other primates. Some topics to be covered: hemispheric specialization, emotion and the cerebral hemispheres, organization of language after brain damage, amnesia, aging.
Prerequisite: PSY20IHI, 270HI/290HI/NRS20IHI
PSY394HI Physiology and Psychology of Emotion
The role of brain and body in expression and experience of emotion in humans, considered theoretically and through the experimental, physiological and clinical literatures.
Prerequisite: PSY20IHI, $270 \mathrm{HI} / 290 \mathrm{HI} / \mathrm{NRS} 20 \mathrm{IHI}$

## PSY396HI Neurochemical Basis

 of BehaviourThe functional relevance of neurotransmitters, with particular emphasis on their role in mediating behaviour.
Prerequisite: PSY20IHI, 290HI/NRS20IHI
Exclusion: PCL 475YI
PSY397HI Biological Rhythms 26L, I3T
Daily, monthly, annual and other rhythms and methods of measuring them. Behavioural and physiological aspects of biological clocks. The importance of rhythms in experimental design, in research on brain function, in affective disorders, and the use animals make of rhythms in migration and other behaviours.
Prerequisite: BIOI50YI/PSYI00HIYI, one full or two 200series half-courses in the Sciences
Exclusion: JZP326HI

PSY399HI Psychobiology Laboratory 39L
An introduction to surgical and experimental methods and research issues in physiological psychology, including anatomical and neurobiological methods and behavioural and genetic analysis. Concentration on innate and learned mechanisms that influence the display of specific behaviours.
Exclusion: NRS302HI
Prerequisite: PSY202HI,290HI/NRS20IHI; PSY specialist or departmental approval

## PSY398H0/ Independent Experiential Study Project 399Y0 <br> An instructor-supervised group project in an off-campus setting. See page 47 for details.

## 400-Series Courses

PSY400YI Research Specialization:Thesis
TBA
An individual project done under the direction of a staff
member. Lecture and seminar presentations of proposals in the Fall Session.
Prerequisite: Enrolment in PSY Research Specialist program, PSY309HI, PSY3*9HI (PSY lab course)

## PSY40IHI A Biobehavioural Approach to 26L Psychological Theories and Applications

In presenting and arguing for this approach the topics covered are sex differences in cognition, and the psychophysiological topics of biofeedback and lie detection. Students are expected to critically evaluate the approach, and argue for their own.
Prerequisite: PSY20IHI and two additional courses at the 200level
PSY402HI/ Psychology Seminar 26S
403HI/

## 404HI

Examination in depth of specific topics in psychology. These seminars vary from year to year in terms of the number given, the topics, and the restrictions on enrollment. Consult the departmental Calendar for details.

## PSY409HI Research Specialization: Theoretical Foundations

This seminar addresses the central theoretical issues that structure contemporary research in each of the major areas of psychology. The aim is to provide an informal overview of the field as a whole.
Prerequisite: Enrolment in the PSY Research Specialist program, PSY 309HI
PSY4IOHI

## Developmental Psychology

## Seminar

Examination in depth of a limited topic within developmental psychology. Content in any given year depends on instructor.
Prerequisite: PSY202HI, 210 HI ; PSY Specialist or permission of department
PSY420HI Social Psychology Seminar 26S
Examination in depth of a limited topic within social psychology.
Content in any given year depends on instructor.
Prerequisite: PSY202HI, 220HI; PSY Specialist or permission of department

## PSY430HI Personality Seminar

 26SExamination in depth of a limited topic within the area of personality. Content in any given year depends on instructor. Prerequisite: PSY202HI, 230HI/240HI, PSY Specialist or permission of department

## PSY440HI Abnormal Psychology Seminar

Examination in depth of a limited topic within abnormal
psychology. Content in any given year depends on instructor.
Prerequisite: PSY202HI, 230HI/240HI, PSY Specialist or permission of department

## PSY460HI Learning Seminar 26S

Examination in depth of a limited topic in learning. Content in any given year depends on instructor.
Prerequisite: PSY260HI; an additional 300-level half-course in the 350 -, 360 -, or 370 -series or permission of instructor; PSY Specialist or permission of department

## PSY470HI Memory Seminar

Examination in depth of limited topics within the area of memory. Content in any given year depends on instructor. Prerequisite: PSY270HI/UNI 250YI, PSY Specialist or permission of department

## JLP47IHI Advanced Psycholinguistics 26S

Seminar in advanced topics in psycholinguistics. Content varies from year to year. (Given by the Departments of Linguistics and Psychology)
Prerequisite: JLP374HI, LIN322HI/33IHI
PSY47IHI Cognition Seminar 26S
Examination in depth of a limited topic in cognition. Content in any given year depends on instructor.
Prerequisite: (PSY270HI/280HI), (PSY $37 \mathrm{IHI} / 375 \mathrm{HI} / 380 \mathrm{HI}$ ),
PSY Specialist or permission of department

## PSY480HI Seminar in Vision Science 26S

An in-depth examination of current issues in vision science (e.g. perceptual organization, object and face recognition, motion perception). Emphasis is on the psychological perspective, but integrates physiological and computational perspectives as well. Content in any given year depends on instructor.
Prerequisite: PSY270HI, PSY280HI, $37 * H / 38^{* H}$, PSY 393 HI, PSY Specialist or permission of department
PSY490HI Brain Activity \& Behaviour Seminar 39S
The relationship between behaviour and the activity of neurons; examples from sensory, motor, motivational, and higher cortical systems. Electrical stimulation and recording techniques. Prerequisite: PSY202HI, 290HI/NRS20IHI

PSY497HI | Advanced Topics in |
| :---: |
| Biological Rhythms |
| (formerly JZP428HI) |

Circadian rhythms with emphasis on non-photic entrainment
and phase shifting of rhythms by behaviour (e.g., social
interactions, or becoming active). Properties and physiological
mechanisms for non-photic effects and comparisons with those
for photic effects. Seminars and readings of original papers.
Emphasis on basic principles, but possible applications will also
be discussed.
Prerequisite: JZP326HI/PSY397HI
Exclusion: JZP428HI

## Life Sciences: Zoology

The departments of Botany and Zoology were disestablished as of July I, 2006, and its faculty, programs, and courses have become part of the new departments of Cell \& Systems Biology (CSB), and Ecology \& Evolutionary Biology (EEB). The Biology, Botany, and Zoology programs are listed under Biology Please see the sections for CSB and EEB in this Calendar for information concerning their programs and courses.

## Joint Programs (see Biology)

Biology
Botany
Zoology

## Cell \& Systems Biology Programs

Cell Biology
Comparative Animal Physiology
Developmental Biology
Molecular Plant Biology

## Ecology \& Evolutionary Biology Programs

Behaviour
Ecology
Ecology \& Evolutionary Biology
Environmental Biology
Evolutionary Biology

## Faculty

Professors Emeriti
B. Brainerd, MS, PhD
J.K. Chambers, MA, PhD
H.E. Rogers, M Ed, MA, PhD
P.A. Reich, MS, PhD
T.Venkatacharya, MA, Vyakarana Siromani
R.Wardhaugh, MA, PhD

Professor and Chair of the Department TBA
Associate Chair and Graduate Coordinator TBA
Undergraduate Coordinator
TBA

## Professors

E.A. Cowper, AM, PhD
B.E. Dresher, BA, PhD
D. Massam, MA, PhD
K.D. Rice, MA, PhD

## Associate Professors

A. Johns, MA, PhD
A.T. Pérez-Leroux, MA, PhD
R. Smyth, M Sc, Ph D
S.A. Tagliamonte, MA, PhD

Assistant Professor
M.C. Cuervo, MA, PhD
M. Ippolito, MA, PhD
Y. Kang, PhD

## Adjunct Professor

M.L. Chasin, M Sc, AuD

Linguistics can trace its roots back to the ancient Sanskrit grammarians, and the study of language is probably as old as language itself. However, the twentieth century has produced an explosion in the scientific study of language. As our understanding of the nature and structure of human language develops, linguistics is becoming relevant to many other areas of research such as Cognitive Science, Artificial Intelligence, Speech-Language Pathology, Audiology, Psychology, and Philosophy.

On its own, linguistics represents an invaluable key to the nature of the mind and the diverse elements of human culture; as a tool, linguistics is unmatched in preparing one for the learning and teaching of languages and for integrating language with technology.

The Department offers programs in Linguistics, as well as combined programs with language departments and with Philosophy, as shown in the Programs of Study.

Part-time students should note that most of the summer and evening courses available to them are offered on a rotating basis only. Consequently, students wishing to take such courses should enroll in them at the earliest opportunity after completing the necessary prerequisites.

In addition to the undergraduate curriculum within the
Department of Linguistics, there are courses relating to linguistics offered in other departments such as the language departments, Anthropology, Computer Science, and Philosophy, and in the Cognitive Science and Artificial Intelligence program.

Students seeking counselling and information should contact the Undergraduate Coordinator, TBA, (416-978-I760).

## Linguistics Programs

Enrolment in the Linguistics programs requires the completion of four courses; no minimum GPA required.

## Linguistics (Arts program)

## Specialist program:

(I2 full courses or their equivalent)
First Year:
LIN IOOYI
Second Year:
LIN $228 \mathrm{HI}, 229 \mathrm{HI}, 23 \mathrm{IHI}, 232 \mathrm{HI}$
Second, Third and Fourth Years:
I. Two years of study or its equivalent of one non-Germanic, non-Romance language in courses using the spoken language (courses must be approved by the Undergraduate Co-ordinator)
2. $\mathrm{LIN} 322 \mathrm{HI}, 33 \mathrm{IHI}, \mathrm{JAL} 40 \mathrm{IHI}$
3. Further courses (excluding LIN $200 \mathrm{HI}, 265 \mathrm{YI}$, and 365 YI ) to bring the total number of courses up to 12 FCE. These courses must be LIN/JAL/JFL/JLP/JLS courses except that up to one full course may be chosen from the following list (please consult the Department of Linguistics): ANT 329YI, $425 \mathrm{HI}, 427 \mathrm{HI} ; \mathrm{CSC} 384 \mathrm{HI}, 485 \mathrm{HI}$; FIN 220 HI ; FRE 272 YI , $273 \mathrm{YI}, 376 \mathrm{HI}, 378 \mathrm{HI}, 384 \mathrm{HI}, 386 \mathrm{HI}, 387 \mathrm{HI}, 389 \mathrm{HI}$, $47 \mathrm{HI}, 479 \mathrm{HI}, 489 \mathrm{HI}$; GER $400 \mathrm{HI}, 426 \mathrm{HI}$; GGR368HI; HPS 250 HI ; ITA $360 \mathrm{HI}, 36 \mathrm{IHI}, 363 \mathrm{HI}, 364 \mathrm{HI}, 430 \mathrm{HI}$; UNI $250 \mathrm{YI} ;$ PHL $210 \mathrm{YI}, 245 \mathrm{HI}, 325 \mathrm{HI}, 326 \mathrm{HI}, 340 \mathrm{HI} ; 342 \mathrm{HI}$, $345 \mathrm{HI}, 35 \mathrm{IHI}, 355 \mathrm{HI}, 45 \mathrm{IHI} ; S L A ~ 430 \mathrm{Y}, 438 \mathrm{HI}, 439 \mathrm{HI}$, $452 \mathrm{YI}, 456 \mathrm{HI} ;$ SPA $322 \mathrm{HI}, 42 \mathrm{IHI}, 422 \mathrm{HI}, 425 \mathrm{HI}$
4. Of the courses chosen in 3 above, at least 2.5 FCE must be at the 300+ level and 0.5 at the 400 -level

## Major program:

(7 full courses or their equivalent)
First Year:
LIN IOOYI
Second Year:
LIN $228 \mathrm{HI}, 229 \mathrm{HI}, 23 \mathrm{IHI}, 232 \mathrm{HI}$
Third and Fourth Years:
Four FCE's in LIN/JAL/JFL/JLP/JLS (excluding LIN 200HI) at least two of which must be at the $300+$ level

## Minor program:

(4 full courses or their equivalent)
. LIN I00YI
2. Three FCE's in LIN/JAL/JFL/JLP/JLS (excluding LIN 200HI) at least one of which must be at the $300+$ level

## Linguistics

## Linguistics and Languages (Arts program)

Consult the Department of Linguistics and of the Language chosen.

## Combined Specialist program:

(13 or 14 courses or their equivalent)
Linguistics
The Linguistics component of all these Programs is as follows:
First Year:
LIN IOOYI
Second Year:
LIN $228 \mathrm{HI}, 229 \mathrm{HI}, 23 \mathrm{IHI}, 232 \mathrm{HI}$
Third and Fourth Years:
Four FCE's in LIN/JAL/JFL/JLP/JLS (excluding LIN 200HI), at least I of which must be at the 400 level, and 2 at the 300+ level (LIN 362 HI specially recommended)

The Language component is six or seven courses or their equivalent in the language chosen as follows:

## English

(7 courses)
Only one 100 -series ENG/JEF course may be counted toward program requirements. ENGIOOHI, ENGI85YI, HUMI99YI JEM204HI, JUM204HI may not be counted.
Seven ENG/JEF courses or their equivalent, fulfilling the following requirements:
I. ENG285HI \& ENG385HI
2. At least I full-course equivalent from Group 2 (Canadian and Indigenous North American Literatures)
3. At least . $\mathbf{5}$ full-course equivalent from Group 3 (American and Transnational Literatures)
4. At least 2 full-course equivalents from Group 4 (British Literature to the 19th Century), ENG240YI and ENG300YI specially recommended
5. At least . 5 full-course equivalent from Group 5 (Literature Since the 18th Century)

## French

(7 courses or their equivalent)
Same as the Major program in French Language and French Linguistics. For details, please see the Department of French program listings.

## German

(6 full courses or their equivalent)
First Year:
GER $100 \mathrm{YI} / 200 \mathrm{YI} /(200 \mathrm{HI}, 20 \mathrm{HI})$
Second Year:
GER $200 \mathrm{YI} /(200 \mathrm{HI}, 20 \mathrm{IHI}) ; 300 \mathrm{YI} /(300 \mathrm{HI}, 30 \mathrm{IHI})$
Third and Fourth Years:
I. GER $300 \mathrm{YI} /(300 \mathrm{HI}, 30 \mathrm{IHI}, 400 \mathrm{HI})$
2. The reminder of the six courses or equivalent must have a GER designator.

## Italian

(7 courses or their equivalent)
First Year:
ITA IOOYI/IOIYI/I02YI/(I33HI, I34HI)/I52Y
Second Year:
ITA 250YI/25IYI/252YI/253YI

Third and Fourth Years:
I. ITA $360 \mathrm{HI}, 430 \mathrm{HI}$
2. 4.0 additional FCE ITA language and linguistics courses at the 300/400-levels

## Spanish and Portuguese

(6.5 courses or their equivalent)

Spanish and Portuguese may also be taken in this Program. Interested students should consult the Department

Slavic Languages
Slavic Languages may also be taken in this Program. Interested students should consult the Department.

## Linguistics and Computing (Science program)

## Specialist program:

(I5.5 full courses or their equivalent with at least one full course at the 400-level)

Linguistics Component (7 FCE's)
First Year
LINIOOYI
Second Year
LIN 228HI, 229HI, 23IHI, 232HI
Higher Years
I. 2.5 FCE's chosen from $\mathrm{LIN} 322 \mathrm{HI}, 323 \mathrm{HI}, 33 \mathrm{IHI}, 34 \mathrm{IHI}$, $48 \mathrm{IHI} ; \mathrm{JLP} 3 \mathrm{I} 5 \mathrm{HI}, 374 \mathrm{HI}$
2. I.5 additional FCE's in LIN/JAL/JFL/JLP/JLS (excluding LIN200HI) at least 1.0 of which must be at the $300+$ level
Recommended preparation: At least one year's study (or equivalent) at university level of a non-English language

## Computing Component (7.5 FCE's)

First Year
CSC $165 \mathrm{HI} / 240 \mathrm{HI}(108 \mathrm{HI}, 148 \mathrm{HI}) / 150 \mathrm{HI} ;$ MAT $137 \mathrm{YI} / I 57 \mathrm{Y}$ I
Second Year
CSC $207 \mathrm{HI}, 236 \mathrm{HI} / 240 \mathrm{HI}, 263 \mathrm{HI} / 265 \mathrm{HI}$; MAT 223 HI ; STA $247 \mathrm{HI} / 257 \mathrm{HI}$
Higher Years
I. CSC $258 \mathrm{HI}, 324 \mathrm{HI}, 40 \mathrm{IHI}, 485 \mathrm{HI}$
2. I. 0 additional FCE's in CSC, chosen from: CSC 343 HI , $363 \mathrm{HI} / 365 \mathrm{HI}, 373 \mathrm{HI} / 375 \mathrm{HI}, 384 \mathrm{HI},-428 \mathrm{HI}, 486 \mathrm{HI}$
NOTE: Students in this program must also qualify for, and be registered in the Major program in Computer Science

## Linguistics and Philosophy (Arts program)

Consult Departments of Philosophy and Linguistics.

## Specialist program:

(14 full courses or their equivalent with one full course at the 400-level)

## Linguistics

(7 courses)
First Year:
LIN IOOYI
Second Year:
LIN $228 \mathrm{HI}, 229 \mathrm{HI}, 23 \mathrm{IHI}, 232 \mathrm{HI}$
Third and Fourth Years:
Four FCE's in LIN/JA/JFLL/JLP/JLS (excluding LIN 200HI); at least I must be at the 400 level and 2 must be at the 300+ level (LIN 33IHI, 48IHI specially recommended)

## 310

## Philosophy

(7 courses)
I. $\mathrm{PHL} 2 \mathrm{IOYI}, 245 \mathrm{HI}, 35 \mathrm{IHI}$
2. Five additional PHL courses, at least three at the 300-level. The following courses are particularly recommended: HPS $250 \mathrm{HI} ; \mathrm{UNI} 250 \mathrm{YI} ; \mathrm{PHL} 325 \mathrm{HI}, 326 \mathrm{HI}, 340 \mathrm{HI}, 342 \mathrm{HI}$, $345 \mathrm{HI}, 347 \mathrm{HI}, 35 \mathrm{IHI}, 355 \mathrm{HI}, 45 \mathrm{IHI}$

## Linguistics Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), LIN courses are classified as HUMANITIES or SOCIAL SCIENCE courses; check individual course listings below.

## HUMI 99HI/YI First Year Seminar

Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a Humanities course; see page 47..

## LINIOOYI Introduction to General 52L, 26T

 LinguisticsLectures on fundamental principles with illustrations from English and from a broad spectrum of other languages. Practice in elementary analytic techniques.
This is a Humanities course
LIN200HI Introduction to Language 26L I3T A general-interest course on language. Possible topics include: the structure of language; how language changes over time, the social and psychological aspects of language, language and culture, the origin of language, writing systems, and language acquisition. (This course cannot be used as an entrance to programs in linguistics, and cannot be used be used as a prerequisite to any linguistics courses unless otherwise indicated.)
Exclusion: LINIOOYI
This is a Humanities course

## LIN20IHI Canadian English

A study of the structures of several dialects of English spoken in Canada, and of their history and affiliations. (Not offered every year)
Prerequisite: LIN $100 \mathrm{YI} / 200 \mathrm{HI}$
This is a Humanities course

## LIN203HI English Words

English has a rich vocabulary. We will learn how it has developed over time, and investigate aspects of the meaning and pronunciation of words. Most of all, we will study how words are put together, so that students will be able to recognize and analyze unfamiliar words.
Exclusion: LIN202YI
This is a Humanities course

## LIN204HI English Grammar

How the English language works: students analyze a wide variety of English grammatical structures and learn how they vary across dialects and change through time.
Exclusion: LIN202YI
This is a Humanities course
LIN205HI East Asian Languages and English as English comes into contact with three major East Asian

Languages (Chinese, Japanese, and Korean). Topics include a comparative introduction to the basic structures of the languages, writing systems, transformations English words undergo when borrowed into these Asian languages, and typical mistakes made by ESL speakers of East Asian linguistic background.
Exclusion: HUMI99HI/YIY, LO24I (2005-2006)
This is a Humanities course
LIN228HI Phonetics
26L, I3T
Investigation of the sounds most commonly used in languages
from an articulatory and acoustic point of view, with practice in their recognition and production.
Recommended preparation: LINI 00 Y I/200HI
This is a Humanities course
LIN229HI Sound Patterns in Language 26L, I3T
The nature and organization of phonological systems, with practical work in analysis.
Prerequisite: LINIOOYI, 228HI
This is a Humanities course
LIN23IHI Morphological Patterns in 26L, I3T Language
The nature and organization of morphological systems, with practical work in analysis.
Prerequisite: LINIOOYI
This is a Humanities course
LIN232HI $\begin{aligned} & \text { Syntactic } P \text { Patterns in } \\ & \text { Language }\end{aligned} \quad$ I3T Language
The nature and organization of syntactic systems; their relation to semantic systems and the linguistic organization of discourse; practical work in analysis.
Prerequisite: LINIOOYI
This is a Humanities course
LIN24IHI Introduction to Semantics 26L, I3T
An introduction to meaning within linguistics and the
interpretation of language in context. Topics include logical and semantic relations, pragmatic concepts such as presupposition and implicature, the nature of thematic roles, quantifiers and scope relations, the expressions of temporal and modal relations in natural language.
Prerequisite: LINIOOYI
This is a Humanities course
LIN256HI Sociolinguistic Patterns in 26L, I3T Language
An introduction to linguistic variation and its social implications, especially the quantitative study of phonological and grammatical features and their correlations with age, sex, ethnicity, and other social variables.
Prerequisite: LINIOOYI
This is a Humanities or Social Science course.
LIN299YI Research Opportunity Program
Credit course for supervised participation in faculty research project. See page 47 for details.
LIN305HI Quantitative Methods in Linguistics 39L
Principles of research design, data collection, and a wide variety of statistical techniques for research in various subfields of linguistics.
Prerequisite: LINIOOYI and one full course in LIN/JAL/JFL/JLP
This is a Social Science course

## Linguistics

## LIN306HI Language Diversity and <br> Language Universals

This course examines cross-linguistic typological features found in the languages of the world. Special attention is given to describing morphological and syntactic patterns found crosslinguistically. The goal of the course is to draw on the range of variation in order to uncover language universals. (Not offered every year)
Prerequisite: LIN23IHI, 232HI
This is a Humanities course

## JLP3I5HI Language Acquisition 39L

Infants' abilities at birth, prelinguistic development, the first words, phonological, syntactic and semantic development. Social variables influencing development of language, bilingualism,
models of development, language play. (Given by the
Departments of Linguistics and Psychology)
Prerequisite: One full course equivalent at the 200-level in LIN/
JAL/JUP/PSL/PSY/UNI Cognitive Science

## This is a Science course

## LIN322HI Phonological Theory 39L

Basic issues in current phonological theory. Problems focusing on analysis and theory. (Students who want to pursue graduate studies in linguistics are strongly advised to include this course in their program.)
Prerequisite: LIN229HI
This is a Humanities course
LIN323HI Acoustic Phonetics
26L
Introduction to acoustics, with particular reference to the vocal tract; acoustic properties of speech; instrumental techniques for speech analysis.
Exclusion: LIN32IHI
Prerequisite: LIN228HI
This is a Science course
JAL328HI Writing Systems 26L
Introduction to writing systems: their historical development, their relationship to language, and their role in culture and society. (Given by the Departments of Anthropology and Linguistics)
Prerequisite: ANTIOOYI/LINI00YI/200HI
This is a Social Science course

## LIN33IHI Syntactic Theory

An introduction to the foundations and formal framework of current generative grammar, concentrating on Chomsky's Minimalist theory. (Students who want to pursue graduate studies in linguistics are strongly advised to include this course in their program.)
Prerequisite: LIN232HI
This is a Humanities course

## LIN34IHI Semantic Theory

The study of natural language semantics and the relation between interpretation and syntactic structure. Topics include predication and quantification, scope and anaphora, problems of discourse analysis, the interpretation of different types of pronouns, and ellipsis.
Prerequisite: LIN232HI
This is a Humanities course

JAL355HI Language and Gender 26L
Ways in which women and men differ in their use of language and in their behaviour in conversational interaction; ways in which language reflects cultural beliefs about women and men. (Given by the Departments of Anthropology and Linguistics)
Prerequisite:Two full course equivalents at the 200-level in LIN/ ANT/JAL/SOC
Recommended preparation:ANT204YI/JAL253HI/254HI/
NEW26IYI/SOC200YI/ 202YI/2I4YI/2I5YI
This is a Social Science course

## LIN356HI Language Variation and Change:

The theory and practice of sociolinguistics. The interrelationship between language and society from the perspective of collecting, organizing, and analyzing patterns in natural speech data, including field methods and quantitative methods for correlating linguistic and social variables.
Prerequisite: LIN256HI
This is a Humanities or Social Science course
LIN362HI Historical Linguistics 39L
An introduction to diachronic linguistics. Theories of language change; the comparative method, internal reconstruction, linguistic geography, the origin of languages; language death. (Not offered every year)
Prerequisite: LIN229HI
This is a Humanities course

## JLP374HI Psychology of Language 39L

Experimental approaches to the comprehension and production of languages. Topics include perception of speech sounds, storage and retrieval of words from the mental lexicon, processing of grammatical information, discourse comprehension and memory, models of language production, and the role of cognitive and perceptual systems. (Given by the Departments of Linguistics and Psychology)
Prerequisite: One full course equivalent at the 200-level in LIN/
JAL/JUP/PSY/PSL/UNI Cognitive Science
This is a Science course
LIN398H0/ Independent Experiential Study Project

## 399Y0

An instructor-supervised group project in an off-campus setting. See page 47 for details.
JAL40IHI Field Linguistics 52P
Practice in language analysis based on elicited data from a native speaker of a foreign language, emphasizing procedures and techniques. (Given by the Departments of Anthropology and Linguistics) (Students who want to pursue graduate studies in linguistics are strongly advised to include this course in their program.)
Prerequisite: Completion of LIN23IHI, 322HI, 33IHI, except for students in their final year where $\operatorname{LIN} 33 \mathrm{IH} / 332 \mathrm{HI}$ is a corequisite.
This is a Social Science course
LIN409HI Structure of a Specific Language 26L
Topics may include: the phonological, morphological, syntactic, and semantic systems; the writing system; a brief diachronic sketch; variation and sociolinguistic aspects. (Not offered every year).
Prerequisite: LIN228HI, 229HI, 23IHI, 232HI + I FCE at the 300+ level in LIN/JAL/JFL/JLP/JLS

## LIN423HI Phonetic Analysis

26L
Theoretical discussion of the acoustic correlates of various types of sounds found in language. Practical experience in the acoustic analysis of speech. (Not offered every year)
Exclusion: LIN32IHI
Prerequisite: LIN323HI
This is a Humanities course

## LIN432HI Advanced Morphology: <br> Morphosyntax

Current research involving morphology, including the role of morphology in the grammar, the nature of inflectional paradigms, affixes affecting grammatical relations. Each year one topic will be a special focus and will be dealt with at length.
(Not offered every year)
Prerequisite: LIN23IHI
Co-requisite: LIN33IHI
This is a Humanities course
LIN45IHI Urban Dialectology 26L
Ways in which urban sub-cultures differ in their use of language. How speakers' dialects reflect their ethnicity, group affiliation, and other social categories. Practice in dialect analysis based on data from the speech community, emphasizing procedures and techniques.
Prerequisite: LIN256HI plus 2 FCE at the 200+ level in LIN/ JAL/JLP
This is a Humanities or Social Science course.
LIN458HI Revitalizing Languages 26L
A study of language endangerment and language revitalization efforts, focusing on Aboriginal languages of Canada. Topics include language classification and a survey of major features of the languages, what it means for a language to be endangered, the factors that contribute to language shift, and efforts to reverse language shift, including discussion of literacy and dictionaries.
Prerequisites: LINIOOYIY plus at least two full course equivalents drawn from LIN/JAL.
This is a Humanities or Social Science course.
JLP47IHI Advanced Psycholinguistics 39L
Seminar in advanced topics in psycholinguistics. Content will vary from year to year. (Given by the Departments of Linguistics and Psychology) (Not offered every year) Prerequisite:JLP374HI, LIN322HI/33IHI
This is a Science course
JLS474HI Disorders of Speech and Language 39L
Normal and deviant development of speech and language; a survey of the disorders of human communication; an overview of intervention for disorders of speech, voice, language, swallowing and hearing; the effects of human communication handicaps on the individual, family, and community; theoretical and philosophical aspects of disordered communication. (Given by the Departments of Linguistics and Speech Pathology) Prerequisite: JLP3I5HI/374HI

## This is a Science course

JFL477HI Issues in French and Linguistics I 26S
An advanced seminar on issues of current theoretical relevance in linguistics with special reference to French. This course is taught in English. (Not offered every year). Prerequisite: Any 300+series FRE or LIN course

JFL478HI Issues in French and Linguistics II 26S
An advanced seminar on issues of current theoretical relevance in linguistics with special reference to French. This course is taught in English. (Not offered every year).
Prerequisite: Any 300+series FRE or LIN course
LIN479HI Current Issues in Linguistics 26S
An advanced seminar in current issues of theoretical relevance.
Prerequisite: LIN228HI, 229HI, $23 \mathrm{IHI}, 232 \mathrm{HI}+\mathrm{I}$ FCE at the
300+ level in LIN/JAL/JFL/JLP/JLS
This is a Humanities course

## LIN480HI History of Linguistics

26L
A survey of linguistic thought from Panini to the present,
focussing primarily on the 20th century. Three approaches are
used: linguistic schools, major personalities and their works, and concepts. (Not offered every year)
Prerequisite: LINIOOYI
Recommended preparation: Reading knowledge of another
European language
This is a Humanities course
LIN48IHI Introduction to Analysis 39L and Argumentation
Argumentation, practice in constructing and evaluating
hypotheses, and critical evaluation of representative articles.
Emphasis on the structure of arguments rather than on the
analysis of a particular language.
Prerequisite: LIN322HI/33IHI
This is a Humanities course
LIN495YI/ Individual Project
TBA

## 497YI

A research or reading project undertaken by the student under the supervision of a staff member. Open only when a faculty member is willing and available to supervise.
Prerequisite: Permission of the Department
LIN496HI/ Individual Project
TBA
498HI/
499 HI
A research or reading project undertaken by the student under the supervision of a staff member. Open only when a faculty member is willing and available to supervise.
Prerequisite: Permission of the Department

## Literary Studies: see Victoria College

Macedonian: See Slavic Languages and Literatures

## A Collaborative Program of the Faculty of Arts \& Science and the Faculty of Applied Science \& Engineering

Materials science is the study of the structure, properties and applications of all types of materials including metals, ceramics, glasses and polymers. Currently many exciting scientific developments are in the materials field. Notable advances have been made recently in studies of amorphous metals, the quasicrystalline state, liquid crystals, semiconductors, nanostructured materials, high critical temperature superconductors, biomaterials, high strength polymers, materials processing techniques such as ion implantation and laser melting, and in new categories of engineered materials such as advanced industrial ceramics or composite materials.

Materials science is interdisciplinary, drawing on the basic sciences of chemistry and physics and on more applied subjects such as metallurgy, ceramics and polymer science. Its tools and techniques include electron microscopy, x-ray diffraction, surface analysis using Auger emission spectroscopy, x-ray photoelectron spectroscopy, etc.

Applied Science: Materials, MSE IOIHI, is designed to appeal to a wide variety of student interests. Other materials science courses are available to students having the prescribed prerequisites and the approval of the Undergraduate Student Counsellor. The specialist program in Materials Science is coordinated jointly by the Departments of Chemistry and Materials Science and Engineering. For further information on the program, consult the coordinators listed in the Materials Science Program section below. For further information on materials courses from the Faculty of Applied Science and Engineering, consult the Undergraduate Student Counsellor.
Undergraduate Counsellor: Professor U. Erb, Department of Materials Science and Engineering Science,Wallberg Building, Room I40 (4I6-978-7308)

## Materials Science Programs

## Materials Science (Science program)

Consult Professor Eugenia Kumacheva, Department of Chemistry and Professor U. Erb, Department of Metallurgy and Materials Science.
Enrolment in this program requires completion of four courses; no minimum GPA required.

## Specialist program:

( 13 full courses or their equivalent, including at least one 400series course)
NOTE:The program consists of a core curriculum and electives. By suitably choosing electives, students follow one of two streams: I.) Materials Chemistry, or 2.) Materials Science and Engineering. See Notes I, 2 and 3 below.

## Core Curriculum:

First Year:
CHM I5IYI/(I38HI, I39HI); MAT I35YI/I37YI;PHY
I38YI/I40YI

Second Year:
MSE IOIHI; CHM $225 \mathrm{YI} / 238 \mathrm{YI}, 247 \mathrm{HI} / 249 \mathrm{HI}$
Third and Fourth Years:
I. CHM $325 \mathrm{HI}, 434 \mathrm{HI}$
2. Two of: CHM $(326 \mathrm{HI} / 328 \mathrm{HI}, 327 \mathrm{HI}) / 338 \mathrm{HI} /(343 \mathrm{HI} /$
$346 \mathrm{HI}) / 348 \mathrm{HI}$
3. Three MSE half-courses
4. Further $300 / 400$-level full course equivalents in CHM/MSE/ CHE to make a total of 13 full courses.

## Notes:

I. Materials Chemistry Stream:
a. Introduction to Research: select one of CHM

409YI/4I8YI/428YI/439YI/449YI
b. Stream Electives: select two of MSE $217 \mathrm{HI} / 330 \mathrm{HI} /$ $430 \mathrm{HI} / \mathrm{CHM} 426 \mathrm{HI}, 44 \mathrm{IHI}$
c. Student programs must include at least one full course equivalent from among the Materials courses of the Faculty of Applied Science and Engineering.
2. Materials Science and Engineering Stream: a. Thesis: MSE 499YI
b. Stream Electives: select two of MSE $202 \mathrm{HI} / 217 \mathrm{HI} /$ $230 \mathrm{HI} * / 23 \mathrm{IHI} * / 3 \mathrm{I} 6 \mathrm{HI} / 330 \mathrm{HI} / 430 \mathrm{HI} / \mathrm{CHE} 46 \mathrm{IHI} / 463 \mathrm{HI}$ c. Student programs must include at least four full course equivalents from among the Materials courses of the Faculty of Applied Science and Engineering.

* Combined course of MSE 230HI and MSE 23IHI. Please see the course description.


## Additional Notes:

3. Students may also select elective courses which satisfy the core curriculum requirements listed above but which do not correspond to either of the listed streams. Such students should consult Professor Eugenia Kumacheva (Chemistry) and Professor U. Erb (Materials Science and Engineering) before enroling in elective courses.

## Materials Science Courses

See page 33 for Key to Course Descriptions..
For Distribution Requirement purposes (see page 27), all MSE and CHE courses are classified as Science courses.

## Notes

I. The MSE and CHE courses below are administered by the Faculty of Applied Science and Engineering, and are subject to the rules and regulations of that Faculty, including those for term dates and examination periods.
2. The CHM courses listed for the Materials Science program are described in the Chemistry section of this Calendar.
MSEIOIHI Materials Science 39L, 20P, 20T
An introductory course in applied science examining the fundamentals of atomic structure, quantum physics, the nature and bonding in materials, chemical and phase equilibria in the gaseous, liquid and solid state reactive kinetics. The course examines the application of these basic principles in exploring the mechanical, electrical and optical properties of materials through the establishment of structure-property relationships. Prerequisite: OAC/Grade 12 U Chemistry, Physics, and Calculus

## MSE207HI

## Structure and

39L, 20P, I3T

## Characterization of Materials

The theoretical and experimental interpretation of the
structure of various inorganic materials. Crystalline and
amorphous materials in terms of electronic structure of atoms, atomic bonding, atomic coordination and packing. An introduction to defects in crystals. Experimental techniques include: optical and electron microscopy, X-ray diffraction, Auger electron spectroscopy, X-ray photoelectron spectroscopy and secondary-ion mass spectrometry.
Recommended preparation: MSEIOIHI
MSE3I4HI Kinetics and Reactor Design 39L, 26T
The course covers factors affecting the speed of chemical reactions, including the theory of reaction rates, reaction orders, activation energy, homogeneous and heterogeneous reactions, catalysts. Analysis of mixed reaction control for gas-solid and liquid-solid systems. The effects of particles size, temperature and fluid flow conditions on the rate of mass transfer and chemical reaction rates. Modes and kinetics of sintering. The course will conclude by an analysis of various types of industrial reactors including batch, plug flow, counter flow and continuous mixed reactors and how the shape and mode of operation affect the rate oand completion of reactions. Examples include fluidized bed reactors, shaft furnaces, rotary kilns and converters.

## MSE3I5HI Materials Degradation 39L, 20P, 26T and Corrosion

Thermodynamics of material-electrolyte systems, Nernst equation and Pourbaix diagrams, and rate theory through activation and concentration polarization. Corrosion of metallic, polymeric, ceramic, composite, electronic and bio-materials, and mechano-chemical effects of stress corrosion, hydrogen embrittlement and corrosion fatigue. Corrosion prevention in design and the use of expert systems in materials selection.

## MSE3I6HI Mechanical Behaviour 39L, 20P, I3T of Materials

The mechanical behaviour of engineering materials including metals, alloys, ceramics and polymeric materials. Macro- and micro-structural response of materials to external loads; load-displacement and stress-strain relationships, processes and mechanisms of elastic, visco-elastic, plastic and creep deformation, crystallographic aspects of plastic flow, effect of defects on mechanical behaviour, strain hardening theory, strengthening mechanisms and mechanical testing.
MSE318HI Phase Transformations 39L, 20P, I3T Thermodynamics and phase stability. Phase transformations in unary systems: primary crystallization, crystallization of amorphous materials, recrystallization. Phase transformations in binary systems: solidification, precipitation from solid solution, binary invariant reactions. Diffusional transformations, nucleation and growth, diffusionless or martensitic transformations. Second order transformations. Spinodal, massive and order-disorder transformations.

MSE3I9HI Fracture and Failure Analysis 39L, I3T Nature of brittle and ductile fracture, macro-phenomena and micro-mechanisms of failure in various material types, mechanisms of fatigue failure: crack nucleation and propagation, Griffith theory, stress field at crack tips, stress intensity factor and fracture toughness, crack opening displacement, energy principle and the J-integral, fracture mechanics in fatigue, da/dN curves and their significance. Fatigue analysis and fundamentals of non-destructive testing.
Prerequisite: MSE316HI

## CHM325HI Introduction to Inorganic and Polymer Materials Chemistry

See "Chemistry"
MSE330HI Introduction to Polymer 39L, I3T Engineering
Introduction to polymer synthesis, structure, characterization and mechanical properties. Topics include addition and condensation polymerization, network polymerization and crosslinking, molecular mass distribution and characterization, crystalline and amorphous structure, glass transition and crystalline melting, forming and additives for commercial plastics, dependence of mechanical properties on structure, viscoelasticity, yielding and fracture.
MSE40IHI Materials Selection \& Design 39L, 39T Selection and design of engineering materials, allowing the most suitable materials for a given application to be identified from the full range of materials and section shapes available. Case studies to illustrate a novel approach employing materials selection charts which capture the important properties of all engineering materials, allowing rapid computer retrieval of information.

MSE420HI Biomaterials
26L, 26T
Materials for surgical implants. Influence of mechanical, chemical and physical properties of metals, ceramics and polymers as well as interactions at the implant-tissue interface. Materials for use in orthopaedic, dental and cardiovascular applications.

## MSE430HI Electronic Materials <br> 26L, 39T

Material parameters and electronic properties of
semiconductors. The material parameters are discussed in terms of the preparation and processing methods and the required electronic properties of engineering devices. Some techniques for evaluating electronic properties are discussed.

## CHM434HI Advanced Materials Chemistry

See "Chemistry"
CHE46IHI Chemical Properties of 39L, 13T Polymers
Structure-property relationships in metals, ceramics, polymers, with an emphasis on composite materials. Creep, fracture toughness and corrosion of each class of material. Use of special alloys, advanced ceramics and fibre reinforced composites to meet unique performance requirements.

## CHE463HI Polymer Science \& Engineering 39L, I2T

The effect of processing on polymer properties using a case study approach. Properties to be examined include molecular, physical, mechanical and flow behaviour, while processing examples include polymerization of methyl methacrylate, reactive extrusion of polyethylene, blending of polyethylene with polypropylene, micro-encapsulation by spray drying and recycling of waste plastics.
Prerequisite: MSE330HI

## MSE499YI Thesis

An experimental research topic in materials science and engineering involving original work normally related closely to the current research of a departmental staff member. The final grade is based on two oral presentations, a progress report on the Fall Term work, a poster presentation and a written dissertation.
Exclusion: CHM409YI/4I8YI/428YI/439YI/449YI/MSE490HI
Prerequisite: Any 300/400-series MSE half course and permission of the Department

## Mathematics

## Faculty

Professors Emeriti
M.A.Akcoglu, M Sc, Ph D, FRSC
E.J. Barbeau, MA, Ph D (U)
B. Brainerd, MS, Ph D
H.C. Davis, MA, Ph D (N)
E.W. Ellers, Dr Rer Nat
L.T. Gardner, MA, Ph D (U)
P.C. Greiner, MA, Ph D, FRSC
I. Halperin, MA, Ph D, FRSC
S. Halperin, M Sc, Ph D, FRSC
W. Haque, MA, Ph D FRSC
V. Jurdjevic, MS, PhD
I. Kupka, AM, Ph D, Dr ès Sc M
D.R. Masson, M Sc, Ph D (U)
J. McCool, B Sc, Ph D
K. Murasugi, MA, D Sc, FRSC
K.B. Ranger, B Sc, Ph D, FRSC
P.G. Rooney, B Sc, Ph D, FRSC
W.W. Sawyer, MA
D.K. Sen, M Sc, Dr ès Sc R.W. Sharpe, MA, Ph D (UTSC)
F.A. Sherk, M Sc, Ph D (U)
S.H. Smith, B Sc, Ph D

Professor and Chair of the Department
J. Bland, M Sc, Ph D

Professor and Associate Chair
R, McCann, B Sc, Ph D
Professor and Associate Chair
J.W. Lorimer, M Sc, Ph D (U)

University Professors
J.G. Arthur, MA, Ph D, FRSC, FRS
J. Friedlander, MA, Ph D, FRSC (UTSC)
I.M. Sigal, BA, Ph D, FRSC

## Professors

D. Bar-Natan, B Sc, Ph D
E. Bierstone, MA, Ph D, FRSC
T. Bloom, MA, Ph D, FRSC
R.-O. Buchweitz, Dipl Maths, Dr Rer Nat (UTSC)
M.D. Choi, MA, Ph D, FRSC
A. del Junco, M Sc, Ph D
G. Elliott, B Sc, Ph D, FRSC
G. Forni, B Sc, Ph D
M. Goldstein, B Sc, Ph D (UTSC)
I.R. Graham, B Sc, Ph D (UTM)
V. Ivrii, MA, Ph D, Dr Math, FRSC
L. Jeffrey, $A B$, Ph D (UTSC)
R. Jerrard,, B Sc, Ph D
Y. Karshon, B Sc, Ph D (UTM)
K. Khanin, M Sc, Ph D (UTM)
B. Khesin, M Sc, Ph D
A. Khovanskii, M Sc, Ph D
H. Kim, B Sc, Ph D
S. Kudla, B A, MA, Ph D
M. Lyubich, B Sc, Ph D
E. Meinrenken, B Sc, Ph D
E. Mendelsohn, M Sc, Ph D (UTSC)
G. Mikhalkin, BA, Ph D
P. Milman, Dipl Maths, Ph D, FRSC
F. Murnaghan, M Sc, Ph D
K. Murty, B Sc, Ph D, FRSC
A. Nachman, B Sc, Ph D
C. Pugh, B Sc, Ph D
J. Quastel, M Sc, Ph D
J. Repka, B Sc, Ph D (U)
P. Rosenthal, MA, Ph D, LLB
L. Seco, BA, Ph D (UTM)
P. Selick, B Sc, MA, Ph D (UTSC)
M. Shub, AB, Ph D
C. Sulem, M Sc, Dr D'Etat
F.D. Tall, AB, Ph D (UTM)
S. Todorcevic, B Sc, Ph D
W.A.R.Weiss, M Sc, Ph D (UTM)

## Associate Professors

A. Burchard., B Sc, Ph D
J. Colliander, BA, Ph D
V. Kapovitch, B Sc, Ph D
A. Nabutovsky, M Sc, Ph D
M. Pugh, B Sc, Ph D
J. Scherk, D Phil (UTSC)
S.M. Tanny, B Sc, Ph D (UTM)
M. Yampolsky, B Sc, Ph D (UTM)

## Assistant Professors

S. Arkhipov, B Sc, Ph D
I. Binder, B Sc, M Sc, Ph D (UTM)
V. Blomer, B Sc, Ph D (UTM)
A. Butscher, B Sc, Ph D (UTSC)
K. Hori, B Sc, Ph D
K. Kaveh, B Sc, Ph D
R. Ponge, B Sc, M S, Ph D
R. Rotman, BA, Ph D
B. Szegedy, B Sc, Ph D
B. Virag, BA, Ph D (UTSC)

## Senior Lecturers

S.Abou-Ward, M Sc
D. Burbulla, B Sc, B Ed, MA
A. Igelfeld, M Sc (W)
A. Lam, M Sc
F. Recio, M Sc, Ph D

## Lecturers

S. Homayouni, B Sc, Ph D
E.A.P. LeBlanc, MA, Ph D
S. Uppal, M Sc

## Tutors

P. Kergin, M Sc, Ph D
J.Tate, B Sc, B Ed

Mathematics teaches you to think, analytically and creatively. It is a foundation for advanced careers in a knowledge-based economy. Students who develop strong backgrounds in
mathematics often have distinct advantages in other fields such as physics, computer science, economics, and finance.

The past century has been remarkable for discovery in mathematics. From space and number to stability and chaos, mathematical ideas evolve in the domain of pure thought. But the relationship between abstract thought and the real world is itself a source of mathematical inspiration. Problems in computer science, economics and physics have opened new fields of mathematical inquiry. And discoveries at the most abstract level lead to breakthroughs in applied areas, sometimes long afterwards.

The University of Toronto has the top mathematics department in Canada, and hosts the nearby Fields Institute (an international centre for research in mathematics. The Department offers students excellent opportunities to study the subject and glimpse current research frontiers. The Department offers three mathematical Specialist programs - Mathematics, Applied Mathematics, Mathematics and its Applications - as well as Major and Minor programs and several joint Specialist programs with other disciplines (for example, with Computer Science, Economics, Philosophy, Physics and Statistics.

The Specialist program in Mathematics is for students who want a deep knowledge of the subject. This program has been the main training-ground for Canadian mathematicians.A large proportion of our Mathematics Specialist graduates gain admission to the world's best graduate schools.

The Specialist program in Applied Mathematics is for students interested in the fundamental ideas in areas of mathematics that are directed towards applications. The mathematics course requirements in the first two years are the same as in the Mathematics Specialist program; a strong student can take the courses needed to get a degree in both Specialist programs.

These programs are challenging, but small classes with excellent professors and highly-motivated students provide a stimulating and friendly learning environment.

The Specialist program in Mathematics and its Applications is recommended to students with strong interests in mathematics and with career goals in areas such as teaching, computer science, the physical sciences and finance. The program is flexible; there is a core of courses in mathematics and related disciplines, but you can choose among several areas of concentration. The mathematics courses required for the program are essentially the same as those required for a Major in Mathematics. (They are less intense than the courses required for the Specialist programs above.) If you are interested in mathematics and are contemplating a double Major in Mathematics and in another discipline (let us take Computer Science, as an example), you should consider the advantages of fulfilling the requirements for a Specialist degree in Mathematics and its Applications with a computer science concentration. In this way, you can also get a Major in Computer Science; the difference in course requirements with a double major is that, among the courses you can choose for a Computer Science Major, you will be required to take some of a more mathematical nature. You might even consider choosing your options to fulfil the requirements for a double Specialist degree, in both Mathematics and its Applications and in the other discipline.

The Professional Experience Year program ("PEY": see index) is available to eligible, full-time Specialist students after their second year of study. The PEY program is an optional 16 month work term providing industrial experience; its length often allows students to have the rewarding experience of initiating and completing a major project.

The Department operates a non-credit summer course, PUMP, limited to students admitted to the University. It is designed for students who require additional pre-university mathematics background. Details can be found at www.math.utoronto. ca/pump

Associate Chair for Undergraduate Studies: Professor J.W. Lorimer, Bahen Building, 40 George Street, Room 6290 (416-978-5164)

Student Counselling: Bahen Building, Room 6166
Mathematics Aid Centres: Sidney Smith Hall, Room I07I; University College, Room UC48
Departmental Office: Bahen Building, Room 6290 (416-9783323)

## Mathematics Programs

Enrolment in the Mathematics programs requires completion of four courses; no minimum GPA is required.

## Applied Mathematics (Science program)

Consult Professor J.W. Lorimer, Associate Chair, Department of Mathematics

## Specialist program:

(13 full courses or their equivalent, including at least one 400series course)
First Year:
MAT 157 Y , $240 \mathrm{HI}, 247 \mathrm{HI}, \mathrm{CSCl} 48 \mathrm{HI} / \mathrm{I} 50 \mathrm{HI}$
Second Year:
MAT257YI, 267 HI ; CSC260HI; STA 257 HI
Third and Fourth Years:
I. APM 35 IYI ; MAT $327 \mathrm{HI}, 354 \mathrm{HI}, 347 \mathrm{YI}, 357 \mathrm{HI}, 363 \mathrm{HI}$; STA347HI
2. At least 2 full courses chosen from: MAT $344 \mathrm{HI}, 454 \mathrm{HI}$, $457 \mathrm{YI}, 464 \mathrm{HI}, 477 \mathrm{HI} ;$ STA $302 \mathrm{HI}, 352 \mathrm{YI}, 438 \mathrm{HI}, 457 \mathrm{HI}$; CSC $350 \mathrm{HI}, 35 \mathrm{IHI}, 446 \mathrm{HI}, 456 \mathrm{HI}$
3. Three courses from:APM42IHI, $426 \mathrm{HI}, 46 \mathrm{IHI}$, $462 \mathrm{HI}, 466 \mathrm{HI}$
NOTE:The Department recommends that PHY I40YI be taken in First Year. If you do not have a year course in programming from high school, the Department strongly recommends that you take $\mathrm{CSCI} 107 \mathrm{HI} / 108 \mathrm{HI}$ before attempting $\mathrm{CSCI} 48 \mathrm{HI} / \mathrm{I} 50 \mathrm{HI}$.

## Mathematics (Science program)

Consult Professor J.W. Lorimer, Associate Chair, Department of Mathematics

## Specialist program:

(11.5 full courses or their equivalent, including at least one 400series course)

## Mathematics

First Year:
MAT I57YI, 240HI, 247HI
Second Year:
MAT $257 \mathrm{YI}, 267 \mathrm{HI}$
Third and Fourth Years:
I. MAT $327 \mathrm{HI}, 347 \mathrm{Y}, 354 \mathrm{HI}, 357 \mathrm{HI}, 477 \mathrm{HI}$
2. One of:APM 35IYI, MAT 457YI
3. Three of:APM 46 IHI, MAT $309 \mathrm{HI}, 363 \mathrm{HI} 4 \mathrm{I} 5 \mathrm{HI} / 4 \mathrm{I} 7 \mathrm{HI}$, 454HI
4. At least 2.5 APM/MAT including at least 1.5 at the 400 -level (these may include options above not already chosen)
NOTE:The Department recommends that PHY 140 Y I be taken in First Year, that CSC $148 \mathrm{HI} / 150 \mathrm{HI} / 260 \mathrm{HI}$ and STA 257 HI be taken during the program. If you do not have a year course in programming from high school, the Department strongly recommends that you take $\mathrm{CSCI} 107 \mathrm{HI} / 108 \mathrm{HI}$ before attempting $\mathrm{CSCl} 48 \mathrm{HI} / \mathrm{I} 50 \mathrm{HI}$.

## Major program:

(7 full courses or their equivalent)
First Year:
MAT I35YI/I36YI/I37YI, 223HI
Second Year:
MAT $224 \mathrm{HI} / 247 \mathrm{HI}, 235 \mathrm{YI} / 237 \mathrm{YI}, 246 \mathrm{HI} /(\mathrm{CSC} 236 \mathrm{HI} / 240 \mathrm{HI}$,

## PHL 245 HI ), MAT 244 HI

NOTE:
MAT 224 HI may be taken in first year
Higher Years:
I. MAT $30 \mathrm{IHI}, 334 \mathrm{HI}, \mathrm{PHL} 245 \mathrm{HI}$
2. One half course or equivalent at the $200+$ level from:ACT, APM, MAT, STA
3. MAT40IHI/402HI; one half course at $300+$ level from: at least APM, MAT, HPS $390 \mathrm{HI}, 39 \mathrm{IHI}, \mathrm{PSL} 43 \mathrm{IHI}, 432 \mathrm{HI}$, 433 HI ; PHL346HI, 349HI

## Minor program:

(4 full courses or their equivalent)
I. MAT I $35 \mathrm{YI} / \mathrm{I} 36 \mathrm{YI} / I 37 \mathrm{YI}, 235 \mathrm{YI} / 237 \mathrm{YI}, 223 \mathrm{HI}, 224 \mathrm{HI} /$ 244HI/APM236HI
2. One 300+-level full course or combination from:APM, MAT, including HPS $390 \mathrm{HI}, 39 \mathrm{IHI}$, PSL $43 \mathrm{IHI}, 432 \mathrm{HI}, 433 \mathrm{HI}$

Note: in all programs, higher kevels courses within the same topic are acceptable substitutions.

## Mathematics and Its Applications (Science program)

## Specialist program:

(I0.5-II.5 full courses or their equivalent, including one full course at 400-level)
The program requirements are the core courses below, together with the courses in one of the following areas of concentration. If you get a specialist degree in Mathematics and its Applications, your transcript and degree will indicate also your area of concentration. Please be careful to check course prerequisites in choosing your program.

## Core Courses:

First Year:
CSC $107 \mathrm{HI} / 108 \mathrm{HI}, \mathrm{MAT}$ I $35 \mathrm{YI} / I 36 \mathrm{YI} / I 37 \mathrm{Y} I / I 57 \mathrm{Y}$ (MAT I 37 Y I strongly recommended), $223 \mathrm{HI} / 240 \mathrm{HI}$

Second Year:
MAT $224 \mathrm{HI} / 247 \mathrm{HI}, 235 \mathrm{YI} / 237 \mathrm{YI} / 257 \mathrm{YI}$ (MAT 237 YI strongly
recommended), MAT 246 HI (waived for students taking
MAT 257 Y ), MAT $244 \mathrm{HI} / 267 \mathrm{HI}$, STA 257 HI
Higher Years:
MAT $30 \mathrm{IHI}, 334 \mathrm{HI}$

## Areas of Concentration

## Teaching Concentration:

It may be to students' advantage to keep in mind that OISE requires students to have a second teachable subject.
I. MAT329YI, HPS/MAT390HI, HPS/MAT39IHI, MAT40IHI/ 402HI
2. Two of :MAT $309 \mathrm{HI}, 315 \mathrm{HI}, 335 \mathrm{HI}, 337 \mathrm{HI}, 344 \mathrm{HI}, 363 \mathrm{HI}$
3. Two half courses at 300+ level from APM, STA

This program addresses an increasing need for highly qualified mathematics teachers. Students planning to apply for admission to a B.Ed. program are encouraged also to get practical teaching experience at a level of their interests. Students successfully completing the Teaching Concentration and having practical experience will be highly competitive for admission to initial teaching programs at OISE/UT.

## Computer Science Concentration:

I. CSC $207 \mathrm{HI}, 165 \mathrm{HI}, 258 \mathrm{HI}, 209 \mathrm{HI} ; \mathrm{MAT} 344 \mathrm{HI}$
2. Three of :APM $46 \mathrm{IHI} ; \mathrm{CSC} 350 \mathrm{HI}, 35 \mathrm{IHI}, 354 \mathrm{HI}, 363 \mathrm{HI}$, $378 \mathrm{HI}, 438 \mathrm{HI}, 446 \mathrm{HI}, 456 \mathrm{HI}, 465 \mathrm{HI}, 487 \mathrm{HI}$
3. Two CSC half courses at $300+$ level.

NOTE: In order to take the Computer Science concentration, you will be required to register also for a Computer Science Major. (The latter is a restricted enrolment program and has certain admission requirements; please see the Computer Science program description.)

Physical Sciences Concentration:
I. PHY I40YI (in first year);APM $346 \mathrm{HI} / 35 \mathrm{IYI} ; A S T 22 \mathrm{IHI}$, 222 HI
2. Two of PHY $25 \mathrm{IHI}, 252 \mathrm{HI}, 255 \mathrm{HI}, 256 \mathrm{HI}$
3. Two of APM $42 \mathrm{IHI}, 436 \mathrm{HI}, 44 \mathrm{IHI}, 446 \mathrm{HI} ;$ AST 320 HI , 325 HI ; MAT 337 HI ; PHY $307 \mathrm{HI}, 309 \mathrm{HI}, 3 \mathrm{I} 5 \mathrm{HI}, 35 \mathrm{IHI}$, $352 \mathrm{HI}, 353 \mathrm{HI}, 355 \mathrm{HI}, 357 \mathrm{HI}, 358 \mathrm{HI}$

## Probability/Statistics Concentration:

I. CSC $260 \mathrm{HI} / 207 \mathrm{HI}, 350 \mathrm{HI} ; A P M ~ 346 \mathrm{HI} / 35 \mathrm{IYI} / 462 \mathrm{HI}$; MAT 337 HI ; STA $302 \mathrm{HI}, 347 \mathrm{HI}, 352 \mathrm{YI}$
2. Two of: STA $422 \mathrm{HI}, 437 \mathrm{HI}, 438 \mathrm{HI}, 442 \mathrm{HI}, 447 \mathrm{HI}, 457 \mathrm{HI}$

## Design-Your-Own Concentration:

Nine half-courses of which at least six must be at the $300+$ level, to be approved by the Department no later than the beginning of your third year.

## Mathematical Applications in Economics and Finance (Science Program)

Consult Professor J.W. Lorimer, Associate Chair, Department of Mathematics

## Specialist program:

(II.5-12 full courses or their equivalent including one full course at the 400-level)
Firtst Year:
ECOI00YI, MATI37YI, 223HI, 224HI
Second Year:
ECO206YI, MAT237Y, 244HI, STA257HI, 26IHI
Higher Years:
APM $346 \mathrm{HI}, \mathrm{APM} 462 \mathrm{HI}, 466 \mathrm{HI}, \mathrm{ECO} 358 \mathrm{HI}, \mathrm{MAT} 337 \mathrm{HI}$, STA $302 \mathrm{HI} / E C O 327 \mathrm{YI}$, STA347HI, STA457HI
Two of: ECO359HI, MAT3I5HI, 334HI

## Mathematics and Computer Science: see Computer Science

Mathematics and Economics: see Economics
Mathematics and Philosophy (Science program)
Consult the Undergraduate Coordinators of the Departments of Mathematics and Philosophy.

## Specialist program:

(I3 full courses or their equivalent including one full course at the 400-level)

## First Year:

MAT $157 \mathrm{YI}, 240 \mathrm{HI}, 247 \mathrm{HI} ; \mathrm{PHL} 245 \mathrm{HI}$
Higher Years:
I. PHL245HI (if not taken in First Year)
2. MAT $257 \mathrm{YI}, 327 \mathrm{HI}, 347 \mathrm{YI}, 354 \mathrm{HI} / 357 \mathrm{HI}$
3. PHL $346 \mathrm{HI} / 349 \mathrm{HI}$, MAT $309 \mathrm{HI} / \mathrm{PHL} 344 \mathrm{HI} / 345 \mathrm{HI}$
4. Four of: $\mathrm{PHL} 246 \mathrm{HI}, 346 \mathrm{HI}, 347 \mathrm{HI}, 349 \mathrm{HI}, 480 \mathrm{HI}$
5. One course in epistemology and/or philosophy of science
6. 3.5 additional PHL courses, preferably including two in the history of philosophy and one in ethics or social/political philosophy

## Mathematics and Physics(Science program)

Consult Professor J.W. Lorimer, Associate Chair, Department of Mathematics, and the Associate Chair, Department of Physics.

## Specialist program:

(13.5 full courses or their equivalent, including at least one 400series course)
First Year:
MAT I57YI, $240 \mathrm{HI}, 247 \mathrm{HI}$; PHY I40YI
Second Year:
MAT $257 \mathrm{YI}, 267 \mathrm{HI}$; PHY $225 \mathrm{HI}, 25 \mathrm{IHI}, 252 \mathrm{HI}, 255 \mathrm{HI}, 256 \mathrm{HI}$
Third Year:
APM 35 I I, MAT $327 \mathrm{HI}, 354 \mathrm{HI}, 357 \mathrm{HI}, 363 \mathrm{HI}$; PHY 35 IHI , $352 \mathrm{HI}, 355 \mathrm{HI}$
Fourth Year:
APM $42 \mathrm{IHI}, 426 \mathrm{HI} ;$ PHY 457 HI ;APM $446 \mathrm{HI} / \mathrm{PHY}$
$459 \mathrm{HI} / 460 \mathrm{HI}$
Mathematics and Statistics: see Statistics

## Applied Mathematics Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes, all APM courses are classified as Science courses (see page 27).


#### Abstract

APM236HI Applications of Linear 39L

Introduction to linear programming including a rapid review of linear algebra (row reduction, linear independence), the simplex method, the duality theorem, complementary slackness, and the dual simplex method. A selection of the following topics are covered: the revised simplex method, sensitivity analysis, integer programming, the transportation algorithm. Prerequisite: MAT223HI/240HI (Note: no waivers of prerequisites will be granted)


APM346HI Partial Differential Equations 39L
Sturm-Liouville problems, Green's functions, special functions (Bessel, Legendre), partial differential equations of second order, separation of variables, integral equations, Fourier transform, stationary phase method.
Prerequisite: MAT235YI/237YI/257YI, 244HI
APM35IYI Partial Differential Equations 78L Diffusion and wave equations. Separation of variables. Fourier series. Laplace's equation; Green's function. Schrödinger equations. Boundary problems in plane and space. General eigenvalue problems; minimum principle for eigenvalues. Distributions and Fourier transforms. Laplace transforms. Differential equations of physics (electromagnetism, fluids, acoustic waves, scattering). Introduction to nonlinear equations (shock waves, solitary waves).
Prerequisite: MAT267HI
Co-requisite: MAT $334 \mathrm{HI} / 354 \mathrm{HI}$

## 400-SERIES COURSES

## Note:

Some courses at the 400 -level are cross-listed as graduate courses and may not be offered every year. Please see the Department's undergraduate brochure for more details.

## APM42IHI Mathematical Foundations

 of QuantumThe general formulation of non-relativistic quantum mechanics based on the theory of linear operators in a Hilbert space, self-adjoint operators, spectral measures and the statistical interpretation of quantum mechanics; functions of compatible observables. Schrödinger and Heisenberg pictures, complete sets of observables, representations of the canonical commutative relations; essential self-adjointedness of Schrödinger operators, density operators, elements of scattering theory.
Prerequisite: (MAT224HI, 337 HI$) / 357 \mathrm{HI}$

## APM426HI General Relativity <br> 39L

Einstein's theory of gravity. Special relativity and the geometry of Lorentz manifolds. Gravity as a manifestation of spacetime curvature. Einstein's equations. Cosmological implications: big bang and inflationary universe. Schwarzschild stars: bending of light and perihelion precession of Mercury. Topics from black hole dynamics and gravity waves.
Prerequisite: MAT363HI

# Mathematics 

## APM436HI Fluid Mechanics <br> 39L

Boltzmann, Euler and Navier-Stokes equations.Viscous and nonviscous flow. Vorticity. Exact solutions. Boundary layers. Wave propagation. Analysis of one dimensional gas flow.
Prerequisite: APM35IYI


#### Abstract

APM44IHI Asymptotic and Perturbation Methods Asymptotic series.Asymptotic methods for integrals: stationary phase and steepest descent. Regular perturbations for algebraic and differential equations. Singular perturbation methods for ordinary differential equations:W.K.B., strained co-ordinates, matched asymptotics, multiple scales. (Emphasizes techniques; problems drawn from physics and engineering) Prerequisite: APM346HI/35IYI, MAT334HI

\section*{APM446HI Applied Nonlinear Equations}

Nonlinear partial differential equations and their physical origin. Fourier transform; Green's function; variational methods; symmetries and conservation laws. Special solutions (steady states, solitary waves, travelling waves, self-similar solutions). Calculus of maps; bifurcations; stability, dynamics near equilibrium. Propagation of nonlinear waves; dispersion, modulation, optical bistability. Global behaviour solutions; asymptotics and blow-up. Prerequisite: APM346HI/35IYI


APM456HI Control Theory and Optimization 39L Differential systems with controls and reachable sets. Noncommutativity, Lie bracket and controllability. Optimality and maximum principle. Hamiltonian formalism and symplectic geometry. Integrability. Applications to engineering, mechanics and geometry.
Prerequisite: MAT 357 HI or MAT $244 \mathrm{HI} / 267 \mathrm{HI}, 337 \mathrm{HI}$

## APM46IHI Combinatorial Methods

A selection of topics from such areas as graph theory, combinatorial algorithms, enumeration, construction of combinatorial identities.
Prerequisite: MAT224HI
Recommended preparation: MAT344HI

## APM462HI Nonlinear Optimization (formerly APM362HI)

An introduction to first and second order conditions for finite and infinite dimensional optimization problems with mention of available software. Topics include Lagrange multipliers, Kuhn-Tucker conditions, convexity and calculus variations. Basic numerical search methods and software packages which implement them will be discussed.
Prerequisite: MAT223HI, 235YI
APM466HI Mathematical Theory of Finance 39L
Introduction to the basic mathematical techniques in pricing theory and risk management: Stochastic calculus, single-period finance, financial derivatives (tree-approximation and BlackScholes model for equity derivatives, American derivatives, numerical methods, lattice models for interest-rate derivatives), value at risk, credit risk, portfolio theory.
Prerequisite: APM346HI, STA347HI
Co-requisite: STA457HI
APM496HI/ Readings in Applied Mathematics TBA 497HI/498YI/499YI
Independent study under the direction of a faculty member. Topic must be outside undergraduate offerings.
Prerequisite: minimum GPA 3.5 for math courses. Permission of the Associate Chair for Undergraduate Studies and prospective supervisor

## Mathematics Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes, all MAT courses except
MAT $123 \mathrm{HI}, I 24 \mathrm{HI}$ and $I 33 \mathrm{Y}$ I are classified as SCIENCE
courses (see page 27).
High school prerequisites for students coming from outside the Ontario high school system:
MATI33YI: high school level calculus and (algebra-geometry or finite math or discrete math)
MATI35YI: high school level calculus
MATI37YI: high school level calculus and algebra-geometry
MATI57YI: high school level calculus and algebra-geometry
MAT223HI: high school level calculus and algebra-geometry

## SCII99HI/YI First Year Seminar

 $52 S$Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course; see page 47.
NOTE:Transfer students who have received MATI**HI - Calculus with course exclusion to MATI33YI/I35YI/I36YI may take MATI37YI/ I57YI without forfeiting the half credit in Calculus.
MATI23HI,I24HI
See below MAT I33YI
MAT $125 \mathrm{HI}, \mathbf{1 2 6 H I}$
See below MAT I35YI
MATI33YI Calculus and Linear Algebra 78L, 24T for Commerce
Mathematics of finance. Matrices and linear equations. Review of differential calculus; applications. Integration and fundamental theorem; applications. Introduction to partial differentiation; applications.
NOTE: please note prerequisites listed below. Students without
the proper prerequisites for MATI33YI may be deregistered from this course.
Exclusion: MATI23HI, I24HI, I25HI, $126 \mathrm{HI}, \mathrm{I} 35 \mathrm{YI}, \mathrm{I} 36 \mathrm{YI}$, I37YI, I57YI
Prerequisite: MCB4U,MGA4U/MDM4U
MATI33YI counts as a Social Science course
MATI23HI Calculus and Linear Algebra 39L for Commerce (A)
First term of MATI33YI. Students in academic difficulty in MATI33YI who have written two midterm examinations with a mark of at least $20 \%$ in the second may withdraw from MATI 33 YI and enrol in MATI23HI in the Spring Term. These students are informed of this option by the beginning of the Spring Term. Classes begin in the second week of the Spring Term; late enrolment is not permitted. Students not enrolled in MATI33YI in the Fall Term are not allowed to enrol in MATI23HI.MATI23HI together with MATI 24 HI is equivalent for program and prerequisite purposes to MATI33YI.
Exclusion: MATI25HI, I26HI, I33YI, I35YI, I36YI, I37YI, I57YI
NOTE: students who enrol in MATI33YI after completing MATI23HI but not MATI24HI do not receive degree
credit for MATI 33 Y ; it is counted ONLY as an "Extra Course."
Prerequisite: Enrolment in MATI33YI, and withdrawal from MATI33YI after two midterms, with a mark of at least $20 \%$ in the second midterm.
MATI23HI is a Social Science course
MATI24HI Calculus and Linear Algebra 39L, I3T for Commerce (B)
Second Term content of MATI33YI; the final examination includes topics covered in MATI23HI. Offered in the
Summer Session only; students not enrolled in MATI23HI in
the preceding Spring Term will NOT be allowed to enrol in
MATI 24 HI . MATI 23 HI together with MATI 24 HI is equivalent
for program and prerequisite purposes to MATI33YI.
Exclusion: MATI25HI, I26HI, I33YI, I35YI, I36YI, I37YI, I57YI
Prerequisite: MATI23HI successfully completed in the preceding Spring Term
MATI24HI is a Social Science course
MATI35YI Calculus I 78L, 24T
Review of trigonometric functions; trigonometric identities and trigonometric limits. Review of differential calculus; applications. Integration and fundamental theorem; applications. Series. Introduction to differential equations.
Exclusion: MATI23HI, I24HI, I25HI, $126 \mathrm{HI}, \mathrm{I} 33 \mathrm{YI}, \mathrm{I} 36 \mathrm{Y} \mathrm{I}$, I37YI, I57YI
Prerequisite: MCB4U

## MATI25HI Calculus I (A)

First term of MATI35YI. Students in academic difficulty in MATI35YI who have written two midterm examinations with a mark of at least $20 \%$ in the second may withdraw from MATI35YI and enrol in MATI25HI in the Spring Term. These students are informed of this option by the beginning of the Spring Term. Classes begin in the second week of the Spring Term; late enrolment is not permitted. Students not enrolled in MATI35YI in the Fall Term will not be allowed to enrol in MATI25HI.MATI25HI together with MATI 26 HI is equivalent for program and prerequisite purposes to MATI35YI.
Exclusion: MATI23HI, I24HI, I33YI, I35YI, I36YI, I37YI, I57YI
NOTE: students who enrol in MATI35YI after completing MATI25HI but not MATI26HI do not receive degree credit for MATI35YI; it is counted ONLY as an "Extra Course."
Prerequisite: Enrolment in MATI35YI, and withdrawal from MATI 35 Y I after two midterms, with a mark of at least $20 \%$ in the second midterm.
MATI26HI Calculus I (B) 39L, I3T
Second Term content of MATI35YI; the final examination includes topics covered in MATI25HI. Offered in the Summer Session only; students not enrolled in MATI25HI in the preceding Spring Term will NOT be allowed to enrol in MATI26HI.MATI25HI together with MATI 26 HI is equivalent for program and prerequisite purposes to MATI35YI. Exclusion: MATI23HI, I24HI, I $33 \mathrm{YI}, 135 \mathrm{YI}, \mathrm{I} 36 \mathrm{YI}, \mathrm{I} 37 \mathrm{Y} \mathrm{I}$
Prerequisite: MATI25HI successfully completed in the preceding Spring Term
MATI36YI Calculus and its Foundations I04L, 52T Limited to out-of-province students interested in the biological, physical, or computer sciences, whose high school mathematics preparation is strong but does not include calculus. Develops
the concepts of calculus at the level of MATI35YI. May include background material on functions, analytic geometry, and trigonometry, as well as on calculus.
Exclusion: MATI23HI, $124 \mathrm{HI}, 125 \mathrm{HI}, \mathrm{I} 26 \mathrm{HI}, 133 \mathrm{YI}, \mathrm{I} 35 \mathrm{YI}$, I37YI, I57YI
Prerequisite: Solid background in high school mathematics, up to and including Grade II

## MATI37YI Calculus! <br> 78L, 26T

A conceptual approach for students with a serious interest in mathematics. Geometric and physical intuition are emphasized but some attention is also given to the theoretical foundations of calculus. Material covers first a review of trigonometric functions followed by discussion of trigonometric identities. The basic concepts of calculus: limits and continuity, the mean value and inverse function theorems, the integral, the fundamental theorem, elementary transcendental functions, Taylor's theorem, sequence and series, uniform convergence and power series.
Exclusions: MATI26HI, I35YI, I36YI, I57YI
Prerequisite: MCB4U,MGA4U

## MATI57YI Analysis I <br> 78L, 52T

A theoretical course in calculus; emphasizing proofs and techniques, as well as geometric and physical understanding. Trigonometric identities. Limits and continuity; least upper bounds, intermediate and extreme value theorems. Derivatives, mean value and inverse function theorems. Integrals;
fundamental theorem; elementary transcendental functions.
Taylor's theorem; sequences and series; uniform convergence and power series.
Exclusion: MATI37YI
Prerequisite: MCB4U, MGA4U

## JMBI70YI Biology, Models, and 52L, 26T

 MathematicsApplications of mathematics to biological problems in
physiology, biomechanics, genetics, evolution, growth, population dynamics, cell biology, ecology and behaviour.
Co-requisite: BIOI50YI
$\begin{array}{ll}\text { JUM202HI } & \begin{array}{l}\text { Mathematics as an } \\ \text { Interdisciplinary Pursuit }\end{array} \quad \text { 26L, 13T }\end{array}$ (formerly JUMI02HI)
A study of the interaction of mathematics with other fields of inquiry: how mathematics influences, and is influenced by, the evolution of science and culture. Art, music, and literature, as well as the more traditionally related areas of the natural and social sciences may be considered. (Offered every three years) Exclusion: JUMIO2HI
JUM202HI is particularly suited as a Science Distribution Requirement course for Humanities and Social Science students.
JUM203HI Mathematics as a Recreation 26L, I3T (formerly JUMI03HI)
A study of games, puzzles and problems focusing on the deeper principles they illustrate. Concentration is on problems arising out of number theory and geometry, with emphasis on the process of mathematical reasoning. Technical requirements are kept to a minimum. A foundation is provided for a continuing lay interest in mathematics. (Offered every three years) Exclusion: JUMIO3HI
JUM203HI is particularly suited as a Science Distribution Requirement course for Humanities and Social Science students.

## Mathematics

## JUM205HI Mathematical Personalities 26L, I3T (formerly JUMI05HI)

An in-depth study of the life, times and work of several mathematicians who have been particularly influential. Examples may include Newton, Euler, Gauss, Kowalewski, Hilbert, Hardy, Ramanujan, Gödel, Erdös, Coxeter, Grothendieck. (Offered every three years)
Exclusion: JUMI 05 HI
JUM205HI is particularly suited as a Science Distribution Requirement course for Humanities and Social Science students.

## MAT223HI Linear Algebra I 39L, I3T

Matrix arithmetic and linear systems. $\mathrm{R}^{\mathrm{n}}$ subspaces, linear independence, bases, dimension; column spaces, null spaces, rank and dimension formula. Orthogonality orthonormal sets, GramSchmidt orthogonalization process; least square approximation. Linear transformations $R^{n} \longrightarrow R^{m}$. The determinant, classical adjoint, Cramer's Rule. Eigenvalues, eigenvectors, eigenspaces, diagonalization. Function spaces and application to a system of linear differential equations.
Exclusion: MAT240HI
Prerequisite:MCB4U, MGA4U
MAT224HI Linear Algebra II 39L, I3T
Abstract vector spaces: subspaces, dimension theory. Linear mappings: kernel, image, dimension theorem, isomorphisms, matrix of linear transformation. Changes of basis, invariant spaces, direct sums, cyclic subspaces, Cayley-Hamilton theorem. Inner product spaces, orthogonal transformations, orthogonal diagonalization, quadratic forms, positive definite matrices.
Complex operators: Hermitian, unitary and normal. Spectral theorem. Isometries of $R^{2}$ and $R^{3}$.
Exclusion: MAT247HI
Prerequisite: MAT $223 \mathrm{HI} / 240 \mathrm{HI}$

## MAT235YI Calculus II

78L
Differential and integral calculus of functions of several variables. Line and surface integrals, the divergence theorem, Stokes' theorem. Sequences and series, including an introduction to Fourier series. Some partial differential equations of Physics. Exclusion: MAT237YI, 257YI
Prerequisite: MATI35YI/I36YI/I37YI/I57Y|

## MAT237YI Multivariable Calculus

78L
Sequences and series. Uniform convergence. Convergence of integrals. Elements of topology in $R^{2}$ and $R^{3}$. Differential and integral calculus of vector valued functions of a vector variable, with emphasis on vectors in two and three dimensional euclidean space. Extremal problems, Lagrange multipliers, line and surface integrals, vector analysis, Stokes' theorem, Fourier series, calculus of variations.
Exclusion: MAT235YI, 257YI
Prerequisite: MATI37YI/I57YI/I35YI(90\%), $223 \mathrm{HI} / 240 \mathrm{HI}$

## MAT240HI Algebra I 39L, 26T

A theoretical approach to: vector spaces over arbitrary fields including $C, Z_{p}$. Subspaces, bases and dimension. Linear transformations, matrices, change of basis, similarity, determinants. Polynomials over a field (including unique factorization, resultants). Eigenvalues, eigenvectors, characteristic polynomial, diagonalization. Minimal polynomial, Cayley-Hamilton theorem.
Prerequisite: MCB4U, MGA4U
Co-requisite: MATI57YI

## MAT244HI Introduction to Ordinary 39L

 Differential EquationsOrdinary differential equations of the first and second order, existence and uniqueness; solutions by series and integrals; linear systems of first order; non-linear equations; difference equations. Applications in life and physical sciences and economics.
Exclusion: MAT267HI
Prerequisite: MATI35YI/I36YI/I37YI/I57YI, $223 \mathrm{HI} / 240 \mathrm{HI}$
Co-requisite: MAT235YI/237YI

## MAT246HI Concepts in Abstract Mathematics 39L (formerly MAT246YI)

Designed to introduce students to mathematical proofs and abstract mathematical concepts. Topics may include modular arithmetic, sizes of infinite sets, and a proof that some angles cannot be trisected with straightedge and compass.
Exclusion: MAT I57YI, 246YI
Prerequisite: MATI33YI/I35YI/I36YI/I37Y|,223H
MAT247HI Algebra II 39L, I3T
A theoretical approach to real and complex inner product spaces, isometries, orthogonal and unitary matrices and transformations. The adjoint. Hermitian and symmetric transformations. Spectral theorem for symmetric and normal transformations. Polar representation theorem. Primary decomposition theorem. Rational and Jordan canonical forms. Additional topics including dual spaces, quotient spaces, bilinear forms, quadratic surfaces, multilinear algebra. Examples of symmetry groups and linear groups, stochastic matrices, matrix functions.
Prerequisite: MAT240HI
Co-requisite: MATI57YI

## MAT257YI Analysis II 78L, 52T

Topology of $R^{n}$; compactness, functions and continuity, extreme value theorem. Derivatives; inverse and implicit function theorems, maxima and minima, Lagrange multipliers. Integrals; Fubini's theorem, partitions of unity, change of variables. Differential forms. Manifolds in $\mathrm{R}^{\mathrm{n}}$; integration on manifolds; Stokes' theorem for differential forms and classical versions. Prerequisite: MATI57YI, 240HI, 247HI

## MAT267HI Advanced Ordinary 39L, I3T Differential Equations I

First-order equations. Linear equations and first-order systems. Non-linear first-order systems. Existence and uniqueness theorems for the Cauchy problem. Method of power series. Elementary qualitative theory; stability, phase plane, stationary points. Examples of applications in mechanics, physics, chemistry, biology and economics.
Exclusion: MAT244HI
Prerequisite: MATI57YI, 247HI
Co-requisite: MAT257YI

## MAT299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.

## 300-Series Courses

## MAT30IHI Groups and Symmetries

39L
Congruences and fields. Permutations and permutation groups. Linear groups. Abstract groups, homomorphisms, subgroups. Symmetry groups of regular polygons and Platonic solids, wallpaper groups. Group actions, class formula. Cosets,

Lagrange's theorem. Normal subgroups, quotient groups.
Classification of finitely generated abelian groups. Emphasis on examples and calculations.
Exclusion: MAT347YI
Prerequisite: MAT $224 \mathrm{HI}, 235 \mathrm{YI} / 237 \mathrm{YI}$

## MAT309HI Introduction to Mathematical Logic

Predicate calculus. Relationship between truth and provability; Gödel's completeness theorem. First order arithmetic as an example of a first-order system. Gödel's incompleteness theorem; outline of its proof. Introduction to recursive functions.
Exclusion: CSC 438 HI
Prerequisite: MAT $223 \mathrm{HI} / 240 \mathrm{HI}, 235 \mathrm{YI} / 237 \mathrm{YI} / 257 \mathrm{YI}$
MAT3I5HI Introduction to Number Theory 39L
Elementary topics in number theory: arithmetic functions; polynomials over the residue classes modulo $m$, characters on the residue classes modulo m ; quadratic reciprocity law, representation of numbers as sums of squares.
Prerequisite: MAT( $235 \mathrm{YI} / 237 \mathrm{YI}, 223 \mathrm{HI} / 240 \mathrm{HI}) / 257 \mathrm{YI}$
MAT327HI Introduction to Topology 39L
Metric spaces, topological spaces and continuous mappings; separation, compactness, connectedness. Topology of function spaces. Fundamental group and covering spaces. Cell complexes, topological and smooth manifolds, Brouwer fixed-point theorem.
Prerequisite: MAT257YI/(224HI, 237YI, 246HI and permission of the instructor)

## MAT329YI Concepts in Elementary

## Mathematics

The formation of mathematical concepts and techniques, and their application to the everyday world. Nature of mathematics and mathematical understanding. Role of observation, conjecture, analysis, structure, critical thinking and logical argument. Numeration, arithmetic, geometry, counting techniques, recursion, algorithms. This course is specifically addressed to students intending to become elementary school teachers and is strongly recommended by the Faculty of Education. Previous experience working with children is useful. The course content is considered in the context of elementary school teaching. In particular, the course may include a practicum in school classrooms. The course has an enrolment limit of 40 , and students are required to ballot.
Prerequisite: Any 7 full courses with a CGPA of at least 2.5
MAT334HI Complex Variables
Theory of functions of one complex variable, analytic and meromorphic functions. Cauchy's theorem, residue calculus, conformal mappings, introduction to analytic continuation and harmonic functions.
Exclusion: MAT354HI
Prerequisite: MAT223HI, 235YI/237YI
MAT335HI Chaos, Fractals and Dynamics 39L
An elementary introduction to a modern and fast-developing area of mathematics. One-dimensional dynamics: iterations of quadratic polynomials. Dynamics of linear mappings, attractors. Bifurcation, Henon map, Mandelbrot and Julia sets. History and applications.
Prerequisite: MATI37YI/200-level calculus, 223 HI
MAT337HI Introduction to Real Analysis
Metric spaces; compactness and connectedness. Sequences and series of functions, power series; modes of convergence.

Interchange of limiting processes; differentiation of integrals. Function spaces;Weierstrass approximation; Fourier series. Contraction mappings; existence and uniqueness of solutions of ordinary differential equations. Countability; Cantor set; Hausdorff dimension.
Exclusion: MAT357HI Prerequisite: MAT $224 \mathrm{HI}, 235 \mathrm{YI} / 237 \mathrm{YI}, 246 \mathrm{HI}$
MAT344HI Introduction to Combinatorics 39L Basic counting principles, generating functions, permutations with restrictions. Fundamentals of graph theory with algorithms; applications (including network flows). Combinatorial structures including block designs and finite geometries.
Prerequisite: MAT $223 \mathrm{HI} / 240 \mathrm{HI}$

## MAT347YI Groups, Rings and Fields 78L, 26T

Groups, subgroups, quotient groups, Sylow theorems, JordanHölder theorem, finitely generated abelian groups, solvable groups. Rings, ideals, Chinese remainder theorem; Euclidean domains and principal ideal domains: unique factorization. Noetherian rings, Hilbert basis theorem. Finitely generated modules. Field extensions, algebraic closure, straight-edge and compass constructions. Galois theory, including insolvability of the quintic.
Prerequisite: MAT257YI

## MAT354HI Complex Analysis I

 39LComplex numbers, the complex plane and Riemann sphere, Mobius transformations, elementary functions and their mapping properties, conformal mapping, holomorphic functions, Cauchy's theorem and integral formula. Taylor and Laurent series, maximum modulus principle, Schwarz's lemma, residue theorem and residue calculus.
Prerequisite: MAT257YI

## MAT357HI Real Analysis I

Function spaces; Arzela-Ascoli theorem, Weierstrass approximation theorem, Fourier series. Introduction to Banach and Hilbert spaces; contraction mapping principle, fundamental existence and uniqueness theorem for ordinary differential equations. Lebesgue integral; convergence theorems, comparison with Riemann integral, Lp spaces. Applications to probability. Prerequisite: MAT257YI/(327HI and permission of instructor)

## MAT363HI Introduction to Differential 39L

 GeometryGeometry of curves and surfaces in 3 -spaces. Curvature and geodesics. Minimal surfaces. Gauss-Bonnet theorem for surfaces. Surfaces of constant curvature.
Prerequisite: MAT224HI, 237YI/257YI

## MAT390HI History of Mathematics up to 1700 39L

A survey of ancient, medieval, and early modern mathematics with emphasis on historical issues. (Offered in alternate years) Exclusion: HPS309HI, 3 IOYI, 390HI
Prerequisite: at least one full MAT 200-level course
MAT39IHI History of Mathematics 26L, I3T after 1700
A survey of the development of mathematics from 1700 to the present with emphasis on technical development. (Offered in alternate years)
Exclusion: HPS309HI, $310 \mathrm{HI}, 391 \mathrm{HI}$
Prerequisite: At least one full 200-level MAT course

## Mathematics

## MAT393YI/ Independent Work in Mathematics TBA 394YI

Independent study under the direction of a faculty member.
Topic must be outside undergraduate offerings.
Prerequisite: Minimum GPA of 3.5 in math courses. Permission of the Associate Chair for Undergraduate Studies and prospective supervisor

MAT395HI/ Independent Work in Mathematics TBA

## 396HI/

397HI
Independent study under the direction of a faculty member.
Topic must be outside undergraduate offerings.
Prerequisite: Minimum GPA of 3.5 in math courses. Permission of the Associate Chair for Undergraduate Studies and prospective supervisor

## MAT398H0/ Independent Experiential Study Project 399Y0 <br> An instructor-supervised group project in an off-campus setting. See page 47 for details.

## 400-Series Courses

## Note

Some courses at the 400 -level are cross-listed as graduate courses and may not be offered every year. Please see the Department's undergraduate brochure for more details.

## MAT40IHI Polynomial Equations and Fields (formerly MAT302HI)

Commutative rings; quotient rings. Construction of the rationals. Polynomial algebra. Fields and Galois theory: Field extensions, adjunction of roots of a polynomial. Constructibility, trisection of angles, construction of regular polygons. Galois groups of polynomials, in particular cubics, quartics. Insolvability of quintics by radicals.
Exclusion: MAT347YI
Prerequisite: MAT224HI, 235YI/237YI,246HI/257YI

## MAT402HI Classical Geometries <br> (formerly MAT365HI) <br> Euclidean and non-euclidean plane and space geometries. Real and complex projective space. Models of the hyperbolic plane. Connections with the geometry of surfaces. <br> Prerequisite: MAT30IHI

## MAT409HI Set Theory

Set theory and its relations with other branches of mathematics. ZFC axioms. Ordinal and cardinal numbers. Reflection principle. Constructible sets and the continuum hypothesis. Introduction to independence proofs. Topics from large cardinals, infinitary combinatorics and descriptive set theory.
Prerequisite: MAT357HI
MAT4I5HI Topics in Algebraic Number Theory 39L A selection from the following: finite fields; global and local fields; valuation theory; ideals and divisors; differents and discriminants; ramification and inertia; class numbers and units; cyclotomic fields; diophantine equations.

## Prerequisite: MAT347YI or permission of instructor

MAT4I7HI Topics in Analytic Number Theory 39L A selection from the following: distribution of primes, especially in arithmetic progressions and short intervals; exponential sums; Hardy-Littlewood and dispersion methods; character sums and

L-functions; the Riemann zeta-function; sieve methods, large and small; diophantine approximation, modular forms.
Prerequisite: MAT $334 \mathrm{HI} / 354 \mathrm{HI} /$ permission of instructor
MAT425HI Differential Topology 39L
Smooth manifolds, Sard's theorem and transversality. Morse theory. Immersion and embedding theorems. Intersection theory. Borsuk-Ulam theorem. Vector fields and Euler characteristic. Hopf degree theorem. Additional topics may vary. Prerequisite: MAT257YI, 327HI

## MAT427HI Algebraic Topology <br> 39L

Introduction to homology theory: singular and simplicial homology; homotopy invariance, long exact sequence, excision, Mayer-Vietoris sequence; applications. Homology of CW complexes; Euler characteristic; examples. Singular cohomology; products; cohomology ring. Topological manifolds; orientation; Poincare duality.
Prerequisite: MAT327HI, 347YI
MAT443HI Computer Algebra 39L
Introduction to algebraic algorithms used in computer science and computational mathematics. Topics may include: generating sequences of random numbers, fast arithmetic, Euclidean algorithm, factorization of integers and polynomials, primality tests, computation of Galois groups, Gröbner bases. Symbolic manipulators such as Maple and Mathematica are used. Prerequisite: MAT347YI

## MAT445HI Representation Theory 39L

A selection of topics from: Representation theory of finite groups, topological groups and compact groups. Group algebras. Character theory and orthogonality relations. Weyl's character formula for compact semisimple Lie groups. Induced representations. Structure theory and representations of semisimple Lie algebras. Determination of the complex Lie algebras.
Prerequisite: MAT347YI

MAT448HI | Introduction to Commutative |
| :--- |
| Algebra and Algebraic Geometry |

Basic notions of algebraic geometry, with emphasis on
commutative algebra or geometry according to the interests of
the instructor. Algebraic topics: localization, integral dependence
and Hilbert's Nullstellensatz, valuation theory, power series
rings and completion, dimension theory. Geometric topics: affine
and projective varieties, dimension and intersection theory,
curves and surfaces, varieties over the complex numbers.
Prerequisite: MAT347YI

## MAT449HI Algebraic Curves

 39LProjective geometry. Curves and Riemann surfaces. Algebraic methods. Intersection of curves; linear systems; Bezout's theorem. Cubics and elliptic curves. Riemann-Roch theorem. Newton polygon and Puiseux expansion; resolution of singularities.
Prerequisite: MAT347YI, 354HI
MAT $454 \mathrm{HI} \quad$ Complex Analysis II 39L Harmonic functions, Harnack's principle, Poisson's integral formula and Dirichlet's problem. Infinite products and the gamma function. Normal families and the Riemann mapping theorem. Analytic continuation, monodromy theorem and elementary Riemann surfaces. Elliptic functions, the modular function and the little Picard theorem.
Prerequisite: MAT354HI

MAT457YI Real Analysis II
Measure theory and Lebesgue integration; convergence theorems. Riesz representation theorem, Fubini's theorem, complex measures. Banach spaces; Lp spaces, density of continuous functions. Hilbert spaces; weak and strong topologies; self-adjoint, compact and projection operators. Hahn-Banach theorem, open mapping and closed graph theorems. Inequalities. Schwartz space; introduction to distributions; Fourier transforms on Rn (Schwartz space and L2). Spectral theorem for bounded normal operators. Prerequisite: MAT357HI

## MAT464HI Differential Geometry 39L

Riemannian metrics and connections. Geodesics. Exponential map. Complete manifolds. Hopf-Rinow theorem. Riemannian curvature. Ricci and scalar curvature. Tensors. Spaces of constant curvature. Isometric immersions. Second fundamental form. Topics from: Cut and conjugate loci.Variation energy Cartan-Hadamard theorem. Vector bundles. Prerequisite: MAT363HI

## MAT468HI Ordinary Differential Equations II 39L

Sturm-Liouville problem and oscillation theorems for secondorder linear equations. Qualitative theory; integral invariants, limit cycles. Dynamical systems; invariant measures; bifurcations, chaos. Elements of the calculus of variations. Hamiltonian systems. Analytic theory; singular points and series solution. Laplace transform.
Prerequisite: MAT267HI, 354HI, 357HI
MAT477YI Seminar in Mathematics TBA (formerly MAT477HI)
Seminar in an advanced topic. Content will generally vary from year to year. (Student presentations will be required)
Exclusion: MAT477HI
Prerequisite: MAT347YI, $354 \mathrm{HI}, 357 \mathrm{HI}$; or permission of instructor.

MAT495HI/ Readings in Mathematics TBA
496HI/
497HI/
498YI/
499YI
Independent study under the direction of a faculty member.
Topic must be outside undergraduate offerings.
Prerequisite: Minimum GPA of 3.5 in math courses. Permission of the Associate Chair for Undergraduate Studies and prospective supervisor


## Modern Languages and Literatures

The Modern Languages and Literatures program is a number of sub-programs given by Faculty Language Departments. Upon graduation a student is certified as having completed a combined Specialist Program in the two languages chosen. Enrolment in this program requires the completion of four courses; no minimum GPA required. The normal combinations are listed below; for combinations NOT listed students should consult the departments concerned.

See also the Language Citation Program, page 20.

## Modern_anguages and Literatures

## Specialist program:

(14-15 full courses or their equivalent)
Fourteen courses are required, seven in each subject with the following requirements:

## French (with German/Italian/ Portuguese/ Russian/

Spanish)
(8 courses)
Same as the Major Program in French Language and Literature

## German (with French/Italian/Russian/Spanish)

Same as the Major Program in German Studies
Italian (with French/German/Portuguese/Russian/ Spanish)
Same as the Major Program in Italian

## Polish (with French/German//Russian)

First Year:
SLA 106YI
Higher Years:
I. SLA $206 \mathrm{YI}, 2 \mathrm{I} 6 \mathrm{YI}, 306 \mathrm{HI}, 336 \mathrm{HII}$
2. Two courses from: SLA $226 \mathrm{HI}, 346 \mathrm{HI}, 356 \mathrm{HI}$, $406 \mathrm{YI} / 406 \mathrm{HI}, 4 \mathrm{I} 6 \mathrm{YI}, 424 \mathrm{HI}, 436 \mathrm{HI}, 446 \mathrm{HI}, 476 \mathrm{HI}$

## Portuguese (with French I/Italian/Spanish)

(7 courses)
Same as the Major Program in Portuguese

## Russian (with French/German/Italian)

See Slavic Languages \& Literatures for details.
Spanish (with French/German/Italian/Portuguese)
(7 courses)
First Year:
SPA I00YI/220YI; SPA 3I9YI (for native/bilingual speakers of Spanish)
Second Year:
SPA 220YI/320YI; SPA 420 HI (for speakers who have taken SPA 3I9YI in first year)
Third and Fourth Years:
I. SPA $320 \mathrm{YI}, 454 \mathrm{HI}$
2. SPA 450 HI or 452 HI
3. SPA 420 HI is recommended for students who start in SPA IOOYI
4. SPA 420 HI is required for students who start in SPA 220 Y I or higher language course; plus a 300/400-series half-course in language or linguistics
5. Plus additional SPA courses, including a half-course in Spanish American literature, to make seven courses. Up to one full-course equivalent may be taken from cognate departmental or college offerings: GGR, HIS, LAS, LIN, POL, PRT.A complete list of eligible courses is available from the

Undergraduate Coordinator. Students interested in Latin America are encouraged to take an introductory course in Portuguese (PRT IOOYI/IIOYI).

## Ukrainian (with French/German)

First Year:
SLA 108YI
Higher Years:
I. SLA 208YI, 218YI
2. Three courses, including at least one at the $300+$ level., from: SLA $228 \mathrm{HI}, 238 \mathrm{HI}, 248 \mathrm{HI}, 253 \mathrm{HI}, 308 \mathrm{YI}, 3 \mathrm{I} 8 \mathrm{HI}$, $328 \mathrm{HI}, 408 \mathrm{HI}, 4 \mathrm{I} 8 \mathrm{HI}, 4 \mathrm{I} 9 \mathrm{YI}, 428 \mathrm{YI}, 429 \mathrm{HI}, 438 \mathrm{HI}$, $448 \mathrm{HI}, 458 \mathrm{HI}, 468 \mathrm{HI}$. Courses in Ukrainian history may also be counted toward this programme.

## Given by Members of the Faculty of Music

## Faculty: Music History and Culture

University Professor Emeritus

A. Hughes, MA, D Phil (T)

Professors Emeriti
J. Beckwith, CM, M Mus, D Mus
R. Falck, MFA, Ph D
M.R. Maniates, MA, Ph D (V)
T. McGee, MA, Ph D
C. Morey, MM, Ph D (T)

Professor
G.Averill, MA, Ph D
J. Kippen, Ph D (T)

## Associate Professors

W. Bowen, MA, Ph D (S)
R. Elliott, MA, Ph D
J. Haines, MA, Ph D
G.S. Johnston, MA, Ph D
G.G. Jones, MA, Ph D (U)
M.A. Parker, MM, Ph D (M)

## Assistant Professors

Celia Cain, AM, Ph D
Faculty: Musical Theory and Composition

## Professors Emeriti

D. Beach, Mus M, Ph D
J. Beckwith, CM, M Mus, D Mus
W.J. Buczynski
G. Ciamaga, MFA
D. Holman, D Mus
T. Kenins, B Litt
E. Laufer, Mus M, MFA
O. Morawetz, O Ont., Mus D
P. Pedersen, M Mus, Ph D

## Professors

K.N. Chan, Mus M, D Mus
C. Hatzis, M Mus, Ph D

Assistant Professor
R. McClelland, Ph D

## Senior Lecturers

J. Kruspe, Mus Bac
G. Kulesha
D. Patrick, Mus M
M. Sallmen, MA, Ph D
W.Wright, M Div

## Lecturers

A. Rapoport, MA, Ph D
L. Kuzmenko, Mus Bac

## Faculty: Peformance

## Associate Professors

G. MacKay, M.Mus,D.M.
S. Ralls, MA, ARAM
D. Rao, Mus M

## Senior Lecturer

J. Reynolds, M Mus, Ph D

Lecturer
R. Armenian, Hon Doc, OC

In the Faculty of Arts and Science, Music is approached as one of the liberal arts and taught as cultural history. This humanistic emphasis aims at a high degree of correlation with other disciplines such as Fine Art, Cultural Anthropology, Languages and Literatures, History, and Philosophy.

The courses with the prefix MUS are open to any student of the University. Even students with a strong music background should find them stimulating explorations of the world of music.

Students wishing to enter the Specialist /Major Program should examine the courses listed under HMU History of Music and TMU Theory of Music. First-year specialist/major courses are available to a small number of students, who are admitted to them by audition and interview during Registration week. Those interested in ethnomusicology and the study of world music may audition on the basis of their comparable accomplishments in a non-Western instrumental or vocal performing tradition. All students are required to have completed Grade 2 Rudiments and Grade 3 Harmony from the RCM or acceptable equivalents as prerequisites, prior to the audition-interview. Knowledge of Western music history and theory ensures that students are not disadvantaged when facing the curricular requirements of the program. In this program the humanistic and historical approach is supported by courses in music theory which provide craft and analytical tools. The Specialist Program provides excellent preparation for a variety of professional activities including music criticism, library science, positions in the publishing, broadcasting, and recording industries, as well as for graduate studies in musicology and ethnomusicology leading to careers in university teaching. The program leads to the degree of Bachelor of Arts (honours). For programs leading to the degree of Bachelor of Music, the student should consult the Calendar of the Faculty of Music.
Students are encouraged to attend events sponsored by the Faculty of Music such as the Thursday Noon and Faculty Artists' Series, opera productions and numerous concerts. For information refer to www.music.utoronto.ca or telephone 416-978-3744.

Faculty of Music Representative: Professor G.Johnston, Coordinator (416-978-3750)

Enquiries: Admissions Officer, Edward Johnson Building, Room 145 (4I6-978-374I); e-mail..undergrad.music@utoronto.ca

## Music Programs

Enrolment in HMU and TMU courses, and, therefore, in the Specialist and Major programs, is limited to students who pass the audition-interview, held on Tuesday, September 4, 2007. Students are required to complete and submit the Student

## Music

Profile available on-line at www.music.utoronto.ca prior to August 23, 2007. Hardcopies are available from the Faculty of Music Registrar's Office. You will then be assigned an audition time. Prospective candidates must perform at the Royal Conservatory of Music Grade Eight level, and demonstrate that they have Grade Two Rudiments and Grade Three Harmony or equivalents. Students interested in pursuing the major or specialist with the Ensemble option are required to pass an additional audition-interview for ensemble placement. Please refer to MUS I20Y. An information sheet is available at the Faculty of Music. (This is not required for the Music Minor program, see below.)

## Music (Arts program)

## Specialist program:

(IO full courses or equivalent, including three 300+ level courses and one 400+ level course)

## First Year:

HMU IIIHI,TMU I40YI, one 100 - level course in a language other than English
Higher Years:
I. HMU $225 \mathrm{HI}, 226 \mathrm{HI}$
2. HMU $330 \mathrm{HI}, 33 \mathrm{IHI}, 333 \mathrm{HI}, 430 \mathrm{HI}, 43 \mathrm{IHI}, 432 \mathrm{HI}, 433 \mathrm{HI}$
3. TMU 240 YI and a half-course in advanced theory (TMU)
4. Three half-courses in history electives (HMU)

NOTE: Part-time students will satisfy co-requisites by taking courses in the following order:TMU I4OYI, HMU IIIHI, TMU 240 Y , HMU $225 \mathrm{HI}, 226 \mathrm{HI}$

## Specialist with Ensemble Option program:

(I0.5 full courses or equivalent, including three 300+ level courses and one 400+ level course)

## First Year:

HMU IIIHI, MUS I20YI,TMU I4OYI, one IOO-level course in a language other than English
Higher Years:
I. HMU $225 \mathrm{HI}, 226 \mathrm{HI}$
2. Three-and-a-half full courses in history electives (HMU), including two full credits of topic courses from the list HMU $330 \mathrm{HI}, 33 \mathrm{IHI}, 333 \mathrm{HI}, 430 \mathrm{HI}, 43 \mathrm{IHI}, 432 \mathrm{HI}, 433 \mathrm{HI}$
3. TMU 240 Y I and a half-course in $300+$ level theory (TMU)
4. MUS 220YI

NOTE: Part-time students will satisfy co-requisites by taking courses in the following order:TMU I4OYI, HMU IIIHI, TMU 240 Y , HMU $225 \mathrm{HI}, 226 \mathrm{HI}$

## Major program:

(7 full courses or equivalent, including at least two 300+ level courses)

## First Year:

HMU IIIHI,TMU I40Y|
Higher Years:
I. $\mathrm{HMU} 225 \mathrm{HI}, 226 \mathrm{HI}$ and three further half-courses in history electives (HMU)
2. TMU 240 YI and a half-course in advanced theory (TMU)
3. I.5 additional HMU/TMU courses

Major with Ensemble Option program:
(7.5 full courses or equivalent, including at least two 300+ level courses)
First Year:
HMU IIIHI,MUS I20YI,TMU I40YI
Higher Years:
. HMU $225 \mathrm{HI}, 226 \mathrm{HI}$
2. TMU 240YI
3. 2.0 additional HMU/TMU electives
4. MUS 220YI

## Music History and Culture (Arts program)

## Minor program:

(4 full courses or equivalent)
I. MUS IIOHI, IIIHI
2. MUS 200 HI or an alternative 200 -level course in world music (MUS 209 HI or MUS 21 IHI )
3. 2.5 MUS courses from the list below, including one full course at the 300+ level. Either MUS I20YI or MUS 220 YI can be counted towards the 2.5 MUS courses

## Music Courses

See page 33 for Key to Course Descriptions.)
For Distribution Requirement purposes (see page 27), HMU, MUS,TMU courses are classified as HUMANITIES courses.

## MUSIIOHI Introduction to Music History 26L

 and CultureIntroduction to form, style and the interrelationships of music and culture. A basic ability to read music is required. Exclusion: HMUIIIHI,VPMA80H3

MUSIIIHI Historical Survey of Western Music 26L Historical survey of Western art music from the Middle Ages to the present. A basic ability to read music is required.
Exclusion: HMUIIIHI

## MUSI20YI Vocal and Instrumental

## Ensembles I

Students rehearse and perform in concerts and reading sessions as assigned by the Faculty of Music. Provides experience in choral groups, orchestra, or in concert band and large wind groups of diverse instrumentation. Development of musicianship skills through performance of large ensemble works; emphasis on sight-reading, ear-training, and musical knowledge.
Attendance at all sessions is required. Placement audition and permission of the Department required.
Download the excerpt that is relevant to the instrument you would like to audition on; excerpts will be available at www. music.utoronto.ca beginning early July. Complete and return the MUSI20YI \& MUS220YI Audition Request Form before August 23. Once your request form is received, you will be notified of your audition time. Placement audition will be held on Thursday, September 6, 2007 from 6-10 p.m. in the Edward Johnson Building. The audition will be 10 minutes in length.
Exclusion: MUS29IYI
MUS200HI Music of the World's Peoples 26L
A survey of musical traditions from various regions of the world, with particular emphasis on the sociocultural contexts in which those musics are created and appreciated. No prior background in music or ability to read music is required Exclusion: HMUIIIHI,VPMA99H3

MUS220YI Vocal and Instrumental I56P Ensembles II
Students rehearse and perform in concerts and reading sessions as assigned by the Faculty of Music. Provides experience in choral groups, orchestra, or in concert band and large wind
groups of diverse instrumentation. Development of musicianship skills through performance of large ensemble works; emphasis on sight-reading, ear-training, and musical knowledge.
Attendance at all sessions is required. Placement audition and permission of the Department required.
Download the excerpt that is relevant to the instrument you would like to audition on; excerpts will be available at www. music.utoronto.ca beginning early July. Complete and return the MUSI20YI \& MUS220YI Audition Request Form before August 23. Once your request form is received, you will be notified of your audition time. Placement audition will be held on Thursday, September 6, 2007 from 6-10 p.m. in the Edward Johnson Building. The audition will be 10 minutes in length.
Prerequisite: MUS I20YI. Placement audition and permission of the Department required.

MUS230HI Music of the 1960s 26L
Examination of musical and cultural aspects of the decade, with emphasis on North America. No prior background in music or ability to read music is required.
Exclusion: HMUIIIHI
MUS3I5HI North American Vernacular Music 26L Explores vernacular music in North America, considering how musical performances and festivals of vernacular music map local, regional, and ethnic identities in North America. Specific case studies will include Scottish Highland, Tejano Conjunto, Metis Fiddling, Powwow, and Zydeco. No prior background in music or ability to read music is required. Exclusion: HMUIIIHI
MUS408HI Wagner

An introduction to his music dramas and to the influences of his music and writings, from his day to ours. No prior background in music or ability to read music is required. Exclusion: HMUIIIHI.
ABS330YI Aboriginal Music:Technical and Theoretical Aspects
See "Aboriginal Studies"

## Future Offerings:

| MUS202HI | Beethoven |
| :--- | :--- |
| MUS204HI | The Age of Bach |
| MUS205HI | Mozart |
| MUS206HI | The World of Opera |
| MUS207HI | Music for the Orchestra |
| MUS208HI | Medieval and Renaissance Masterpieces |
| MUS209HI | Performing Arts of South Asia |
| MUS2IIHI | The World of Popular Music |
| MUS225HI | Music: Islamic World |
| MUS300HI | Music, Media \& Technology |
| MUS302HI | Symphony |
| MUS303HI | Music in the Contemporary World |
| MUS306HI | Popular Music in North America |
| MUS308HI | Handel |
| MUS325HI | The Age of Haydn \& Mozart |

MUS204HI The Age of Bach
MUS205HI Mozart
MUS206HI The World of Opera
MUS207HI Music for the Orchestra
MUS208HI Medieval and Renaissance Masterpieces
MUS209HI Performing Arts of South Asia
MUS2IIHI The World of Popular Music
MUS225HI Music: Islamic World
MUS300HI Music, Media \& Technology
MUS302HI Symphony
MUS303HI Music in the Contemporary World
MUS306HI Popular Music in North America
MUS308HI Handel
MUS325HI The Age of Haydn \& Mozart

# HMU,TMU Faculty of Music Courses 

HMUIIIHI 26L, I3T

An examination of musical thought and practice in Western and non-Western traditions.
Prerequisite: Permission of Department
Co-requisite:TMUI40YI
TMUI40YI Materials of Music I 52L, 78P
Harmony: triads, non-harmonic materials, dominant seventh and derivatives, secondary dominants, simple modulation. Elementary forms and analysis of eighteenth- and nineteenthcentury literature. Sight singing: melodic, rhythmic and harmonic dictation. Keyboard harmony: chords and scales in all major and minor keys; playing of cadence types, modulation to closely related keys, realization of elementary figured bass, two-part transposition, score reading in five clefs, and sight harmonization of simple melodies.
Prerequisite: Grade 2 Rudiments, Grade 3 Harmony
(RCMT), Grade 8 level performing audition, permission of Department
Co-requisite: HMUIIIHI

## Note

HMU IIIHI and TMU I40YI are prerequisites for all other HMU/TMU courses which are offered annually. Full details on these and other courses may be found in the Calendar of the Faculty of Music.

## Faculty

## Professors Emeriti

E. Birnbaum, BA, Dipl OAS
J.R. Blackburn, MA, Ph D
P.E. Dion, L Th, L SS, Ph D
L.R. Garshowitz, MA, PhD
L.V. Golombek, MA, Ph D, FRSC
A.K. Grayson, MA, Ph D, FRSC
J.S. Holladay, BS, BD, Th D
A. Jwaideh, MA, B Litt, D Phil
E.J. Keall, BA, Ph D
L.M. Kenny, MA
R.T. Lutz, MA
M.E. Marmura, MA, Ph D, FRSC
G.M. Meredith-Owens, MA
A. Pietersma, BA, BD, Ph D
D.B. Redford, MA, Ph D, FRSC
E.J. Revell, MA, Ph D, FRSC (V)
R. Sandler, MA, Ph D
R.M. Savory, MA, Ph D, FRSC (T)
R.F.G. Sweet, MA, Ph D
J.W.Wevers, BA, Th D, DD, DHC, FRSC

Associate Professor and Chair
L.S. Northrup, MA, Ph D

## Professors

A. Harrak, MA, Ph D
R.J. Leprohon, MA, Ph D
J.A. Reilly, MA, Ph D (U)
M.E. Subtelny, BA, Ph D
M. Tavakoli-Targhi, MA, Ph D

Associate Professors
P-A. Beaulieu, MA, Ph D
H. Fox, MS, Ph D
K. Goebs, MA, Ph D
S. Green, MA, Ph D
K.A. Grzymski, MA, Ph D
S.E. Günther, MA, Ph D
T.P. Harrison, MA, Ph D
A. Hassanpour, MA, Ph D
B.T. Lawson, MA, Ph D
T. Meacham, MA, Ph D
S. Metso, MA, Ph D
H. Najman, MA, Ph D (U)
V. Ostapchuk, BA, Ph D

## Assistant Professors

J.P. Hanssen, BA, D. Phil
R.D. Holmstedt, MA, Ph D
A. Mittermaier, MA
W. Saleh, MA, Ph D (U)
M.A.Wegner, BA, Ph D

## Lecturers

A.K.Ali, MA, Ph D
B.Walfish, MA, Ph D

The Department of Near and Middle Eastern Civilizations is concerned with the interdisciplinary study of the civilizations and cultures of the Near and Middle East from neolithic times until the present, including their languages and literatures Akkadian (Assyro-Babylonian), Arabic, Aramaic and its closely related dialect Syriac, ancient Egyptian, (biblical, rabbinic, mediaeval and modern) Hebrew, (Hellenistic) Greek, Persian and Turkish, archaeology, history, art and architecture. Near East is generally understood to refer to the region at the eastern end of the Mediterranean and beyond, from ancient times up to the advent of Islam in the seventh century C.E. Middle East refers to a much broader geographical area whose predominant Islamic culture in mediaeval and modern times has stretched to North Africa and Spain in the west and to Central Asia, India and South Asia in the east. The Department's programs are conceived in the broad tradition of the humanities and provide an opportunity to study non-western complex societies and civilizations, an understanding of which will reveal the ultimate roots, and help to appreciate the historical development, of western civilization.

As it happens, three world religions originated in this geographical region. The Department offers courses on the origins and earliest phases of Judaism and, as a contributor to the Jewish Studies Program, on mediaeval and modern Jewish history, culture and thought, even though such pursuits sometimes lead to Europe and other places beyond the Middle East. Although the Department deals with eastern (Syriac) Christianity, the study of Christianity as a religion falls within the purview of the Department for the Study of Religion. The study of Islam as a religion and the development of Islamic thought, and their role in the creation of Islamic civilization, are major concerns of the Department.

NMC IOIYI introduces students to the ancient Near East. NMC 20IYI presents an historical and thematic survey of the civilizations and cultures of the mediaeval and modern Middle East and provides background necessary for comprehending the complex issues facing that region today. Students particularly interested in the world and/or religion of Islam should start with NMC 185HI.

Students wishing to follow a Specialist program should choose their courses with the advice of the Undergraduate Coordinator. Those intending to proceed to a graduate degree in a particular area will obviously want to concentrate their course choices in that area and would do well to acquire a reading knowledge of German and French as early as possible. Some knowledge of anthropology and a course or two in linguistics would be useful. The Department, however, welcomes students of all academic backgrounds who wish to learn about the Middle East, including those who do not intend to specialize or major. Many courses offered in the Department do not require any knowledge of the languages of the region. Students should consult the Department's website www.utoronto.ca/nmc for more detailed information about courses and programs.

Undergraduate Enquiries: 4 Bancroft Avenue, Room 200, (416-978-3306)

## Near and Middle Eastern Civilizations Programs

Enrolment in NMC programs is open to anyone who has completed four courses; no minimum GPA required. Specialized streams of study within the general programs can be recommended in consultation with the Undergraduate Coordinator.

Near and Middle Eastern Civilizations (Arts program)

## Specialist Program:

II full courses or their equivalent, including at least four 300+ series courses, one of which must be a 400 -series course. At least 9 must be NMC and/or NML courses. Others may be taken only from a list of pre-approved courses offered by other departments. See departmental web site for details.
First Year:
NMC I0IYI/I85HI (formerly NMCI85YI)/20IYI. It is recommended that language instruction begin in first year, if possible.
Higher Years:
I. Four courses in Language (original language; not literature in translation)
2. Three courses in History and/or Religion and Philosophy
3. Two courses in Archaeology and/or Art and Material Culture
4. One additional course

Major program:
6 full courses or their equivalent, including at least two 300+ series courses. At least 5 must be NMC and/or NML courses. Others may be taken only from a list of pre-approved courses offered by other departments. See departmental web site for details.
N.B.Admission to a Graduate Program in NMC requires the applicant to have acquired a background in languages.

## Minor program:

4 full courses or their equivalent, including at least one 300+ series course. All 4 must be NMC and/or NML courses.

## Near and Middle Eastern Civilizations Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), all NMC courses except NMC 465 HI and 462 YI are classified as HUMANITIES courses.

HUMI99HI/ First Year Seminar $52 S$
YI
Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course but not a program requirement; see page 47.

NMCIOIYI The Ancient Near East<br>78L

Introduction to the archaeology, history and literature of the ancient Near East. The contributions made by the Egyptians, Babylonians and Assyrians to the development of civilization. Exclusion: NMC $370 \mathrm{YI} / 343 \mathrm{HI} / 344 \mathrm{HI} / 346 \mathrm{HI} / 347 \mathrm{HI}$ may not be taken in the same year,
NMC20IYI Islamic Culture and Civilization 52L
This course acquaints students with the main features and legacies of the civilization that was formed in the Middle East in the 8th-IOth centuries C.E. under the impetus of Islam, and marked by several highpoints before the early modern period. Continuity with the earlier civilizations of the ancient Near East are highlighted, and the diverse cultural traditions that contributed to the formation of Islamic civilization are described.

## Language Courses

## Note

The Department reserves the right to place students in the NMC language course best suited to their linguistic preparation.

## Akkadian

NML305YI

## Introductory Akkadian

(formerly NMC305YI)
Introduction to Old Babylonian. Grammar and the reading of selected texts. (Offered in alternate years)
Prerequisite: Arabic or Hebrew, normally NMCI36YI/2IOYI/ $230 \mathrm{YI} / \mathrm{NMLI} 55 \mathrm{HI} / \mathrm{I} 56 \mathrm{HI} / 210 \mathrm{YI} / \mathrm{I} 50 \mathrm{Y} \mathrm{I}$
Exclusion: NMC305YI
NML405YI Intermediate Akkadian
(Offered in alternate years)
Prerequisite: NML305YI/NMC305YI
Exclusion: NMC405YI

## Arabic

NML2IOYI Introductory Standard Arabic 78L,26P (formerly NMC2IOYI)
Introduction to the grammar and basic vocabulary of standard or literary Arabic, the one language written and read, and also spoken by those educated to speak it, throughout the Arab world.
Exclusion: Native users/NMC2IOYI. Priority enrollment will be given to declared NMC majors/specialists.

## NML3IOYI Intermediate Standard Arabic 78L,26P (formerly NMC3IOYI)

Begins with a review of basic grammar and proceeds with the reading of simple, connected prose passages that typify normal patterns of Arabic syntax. More literary and idiomatic passages are introduced gradually.
Exclusion: Native users/NMC3IOYI. Priority enrollment will be given to declared NMC majors/specialists.
Prerequisite: NML2IOYI/NMC2IOYI
NML4IOYI Advanced Standard Arabic
Connected passages of Arabic texts drawn from both classical and modern times are studied in detail.

## Near and Middle Eastern Civilizations

Exclusion: NMC4IOYI; Native users of Arabic must obtain permission of instructor.
Prerequisite: Two years of Arabic
NML4IIHI Readings in Arabic Newspapers (formerly NMC4IIHI)
Directed readings of passages drawn from well-known Arabic newspapers such as: al-Ahram (Egypt), al-Ra'y (Jordan), al-Safir (Lebanon), al-Khalij (UAE), and al-Haya (UK). The course is designed to make advanced students of Arabic familiar with the language, style and topics of the Arabic Press.
Exclusion: NMC4IIHI; Native users of Arabic must obtain permission of instructor.
Prerequisite: NML3IOYI/NMC3IOYI or adequate reading knowledge of Arabic
NML4I2YI Survey of Classical Arabic 52 S

## Literature <br> (formerly NMC4I2YI)

Systematic outline of the development, characteristics, and peculiarities of selected genres of classical Arabic literature such as historiography, belles-lettres (adab), philosophy, ethics - Qur'an, exegesis, Literature of Tradition - poetry. Complementary readings, analysis and translation of original text passages are given emphasis.
Prerequisite: Two years of Arabic or adequate reading knowledge
Exclusion: NMC4I2YI

## NML4I3HI Islamic Thought in Mediaeval Arabic Sources

(formerly NMC4I3HI)
Insights into the history of ideas in Islam. Original texts by Jurjani (d. I078, literary criticism), Ghazali (d. I I II, philosophy), Ibn Rushd (d. I I96, law), Shahrastani (d. II53, heresiography), Ibn Taymiyah (d. I328, dogmatics), and Ibn Khaldun (d. I406, social history). (Offered in alternate years)
Prerequisite: Adequate reading knowledge of Arabic
Exclusion: NMC4I3HI

## NML4I4HI Qu'ranic Arabic 26L

This course offers students of Arabic the opportunity to study more closely the text of the Qur'an. The course will focus on the Arabic language of the Qur'an and its function both semantically and aesthetically. Selected Qur'anic passages will be examined in detail.
Prerequisite: Completion of Advanced Arabic, or equivalent qualification determined by the Department. Permission of the instructor is required.

NML 4I5HI The Structure of Arabic Language 26L
This course is an investigation of the formal properties of Modern Standard Arabic. Its primary goal is to provide the student with an in depth knowledge of the grammar of the language. To this end, the course makes use of concepts and tools of analysis common to contemporary generative linguistics.
Prerequisite: Knowledge of Arabic language is beneficial but not required.

## Aramaic/Syriac

$\begin{array}{ll}\text { NML220YI } & \begin{array}{l}\text { Introductory Aramaic } \\ \text { (formerly NMC3I5YI) }\end{array}\end{array}$
Introduction to Aramaic grammar. Readings from biblical
Aramaic. (Offered in alternate years)
Prerequisite: Introductory Biblical Hebrew (NMC230YI/
NMLI50YI)
Exclusion: NMC3I5YI
NML320HI Intermediate Aramaic:Targum 39S (formerly NMC4I5HI)
An intensive study of various Targumim to the Pentateuch: Onkelos, Pseudo-Jonathan, Neophyti, Samaritan and Fragment Targumim. Differences among them in vocabulary, syntax and verb usage are discussed, as well as their relationship to the Palestinian midrashim. (Offered in alternate years)
Prerequisite: NML220YI/NMC3I5YI
Exclusion: NMC4I5YI/NMC4I5HI
NML420YI The Jerusalem Talmud: 52 S Jewish Western Aramaic (formerly NMC4I6YI)
The Talmud of the Land of Israel, also called Talmud Yerushalmi or Palestinian Talmud, is written in a mixture of Jewish Western Aramaic and Mishnaic Hebrew. It is the principal document of the Land of Israel in Late Antiquity. The course examines the legal argumentation, terminology and language which differ from those of the Babylonian Talmud. (Offered in alternate years) Prerequisite: Permission of instructor
Recommended preparation: NMC3I5YI/334YI/NML220YI/ 320H
Exclusion: NMC4I6YI
$\begin{array}{ll}\text { NML42 I YI } & \begin{array}{l}\text { Classical Syriac } \\ \text { (formerly NMC4I8YI) }\end{array}\end{array}$
(Offered in alternate years)
Prerequisite: NMC3I5YI/NML220YI
Exclusion: NMC4I8YI

## Coptic

NML230HI Elementary Coptic I 26L (formerly NMC220H)
Introduces the student to the last stage of the Egyptian language, written mostly in Greek characters. The course will first concentrate on the grammar of the language and go on to read short texts.
Exclusion: NMC220H
NML23IHI Elementary Coptic II
26L
A continuation of NML230HI, Elementary Coptic I.

## (Ancient) Egyptian

NML240YI Introduction to Middle Egyptian 78S (formerly NMC320YI)
Grammar and reading of selected hieroglyphic texts. Exclusion: NMC320YI

## NML24IYI Ancient Egyptian Iconography

 (formerly NMC32IHI)This course deals with the recognition and interpretation of ancient Egyptian symbols and the representations of divine and royal figures as preserved in the epigraphic record.
Prerequisite: NMC320YI/NML240YI
Exclusion: NMC32IH
$\begin{array}{ll}\text { NML340YI } & \begin{array}{l}\text { Intermediate Egyptian } \\ \text { (formerly NMC420YI) }\end{array}\end{array}$
Middle Egyptian texts.
Prerequisite: NMC320YI/NML240YI
Exclusion: NMC420YIY
NML440Y Ancient Egyptian Historical Texts 26L
Texts of significance for the reconstruction and understanding of Egyptian History will be read in the original, and analyzed for content, style, and grammar. The social and archaeological context of these texts will also receive attention.
Prerequisite: NML340YI (formerly NMC420YI)

## NML44IY Ancient Egyptian Religious and Funerary Texts

Readings, analysis, and comparisons of selections from the Pyramid Texts, the Coffin Texts, and the New Kingdom mortuary literature; study of cultic, magical, and mythological texts relating to funerary and cultic beliefs and practices. All texts to be read in the original.
Prerequisite: NMC340YI (formerly NMC420YI)

## Hebrew

NMLI50YI Introductory Biblical Hebrew 78S (formerly NMC230YI)
An introduction to biblical Hebrew prose. Grammar and selected texts. For students with no previous knowledge of Hebrew.
Exclusion:Those who have completed Grade 8 Hebrew (or Grade 6 in Israel)/NMC230Y।

## NMLI55HI Elementary Modern Hebrew I 39L, 26P

 (formerly NMC236HI)Introduction to the fundamentals of Hebrew grammar and syntax through classroom and language laboratory practice. Emphasis on the development of oral and writing skills. (Offered in alternate years)
Exclusion: Those who have completed Grade 4 Hebrew (or Grade 2 in Israel), NMCI36Y/NMC236HI

## NMLI56HI Elementary Modern Hebrew II 39L, 26P (formerly NMC237HI)

Introduction to the fundamentals of Hebrew grammar and syntax through classroom and language laboratory practice. Emphasis on the development of oral and writing skills. (Offered in alternate years)
Prerequisite: NMLI55H/NMC236HI or permission of instructor
Exclusion:Those who have completed Grade 4 Hebrew (or Grade 2 in Israel), NMCI36Y/NMC237HI
NML250YI Intermediate Biblical Hebrew (formerly NMC330YI)
Study of Hebrew grammar, providing a continuation of NMC230Y/NMLI50YI.Through extensive reading of Hebrew in the books of Joshua-2 Kings, grammar is reviewed and
consolidated, and vocabulary expanded. (Offered in alternate years)
Prerequisite: OAC Hebrew/NMC230YI/NMLI50YI
Exclusion: NMC330YI
NML25IYI Intermediate Biblical Hebrew: Pentateuch (formerly NMC333YI)
Study of Hebrew grammar, providing a continuation of NMC230YI/NMLI50YI.Through extensive reading of Hebrew in the books of Genesis-Deuteronomy, grammar is reviewed and consolidated, and vocabulary expanded. (Offered in alternate years)
Prerequisite: OAC Hebrew/NMC230YI/NMLI50YI
Exclusion: NMC333YI
NML255YI Intermediate Modern Hebrew 78 S
(formerly NMC236HI, NMC237HI/ NMC336YI)
Intensive study of written and spoken Hebrew. (Offered in alternate years)
Exclusion:Those who have completed Grade 8 Hebrew (or
Ulpan level 2 in Israel), NMC236HI/237HI/336YI
Prerequisite: NMCI $36 \mathrm{YI} / \mathrm{NMLI} 56 \mathrm{HI}$

## NML350YI Advanced Biblical Hebrew

 (formerly NMC430HI/YI)Advanced Biblical Hebrew language, focusing on grammar through an extensive reading of the Hebrew Bible.
Prerequisite: At least 2 years of Biblical Hebrew; permission of instructor
Exclusion: NMC430HI/430YI
NML35IH History Writings 26L
This course examines ancient Israel's history writers, focusing on the Deuteronomistic History and the Chronicler's History. Attention will be given to linguistic forms, rhetorical style and goals, and comparison of national or ethnic self-perceptions.
Prerequisite: NMC230YI/NMLI50YI

## NML352HI Myth and Story 26L

An investigation of two closely related types of ancient Hebrew narrative: myth and story. Focus will be equally on Hebrew language, rhetorical style and goals, and when appropriate, the comparative ancient near eastern backdrop for the Hebrew texts.
Prerequisite: NMC230YI/NMLI50YI
NML353HI Jewish Apocalyptic Literature 26L
This course provides an introduction to the study of the origin, form and function of ancient Jewish and related apocalyptic literature which flourished between 200 BCE and 200 CE, understood in its cultural and literary contexts.
Exclusion: RLG325HI
Prerequisite:: NMCI50HI/I5IHI/280HI/280YI
NML 354HI Law and Ritual
Law reflects the way in which society understands and organizes itself through common agreements and forms of restraint. This course examines the different ways religious and ritual legislation was generated in ancient Jewish communities and the different functions such legislation served in these communities. All texts to be read in the original. Prerequisite: NML 250YI

## Near and Middle Eastern Civilizations

## NML355YI Advanced Modern Hebrew $52 S$ (formerly NMC336HI/337HI/434YI)

Advanced intensive study of written and spoken Hebrew.
(Offered in alternate years)
Prerequisite: NMC336YI
Exclusion: OAC Hebrew, old numberings NMC $336 \mathrm{HI} / 337 \mathrm{HI} /$ 434YI

## NML356YI Babylonian Talmud 52S <br> (formerly NMC334YI)

Selections from a tractate in Babylonian Talmud in order to gain facility in the understanding of the dialogic structure of the legal discussions. Practice in the use of classical commentaries and critical aids to allow independent study of the text. (Conducted in Hebrew) (Offered in alternate years)
Prerequisite: OAC Hebrew/NMC237HI/230YI/NMLI50Y/I56H

## NML357HI Midrash Aggadah

26L
The themes of Eros and Thanatos will be explored in Aggadic texts from Song of Songs Rabbah. This Midrashic text stands halfway in the tradition, both making use of earlier texts and being used by editors of later compilations. These interrelations will be the focus of our study as well as the relationship of work to Scripture.
Prerequisite: Intermediate Hebrew (Modern or Biblical)

## NML358HI Mishnah and Tosefta <br> (formerly NMC33IHI)

Introduction to Mishnah and Tosefta, two of the three foundational documents of Middle Hebrew. In addition to studying specific features of this level of Hebrew, examining these compositions independently, and analyzing their interaction, students will examine current scholarly literature on these documents and their relationship to each other. (Offered in alternate years)
Prerequisite: Intermediate Hebrew (Modern or Biblical) Exclusion: NMC33 IHI

## NML359HI Prophecy <br> (formerly NML453HI)

An examination of different concepts of prophecy in the Hebrew Bible and in later Second Temple traditions, such as Dead Sea Scrolls, Hellenistic Jewish writings, and early Christian writings.
Exclusion: NML453HI
Prerequisite: Advanced reading knowledge of Hebrew/Aramaic.
NML450YI Topics in Advanced Biblical Hebrew $26 S$ Students will address special topics in Biblical Hebrew grammar. Prerequisite: NML350YI
NML45IHI Advanced Babylonian Talmud I3S Students will be introduced to the problems of text criticism involving variant readings and the redaction of Talmudic texts. Problems of transmission of the text, its relationship to the Palestinian Talmud, Tosefta and other texts will be explored. Use of Medieval Talmudic commentaries will be addressed. Prerequisite: Intermediate Hebrew (Modern or Biblical)

## NML452HI Halakhic Midrashim (formerly NMC432HI)

This course familiarizes students with the methodology and terminology of the two midrashic systems: Devei R.Akiba and Devei R. Ishmael. Sections of all the midrashic halakha (Mekhiltot, Sifra and Sifre) are studied and compared to other Tannaitic materials. (Conducted in Hebrew) (Offered in alternate years)

Prerequisite: Intermediate Hebrew (Modern or Biblical)/ Permission of instructor
Exclusion: NMC432YI/NMC432HI
NML454HI Midrash Before the Rabbis 26L
An examination of how the Bible was interpreted in the closing centuries BCE and the first century CE, beginning with the Book of Jubilees. This text will be read in combination with related material from the Dead Sea Scrolls and the Biblical Apocrypha and Pseudepigrapha.
Prerequisite:Two years of Biblical Hebrew or Aramaic or Greek; or permission of instructor

## NML455HI Modern Hebrew Poetry I3S

A study of the poetic works of a major modern Hebrew poet. (Conducted in Hebrew) (Offered in alternate years) Prerequisite: Permission of instructor

## NML456HI Modern Hebrew Prose $13 S$

A study of an important modern writer of Hebrew fiction. (Conducted in Hebrew) (Offered in alternate years)
Prerequisite: Permission of instructor

## NML457HI Introduction to Comparative 26S Semitics

Advanced language course placing ancient Hebrew within its geographic and typological context. Priority will be given to I) methods used to reconstruct "proto-Semitic" and ancient Hebrew (versus the Tiberian Hebrew of the Hebrew Bible); 2) classifications of Semitic languages; 3) comparison of phoneme and lexical inventories, morphology and syntax; and 4) dialectal variation and dialect geography.
Prerequisite: permission of instructor.
Recommended Preparation: NMLI50YI, 250YI, and one NML 300-series course

## Persian

NML260YI Introductory Persian

## (formerly NMC240YI)

The fundamentals of modern standard Persian grammar, with emphasis on attaining fluency in reading and writing simple texts. Also serves as a basis for classical Persian. (Offered in alternate years)
Exclusion: Native users/NMC240YI. Priority enrollment will be given to declared NMC majors/specialists

NML360YI Intermediate Persian 78S (formerly NMC340YI)
Reading of a variety of modern prose texts on the intermediate level, with an emphasis on grammatical analysis and translation. Introduction to the classical language in the second term, with readings from selected authors. (Offered in alternate years)
Exclusion: NMC340Y/Native users. Priority enrollment will be given to declared NMC majors/specialists
Prerequisite: NMC240YI/NML260YI
NML460YI Classical Persian Literature 52 S (formerly NMC44IYI)
Introduction to classical Persian poetry, including the Persian
national epic and the mystical tradition, and survey of the
development of classical Persian prose, based on readings from selected authors. (Offered in alternate years)
Prerequisite: NMC340YI/NML360YI or adequate knowledge of Persian
Exclusion: NMC44IYI

## NML46IHI Modern Persian Poetry (formerly NMC442HI)

A survey of modern Persian poetry using connected passages of Persian texts.
Prerequisite: NML360YI/NMC340YI or adequate reading knowledge

## NML462HI Modern Persian Prose 26L

(formerly NMC443HI)
A survey of modern Persian prose using connected passages of Persian texts.
Prerequisite: NML360YI/NMC340YI or adequate reading knowledge

Turkish

| NML270YI | Introductory Turkish <br> (formerly NMC245YI) |
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The basic features of modern Turkish grammar. In the second term, Turkish prose and newspapers are studied, with some practice in writing simple Turkish. This course serves as a basis for the study of Ottoman Turkish. (Offered in alternate years) Exclusion: Native speakers/NMC245YI

## NMC370YI Intermediate Turkish <br> (formerly NMC345YI)

Modern texts literary, scholarly and journalistic. Turkish grammar and syntax; the nature of Turkish culture. (Offered in alternate years)
Prerequisite: NMC245YI/NML270Y or adequate reading knowledge of Turkish
Exclusion: NMC345YI

## Literature in Translation Courses

NMCI50HI Hebrew Bible and Ancient Jewish Literature in Translation (formerly (NMC280Y/280HI)
An introduction to the critical study of the Hebrew Bible/Old Testament and related literature of ancient Jewish communities (Apocrypha, Pseudepigrapha, Dead Sea Scrolls). No prior work in biblical studies or knowledge of Hebrew is required. Exclusion: NMC280HI/280YI

NMCI5IHI The Bible and Its Interpreters 26L
Acquainting students with the principal parts of the Hebrew Bible and studying some of the different ways in which it has been read and interpreted in various periods, from antiquity to modern times, the course will concentrate on the central biblical figures whose stories will be examined in the ancient Israelite context, then compared with later elaborations by Jewish and Christian interpreters.
NMC25IHI Ancient Egyptian Literary Texts 26L
Explores a variety of different genres of ancient Egyptian literature, including wisdom literature, funerary texts, poetry, stories and other literary texts. Prior attendance of an introductory history and culture course such as NMCIOIYI may be helpful, but is not required.

NMC252HI Ancient West Semitic Literature 26L
Introduction to the epic, religious, and historical texts that provide the immediate religious, social, and political backdrop for ancient Israel and its most prominent textual product, the Bible. Texts will be studied in translation.
Recommended preparation: NMC I50Y.

## NMC253HI Ancient Egyptian Cultural Texts 26L

Introduction to various genres of Egyptian texts, with a focus on those writings that provide information about aspects of funerary/religious beliefs and ritual, of history, politics and institutions, and of the Egyptian quest for knowledge of the world, as evinced in astronomical, medical, and mathematical sources. Literary texts will be treated in so far as they relate to the listed topics. No knowledge of the ancient Egyptian language(s) is required; all texts to be read in translation. Prior attendance in an introductory history and culture course such as NMCIOIY may be helpful, but is not required.

## NMC254HI Modern Hebrew Literature in 26L Translation

This course will survey Hebrew literature, primarily of the $19^{\text {th }}$ and $20^{\text {th }}$ centuries. After a brief overview of ancient and medieval Hebrew literature, the course will concentrate on the classics of the modern Hebrew revival, studying selected works by Bialik, Tchernikhovsky, Agnon, and Brenner. Students will also be introduced to contemporary Hebrew writers and poets such as Aharon Appelfeld, Yehuda Amichai, Amos Oz, and A.B. Yehoshua. All works will be studied in translation.

## NMC255HI Arabic Literature in Translation 26L

 Representative Arabic poems of the pre-Islamic period, followed by certain aspects of the Qur'an. Development of lyric poetry in the Islamic period and of prose, with emphasis on narrative prose. (Offered in alternate years)
## NMC256YI Literature and Culture of 52L

 Modern IsraelIntroduces students to the culture of modern Israel through Israeli literature produced from 1948-present. Focus will be primarily on selected short fiction, poems, plays, songs and films. Some themes explored are: tradition and modernity; traumas of war; the call of history; religion and secularism; and challenges of independence. In English translation. (Offered in alternate years)
NMC257HI Introduction to the Literature 26L of the Jewish Sages
(formerly NMC257YI)
A gateway course designed to introduce students to the variety of literary works produced by the Jewish sages who became known as the rabbis. These works are the classical texts of Judaism which, after the Bible, created normative Judaism. Sample reading in translation will acquaint students with these works. (Offered in alternate years)
Exclusion: NMC257YI
NMC258HI Tales from the Masnavi of Rumi 26L (formerly NMC258YI)
Introduces students to the greatest mystical poet of the PersoIslamic tradition, Maulana Jalal al-Din Rumi (d. I273). Topics include divine love and mystical union, imagination, and esoteric interpretation of the Qur'an. Also introduces the main ideas of Sufism and the figurative language of Persian mystical poetry. In English translation. (Offered in alternate years) Exclusion: NMC258YI
NMC259HI Armenian Literature in Translation 26L
This course offers selected texts written between the 5th and the 19th centuries CE, including pre-Christian epic stories, the Armenian version of the Bible, hagiography, chronicles, translations from Syriac and Greek; poetry and secular literature of the early modern period. All works studied are in English translation.

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## NMC350HI Syriac Literature in Translation 26L

Selected texts from Syriac literature written between the 3rd and 13th centuries C.E., including versions of the Bible and prominent authors of biblical commentaries, hymns, acts of martyrs, liturgical texts, historiography, grammatical and lexicographical works, as well as translations from Greek. (Offered in alternate years)
Recommended preparation: NMCIOIYI

## NMC352HI Faith and Doubt in Modern 26L Hebrew Poetry

An exploration of the relationship of modern Heberw poetry to the Jewish religious tradition. The focus of the course will be to discern whether modern Hebrew poetry constitutes a rebellion against that tradition, or whether it is a source of continuity and revitalization. (Offered in alternate years)

## Archaeology Courses

NMC260YI The Archaeology of the
A general introduction to the archaeology of the ancient Near East including prehistory, Syria-Palestine, and the high civilizations of Mesopotamia and Egypt. Organized chronologically to trace the historical development of agriculture, urbanism, and complex state-ordered societies in the region.
NMC26I YO Field Archaeology
TBA
(formerly NMC26IHI)
Participation for 4-7 weeks during the summer in an approved archaeological excavation in the eastern Mediterranean/Middle East. This experience is then critiqued in a previously assigned essay researched and written under guidance upon return. Departmental permission is required in December-February prior to the fieldwork.
Exclusion: NMC26IHI

## NMC360HI Archaeology of the Biblical 26L World I:The Bronze Age <br> (formerly NMC36IYI)

The archaeology of Syria-Palestine from prehistoric times until the end of the Late Bronze Age (ca. I 200 BCE), with a special emphasis on the development of complex society, and inter-relations with the neighboring regions of Egypt and SyroMesopotamia. Attention will also be given to the history of archaeological research in the region, current field techniques and methods of archaeological analysis, and the relationship between archaeological evidence and contemporary written records, including the Hebrew Bible. (Offered in alternate years) Prerequisite: NMC260YI
Exclusion: NMC36IYI

## NMC36IHI The Archaeology of the Biblical World II:The Iron Age (formerly NMC36IYI)

The archaeology of Syria-Palestine from the collapse of the Late Bronze Age until the Persian Period, with a special emphasis on the emergence of Israel and the small territorial nation-states of the eastern Mediterranean seaboard. Particular attention will be given to the relationship between the archaeological evidence and contemporary written records, including the Hebrew Bible. (Offered in alternate years)
Prerequisite: NMC260YI
Exclusion: NMC36IYI

NMC362YI | The Art and Archaeology of |
| :--- |
| Ancient Egypt |

Architecture, formal arts, and decorative arts to the end of the
Pharaonic period. Cultural evolution rather than art history.
(Offered in alternate years)
Prerequisite: NMC260YI

NMC363HI | The Archaeology of |
| :--- |
| Historical Mesopotamia I |
| 3000-1600 BCE |
| (Formerly NMC363YI) |

The archaeology, art and architecture of Iraq, North Syria and western Iran from ca. 3000-1600 BCE. The civilizations of Sumer, Akkad, Babylonia and Assyria, as well as their relationship to those of the surrounding areas. (Offered in alternate years) Exclusion: NMC363YI
Prerequisite: NMC260YI
NMC364HI

> The Archaeology of Historical Mesopotamia II I600-330 BCE (Formerly NMC363YI)

The archaeology, art and architecture of Iraq, North Syria and western Iran from ca. 1600 B.C.E. to the Persian period. The civilizations of Sumer, Akkad, Babylonia and Assyria, as well as their relationship to those of the surrounding areas. (Offered in alternate years)
Exclusion: NMC363YI
Prerequisite: NMC260YI
NMC366YI The Islamic City 52L
Architectural studies, historical sources and archaeological research are used to examine the physical and social morphology of the pre-industrial Islamic city from Central Asia to North Africa and Spain, from the 7th to the 17th centuries.

## NMC369YI Archaeological Materials and

 IndustriesMaterials and technology help define the cultures and civilizations that use them, especially for archaeologists. Focusing on the Near and Middle East, this course is aimed at promoting understanding of the nature of materials used by the peoples of the region from the earliest prehistory until recent times. This course has a hands-on emphasis. (Offered in alternate years) Recommended preparation: NMC260YI
Exclusion: NMC369HI
NMC394HI Later Islamic Art \& Architecture 39L A continuation of NMC393HI, covering Islamic art and material culture in the years from the 13th century CE to the modern period. Workshop sessions with the Royal Ontario Museum collection.
Prerequisite: One course in either an Islamic field or Fine Art History.
Recommended Preparation: NMC393HI
NMC46 IYI Problems in the Archaeology of 525 the Ancient Near East
Prerequisite: I. 5 courses from NMC $36 \mathrm{IYI} / 362 \mathrm{YI} / 363 \mathrm{HI} / 364 \mathrm{H} /$ $363 \mathrm{Y} / 465 \mathrm{HI} / 466 \mathrm{HI}$; two courses from NMC $370 \mathrm{YI} / 37 \mathrm{IYI} /$ $372 \mathrm{YI} / 343 \mathrm{H} / 344 \mathrm{H} / 346 \mathrm{H} / 347 \mathrm{H}$
NMC462YI $\begin{aligned} & \text { Polarized-light Microscopy in 13L, 39P } \\ & \begin{array}{l}\text { Archaeology } \\ \text { (formerly NMC462HI) }\end{array}\end{aligned}$
The use of polarized-light microscopy in the examination of ceramics, stone, other materials, and microstratigraphy. Lectures in elementary optical mineralogy and case-studies are followed
by lab sessions in which typical thin-sections of pottery, rocks, soils and other materials are studied. (Offered in alternate years)
Exclusion: NMC462HI
Prerequisite: NMC369HI/NMC369YI

## NMC464HI Mediaeval Middle Eastern I3L, 26P Ceramics

An intense view of the basic corpus of pottery from the Middle East, ca. 700-I 800 C.E. The identification of technology, form, and style of the main ceramic groups, enabling identification, dating and attribution of original provenance. (Offered in alternate years)
Prerequisite: NMC260YI

## NMC465HI Ceramic Analysis (formerly NMC364HI)

A survey of methods of classification and analysis (form, fabric and style) involved in the study of archaeological ceramics, and the use of ceramics to infer patterns of production, distribution, and social organization; linking research questions with appropriate analytical techniques.
Exclusion: NMC364HI
Prerequisite: ARH3I2YI/NMC36IYI/369HI/369YI

## NMC466HI Near Eastern Ceramics <br> (formerly NMC367HI)

An introduction to the basic corpus of Near Eastern ceramics, from the invention of pottery production in the Neolithic until the Persian period, utilizing existing collections at the University and in the Royal Ontario Museum.
Prerequisite: NMC260YI, 465HI

## NMC467HI Archaeology and Material Culture of Ancient Egypt I: Predynastic Period to Middle Kingdom

The archaeology and material culture of ancient Egypt, with emphasis on the theoretical and methodological issues inherent in interpreting the archaeological record. Students will also work directly with artifactual material from the Egyptian collection of the ROM.
Prerequisite: NMC37IYI/NMC343H and NMC344H

## NMC468HI Archaeology and Material Culture of Ancient Egypt II: Second Intermediate Period to Greco-Roman Period

The archaeology and material culture of ancient Egypt, with emphasis on the theoretical and methodological issues inherent in interpreting the archaeological record. Students will also work directly with artifactual material from the Egyptian collection of the ROM.
Prerequisite: NMC37IYI/NMC343H and NMC344H

## NMC 469YI Contextualizing Medieval Middle Eastern and Islamic Pottery

This course will use ceramics as the central core to study the material culture of the medieval Middle East and the central Islamic lands. As such they will be the running narrative, to which other materials will be referred, or in turn used to refer to other materials. The same motifs found on ceramics may be found in the contemporary buildings, textiles or woodwork; the same forms are found in metalwork and glass; illustrations on ceramics will survive better than contemporary manuscript paintings, and there are more illustrations of, for instance, medieval swords to be found on pottery than there are actual swords. The course will rely heavily on the collections of
the ROM, and provide a thorough grounding on the technical production and typological variability of the various types of materials attested within their archaeological and cultural context.
Prerequisite: NMC260YI, one other 300+ level course in archaeological materials

## History Courses

## NMC250HI Dead Sea Scrolls <br> (formerly NMC329HI)

An examination of the political context in which these scrolls were produced and preserved.; different theories of who produced these texts, e.g., Sadduccees, Zadokite Priests or Essenes; the way the scrolls use earlier biblical traditions. No Hebrew/Aramaic required; students with background in these languages will have opportunities to use them.
Exclusion: NMC329HI, 33IH, last offered in 2001-02 in Hebrew language
NMC270HI History of Syriac Christianity 26L
The birth of Christianity in Syria and Mesopotamia and the rise of the Monophysite and Nestorian Churches; their life under the Byzantines, Sassanians, Arabs, Mongols and Ottomans. The role of Syrian Christians in diplomacy, science, missions, and relations with other churches. (Offered in alternate years) Recommended preparation: NMCIOIYI
NMC27IHI Arabia Before Islam 26L
Surveying conditions present in the region dominated by the Byzantine and Sasanian empires prior to the rise of Islam (6th7th C.E.) in order to better understand the environment in which Islam was born, and the features which allowed for the birth of a new religion and a new civilization.
NMC272H Byzantines to Seljuks 26L
Rather than being a survey of political history of the Byzantine Empire this course covers selected topics relating to institutions, society, economy, and culture of the era.

## NMC273YI Islamic History to the Fall 52L of Baghdad (1258)

Features of the pre-Islamic Middle East inherited by Islamic civilization, birth of Islam, life and times of Muhammad, formation of Islamic empire and civilization, political disintegration of the caliphate, emergence of autonomous dynasties, the fall of Baghdad to Mongols in 1258 and the rise of the Mamluks.
$\begin{array}{ll}\text { NMC274HI } & \begin{array}{l}\text { The Steppe Frontier in } \\ \text { Islamic History }\end{array} \\ & \text { (for }\end{array}$
Eurasian steppe nomads as slave-soldiers, conquerors, worldempire builders throughout pre-modern Islamic Middle East and Central Asia. Topics include pastoral nomadism, steppe politics and warfare, conversion, jihad. Provides basis for understanding past and present issues of lands, such as Iran, Afghanistan, India, Syria, Egypt and Turkey, where Turks and Mongols played decisive historical roles. (Offered in alternate years) Exclusion: NMC274YI
NMC275HI Muslims \& Jews:The Medieval 26L Encounter
An introduction to the encounter between Jews and Muslims in medieval times, when a majority of Jewish people subsisted under Muslim rule. An overview of religious/political/intellectual

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settings of the Judeo-Muslim experience is followed by exploring cultural cross-pollination, the Jews' legal status under Islam, and interfaith politics. Source materials in translation.
Exclusion: NMC275YI

## NMC276YI Social Movements and Civil 52L Society in the Middle East

This course examines the transformation of Middle Eastern societies form the perspective of non-state actors, especially the social and political movements of peasants, women, labour students, and other social groups.

## NMC278HI Introduction to the Modern <br> Middle East <br> (formerly NMC 278YI)

Historical survey of the principal countries of the Middle East in the 19th and 20th centuries. Themes include the interplay of imperial and local interests, the emergence of national movements, and the formation of modern states. Exclusion: NMC278YI

NMC279HI History of Armenian Christianity 26L
A survey covering early Christianity in Greater Armenia - the role of Gregory the Illuminator; Christological controversies of the 5th century and Armenian Christianity; early Christian art and architecture; the life of the Armenians under the Sassanians and the Byzantines; and subsequently under the Abbasids, Saljuks, Mongols, Safavids and Ottomans.

## NMC324HI Greek Speaking Judaism of the Second Temple Period

A study of the Jewish community that produced the Greek Bible (Septuagint). Philosophical texts (Philo of Alexandria), historical narratives (Pseudo-Aristeas, Josephus), liturgical (Synagogue Prayers) and interpretive texts (Testaments of the Twelve Patriarchs, Joseph and Asenath). No Greek/Hebrew required; students with background in these languages will have opportunities to use them.

## NMC343HI History of Ancient Egypt I: 26L Predynastic Period to Middle Kingdom (formerly NMC37 IYI)

The political and cultural history of Egypt from the later predynastic period through the Middle Kingdom; the use of both archaeological and literary evidence.
Exclusion: NMCIOIYI may not be taken in the same year, NMC37IYI
Recommended preparation: NMCIOIYI

## NMC344HI History of Ancient Egypt II:

## Second Intermediate Period to

Greco-Roman Period
(formerly NMC37IYI)
The political and cultural history of Egypt from the Second Intermediate Period through the Middle Greco-Roman Period; the use of both archaeological and literary evidence.
Exclusion: NMCIOIYI may not be taken in the same year, NMC37IYI
Recommended preparation: NMCIOIYI

## NMC346HI Ancient Mesopotamia I: Sumerians and Akkadians (formerly (NMC372YI)

The political and cultural history of the peoples of ancient South-Western Asia from 3000BCE to the destruction of Babylon by the Hittites ca. 1600 BCE. (Offered in alternate years)

Exclusion: NMCIOIYI may not be taken in the same year, NMC372Y
Recommended preparation: NMCIOIYI

NMC347HI | Ancient Mesopotamia II: |
| :--- |
| Assyrians and Babylonians |
| (formerly (NMC372YI) |

The political and cultural history of the peoples of ancient
South-Western Asia from ca. I 600 BCE to the conquest
of Babylon by Alexander the Great in 33 I BCE (Offered in
alternate years)
Exclusion: NMCIOIYI may not be taken in the same year,
NMC372Y
Recommended preparation: NMCIOIYI

The political and cultural history of the peoples of ancient South-Western Asia from ca. 1600 BCE to the conquest of Babylon by Alexander the Great in 33I BCE (Offered in alternate years)

NMC372Y
Recommended preparation: NMCIOIYI

| NMC348YI | History of Iran from the Sasanians 52L <br> to the Safavids |
| :--- | :--- |
| (formerly NMC375YI, 348HI, 349HI) |  |

The political history and cultural legacy of the Sasanian empire before the Arab conquests of Iran in the 7th-8th centuries, with a focus on the transmission of Persian concepts of kingship, administration, and social organization into Islamic civilization. The rise of native Iranian dynasties in the eastern Islamic world and the creation of the Perso-Islamic cultural synthesis under the Samanids in the 10th century. The history of greater Iran (including Central Asia and Afghanistan) under the rule of Turkic and Turko-Mongolian dynasties, such as the Ghaznavids, Seljuqs, llkhanids, and Timurids, with special attention to the interaction between nomadic and sedentary cultures. The emergence of the Safavid state in the 16th century, a watershed in the political and religious history of Iran, to the early modern period in the 18th century.
Recommended Preparation: NMC273YI/274HI/274YI
Exclusion: NMC375YI/348HI/349HI

## NMC355HI The Ottoman Empire in the 26L

 Age of Reform, 1808-1918The last phase of the Ottoman empire has long been viewed by Orientalists and Middle East nationalists as a period of inevitable decline. More recently, cultural historians of the Middle East have framed the long 19th. century as a period of grand reforms - or Tanzimat. This course seeks to critically examine the notions of 'reform of the state' and 'reform of the individual' between Sultan Mahmud II's accession and the defeat of the Ottoman empire in World War I. Focusing largely on Istanbul and the Ottoman capital's political relations with the Arab provinces, we will relate economic, social and intellectual transformations to state laws and policies, Mediterranean capitalism and the rise of sectarianism and nationalism in the Middle East.
Recommended preparation: NMC276YI/278HI/278YI/353HI/
$377 \mathrm{HI} / 377 \mathrm{YI} / 378 \mathrm{HI} / 378 \mathrm{HI}$
NMC357HI Communications Media of the 26L

> Middle East (formerly NMC357YI)

The Middle East and Far East are the birthplace of the world's most important communication revolutions, writing and its mechanization, i.e., printing. However, the modern mass media including journalism, film, radio, and television as well as communication technologies such as telegraphy, telephony, photography, sound recording, photocopying, computers, satellites, facsimile and Internet originated in the West. These media are important actors in the social, cultural, and political life of the Middle East, and its diasporas in the West. This course deals with, among other topics, media, state and empire formation; the social and historical contexts of the rise of
modern mass media; the formation of reading, listening and viewing publics; civil society, public spheres and democratisation; media and social movements; media, language and nation; satellite broadcasting;"high" and "popular" cultures; radio wars; the Internet; communication rights. Evaluation will be based on participation, weekly writing assignments, one major research paper or a final exam.
Exclusion: NMC357Y
Prerequisite: NMC 278H/278Y or permission of the instructor.

## NMC 358HI Mass Media, the Middle East, and 26L the West <br> (formerly NMC357YI)

Mass media and popular culture play a prominent role in the ways in which Western societies understand the Middle East. This course examines a variety of academic approaches to the study of the world's changing media environments in the context of relations between the West and the Middle East.
Exclusion: NMC357YI or permission of the instructor
Prerequisite: NMC $278 \mathrm{HI} / 278 \mathrm{Y}$ I

## NMC359HI Iranian Constitutional Revolution <br> 26L (formerlyNMC359YI)

Explores competing narratives of the Constitutional Revolution (1906-1911), particularly the transformation of public and private spheres and their corresponding modes of collective and personal self-presentation. Students explore revolutionary legacies, and the ways in which competing political, religious and ideological forces have attempted to shape the Revolution's memory. (Offered in alternate years
Exclusion: NMC373HI may not be taken in the same year; NMC359YI
Recommended preparation: NMC278HI/278YI
NMC370YI Ancient Israel 52L
The political and cultural history of ancient Israel from the origin of the Hebrews to the exile and restoration in the Persian period. (Offered in alternate years)
Exclusion: NMCIOIYI may not be taken in the same year Recommended preparation: NMCIOIYI

## NMC373HI Turkey and Iran in the 20th Century (formerly NMC373YI)

A survey of the social, cultural, and political transformations of Turkey and Iran in the context of Eurasian and international relations. (Offered in alternate years)
Recommended preparation: NMC278HI/278Y।
Exclusion: NMC 359 HI may not be taken in the same year, NMC373YI

## NMC374HI History of Islamic Egypt 26L (formerly NMC374YI)

A survey of the history of Egypt under Islamic rule from the Arab to the Ottoman conquest (I5I7 C.E.), including the Fatimid, Ayyubid and Mamluk dynasties. Issues treated thematically include conversion and inter-communal relations, relations with Syria, militarization of the political structure, including the military slave (mamluk) institution, religious currents, the impact of the Crusades and Mongol invasions, commercial and diplomatic relations, the emergence of Cairo as the centre of the later mediaeval western Islamic world. (Offered in alternate years)
Recommended preparation: NMC273YI
Exclusion: NMC374Y I

NMC376HI History of Islamic Spain and North Africa (640-1492)<br>Muslim conquest of North Africa and Spain, history of Spain under Muslim rule to 1492 . Attention given to institutional and cultural development, Islamic Spain's relations with the Islamic east and neighbours in Europe. (Offered in alternate years) Recommended preparation: NMC273YI

## NMC377YI The Ottoman Empire to 1800 26L (formerly NMC377HI, 353HI)

History of the emergence of the Ottoman state and its evolution from a border principality in Asia Minor into an empire. Ottoman expansion into Europe, Asia and Africa. The empire at its height under Süleyman the Lawgiver. The development of important administrative and military institutions. First military and diplomatic setbacks.
Recommended preparation: NMC272H/273Y
Exclusion: NMC353HI/377HI

## NMC378HI Themes In Modern Arab History 26L (formerly NMC378YI)

A thematic treatment of the Arab lands of the Middle East and North Africa from 1700 onward, focusing on the Ottoman and colonial periods.
Recommended preparation: NMC278HI/278YI
Exclusion: NMC378YI

## NMC47IHI Topics in Early \& Medieval Islamic History

A seminar organized around readings on a topic selected by the instructor. Possible topics might include authority and power in medieval Islamic society in the Middle East, slavery, women, taxation, landholding, iqta' and payment of the military, waqf, etc. (Offered in alternate years)
Prerequisite: Permission of the instructor
NMC472HI Theory \& Method in
Middle East Studies
135

Examines current theoretical and methodological trends in the study of the Near/Middle East. A seminar course, it consists of presentations, discussions, lectures, guest speakers, and documentaries. No previous knowledge of methodology required. Special attention will be paid to the politics, culture, political economy, gender, and ethics of various research practices.
Prerequisite: Permission of the instructor

| NMC473HI | Intellectuals of the Modern <br> Arab World <br> (formerly NMC385Y I/NMC355HI) | I3S |
| :--- | :--- | :--- |

The course is designed to re-examine the role of intellectuals in the Arab world and political events that shaped their thinking. It introduces the life and thought of some leading thinkers of the Arab world and relates their thought to the lived experience of political, social, economic and cultural change in the Middle East. (Offered in alternate years)
Recommended preparation: NMC276YI/278HI/278YI/353HI/ $377 \mathrm{HI} / 377 \mathrm{YI} / 378 \mathrm{HI} / 378 \mathrm{YI}$
Exclusion: NMC385YI/NMC355HI from 2005-06
NMC474HI Contemporary Iraq I3S
Although Iraq is the site of the earliest major revolutions in history (communication, agrarian and urban revolutions), this course is a survey of more recent history, i.e., the creation of the Iraqi state under British rule, its role in post-WWI colonial projects, the Cold War, and regional and international conflicts. Focus will be on the emergence of Iraqi nationalism, Kurdish nationalism, political Islam, social movements, as well as the IraqIran war of 1980-88, the U.S. wars of 199I and 2003, and the

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outcomes of these wars. Evaluation will be based on participation, weekly writing assignments, and one major research paper.
Prerequisites: NMC278H/278Y or NMC276 or permission of the instructor.

## NMC475HI Orientalism \& Occidentalism I3S

This course probes the contemporaneous formation of modern Oriental Studies in Europe and the emergence of discourses on Europe (Ifranj/Farang) in the Middle East from the eighteenth century to the present. Special emphasis will be devoted to encounters between scholars in Western Europe, Iran, India, and the Ottoman Empire. This seminar-style course explains that Orientals gazed and returned the gaze, and in the process of "cultural looking," they, like their Occidental counterparts, exoticized and eroticized the Farangi-Other. In the interplay of looks between Orientals and Occidentals, there was no steady position of spectatorship, no objective observer, and no "aperspectival" position.
Prerequisites: NMC278H/278Y or NMC276 or permission of the instructor.

## NMC476HI Violence and Civil Society in the Middle East (formerly NMC477YI)

While the ideas and practices of civil society in the Middle East date back to the late nineteenth century, the region has emerged as an enduring war zone of the world. This course examines the dynamics of conflict and coexistence in the heterogenous societies of the region. Focus will be on Middle Eastern politics and practice of civil society, the nation-state system, and modernist forms of state and non-state violence such as massacre, genocide, crimes against humanity, ethnocide, ethnic cleansing, linguicide, racism, ethnocentrism, and xenophobia. Evaluation will be based on participation, weekly writing assignments, and one major research paper.
Exclusion: NMC477Y।
Prerequisite: NMC278H/278Y or permission of the instructor.
NMC477HI Nationalist Movements in the I3S Middle East
(formerly NMC477YI)
Although the Middle East is often viewed, in the West, as an ethnically and religiously homogeneous region (Arab, Islamic), it is one of the world's diverse regions in language, culture, ethnicity, nationality, and religion. Nationalist movements, which emerged in the late nineteenth century, re-shaped the political, economic, linguistic and cultural make-up of the region. The course will focus on four state-nationalisms (Arab, Jewish, Persian, Turkish) and one non-state nationalism (Kurdish). Students are encouraged, in this seminar course, to study other nationalist movements. While course content is diverse, the approach to nationalism will be informed by the growing body of critical theories. Evaluation will be based on participation, weekly writing assignments, and one major research paper.
Exclusion: NMC477Y
Prerequisite: NMC278H/278Y or permission of the instructor.

## NMC 478HI Readings in the Modern History of Arab Societies

A seminar built around thematic readings of social and economic history of the modern Arab world. Offered every other year. Prerequisite: NMC $378 \mathrm{HI} / 378 \mathrm{Y}$ I

| NMC479HI | Histories of Nationalism in the <br> Arab World <br> (formerly NMC479YI) |
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(formerly NMC479YI)
A seminar organized around readings in selected topics. The topics are related to the instructor's research interests. (Offered in alternate years)
Prerequisite: NMC378HI/NMC378YI or permission of instructor Exclusion: NMC479YI

## Religion and Philosophy Courses

NMCl 85 HI Introduction to the Religion of Islam (formerly NMCI85YI)

26L
(forme
The place of Islam in world history, its central beliefs and practices. The Islamic contribution to world civilization; the pluralistic community, learning and the arts. Islam and modernity.
Exclusion: RLG204YI, NMCI85YI

## NMC28IHI Prophets:Ancient Jewish Prophecy 26L <br> and Inspired Exegesis <br> (formerly NMC252HI)

Practices and concepts of prophecy in the Hebrew Bible and Second Temple traditions such as Dead Sea Scrolls, Hellenistic Jewish writings, and early Christian writings. How did prophets, priests and scribes claim divine inspiration? How did they connect revelation and heavenly journey to textual authority and the production of Scripture?
Exclusion: NMC252HI
NMC284HI Judaism and Feminism 26S
Explores the interaction between Jewish religious and secular movements and feminism. Investigates Jewish law (halakha) and the Jewish legal (halakhic) process in terms of feminist critique. Marriage, divorce, Torah study, bat mitzvah, other ceremonies, female rabbinic ordination and women's prayer groups are some of the topics considered. (Offered in alternate years)

## NMC285HI The Qur'an: Spirit and Form <br> 26L (formerly NMC285YI)

Concern is mainly with the sacred character of the Qur'an (koran), its preeminence in Islam. Topics include: the idea of the sacred book, the Qur'an and the Bible, the influence of the Qur'an on Islamic spirituality, literature, theology, law, philosophy, and the various apporaches taken in interpreting the Qur'an. Knowledge of Arabic is not required. (Offered in alternate years)
Recommended preparation: NMCI85HI/I85YI/RLG204YI Exclusion: NMC285YI/RLG35IHI

## NMC286HI The Qur'an: Reading and Transformation

This course is a continuation of NMC285HIF. Students will be required to engage directly with the text in English or French translation, to discuss and write on major and minor quranic topics and themes and to study the works of other astute readers of the text. Arabic is not required or expected. Recommended preparation: NMC285HI
Exclusion: NMC285YI/RLG35IHI

NMC 287HI Mystical Dimensions of Islam and Judaism
The phenomenon of mysticism and the forms it took in the religions of Judaism and Islam. A survey of the main trends in each mystical tradition, with a focus on Sufism (Islamic mysticism) and Kabbalah (Jewish mysticism), both of which flourished during the mediaeval period. Parallel developments will be identified and possible mutual influences suggested. Readings in English translation include Attar's Conference of the Birds, Ruzbihan Baqli's Unveiling of Secrets, the Book Bahir, and the Zohar.
Exclusion: HUMI99HI/YIY LO302 (2003-2006)
NMC380YI Religion and Myth in the Ancient
52L Near East
(formerly NMC380HI)
Religious belief and practice in Mesopotamia and Syria (Ugarit).
(Offered in alternate years)
Exclusion: NMC380HI
Recommended preparation: NMCIOIYI

## NMC38IHI Modern Islamic Thought

(formerly NMC38IYI)
26L

A survey of major intellectual trends in the Islamic religious tradition, particularly those identified with Middle Eastern Muslim thinkers, from the eighteenth century until the present.
Prerequisite: NMCI85HI/20IYI or RLG204YI
Exclusion: NMC38IYI

## NMC382YI Ancient Egyptian Religion <br> 52L

 (formerly NMC382HI and 383HI)Religious belief and practice in ancient Egypt. The course will focus on gods and mythology, which will be studied through primary sources in translation. (Offered in alternate years)
Recommended preparation: NMCIOIYI
Exclusion: NMC382HI/NMC383HI

## NMC384HI Life Cycle and Personal Status in Judaism

Jewish attitudes to various personal status issues, such as the foetus, the minor, the pubescent child, and the mentally and physically challenged adult from biblical and rabbinic sources to modern Jewish positions. (Offered in alternate years)

## NMC387HI Islamic Mystical Tradition 26L

Mysticism and spirituality in Islam: the Qur'an; doctrine; prayer; Sufism; Irfan (Shi'i mysticism). Themes include love, knowledge, authority, being, interpretation.
Prerequisite: NMCI85HI/I85Y/RLG204Y

## NMC388HI Shi'i Islam I (formerly NMC386HI)

Subjects covered include: the rise and development of the Shi'i version of Islamic "orthodoxy" from the mid-7th to the mid-13th centuries CE. Distinctive Shi'i interpretations of the Qur'an will be examined.
Prerequisite: NMCI85HI/I85YI/RLG204YI
Exclusion: NMC386HI

## NMC389HI Shi'i Islam II (formerly NMC386HI)

This course continues the study of Shi'ism from 1258 to the present day and will include the history and teachings of the various members of the Shi'i family of Islamic religion.
Prerequisite: NMCI85H/I85Y/RLG204Y
Exclusion: NMC386HI

26L NMC48IHI Muslim Gnostics and Mystics 26L
This course will present for study a different prominent figure each year: Hallaj, Ghazali, Suhrawardi, Ibn Arabi, Rumi, Mulla Sadra, and so on. Attention will be given to their respective social and historical milieux, their modes of expression and experience, an the nature of their literary productions.
There is no prerequisite, but students must be advanced undergraduates in the Humanities.
Recommended preparation: NMC285HI/286HI/RLG35IHI
NMC484HI Gender-related Topics in
26L Law and Religion (formerly NMC484YI)
Abortion, rape, family violence and similar topics from the perspective of historical and legal development, scientific theory, socio-ethical attitudes and anthropological comparison in the Bible and other ancient Near Eastern sources, through Jewish legal texts to modern responses. (Offered in alternate years)
Prerequisite: Permission of instructor
Exclusion: NMC484YI

## Art and Material Culture Courses

## NMC392HI The Taj Mahal and Its Origins 26L

Monumental architecture, whether for secular or religious purposes, played a special role in Muslim societies, particularly in major centres such as Isfahan, Samarkand and Delhi. Beginning with the Taj Mahal (1632) the best-known elements of Islamic architecture the double dome, the pointed arch, glazed tiles are traced retroactively in Iran, Central Asia, and India, and their social context is studied. (Offered every three years)
Prerequisite: NMC39IHI, 394HI or 2 courses in FAH
NMC393HI Early Islamic Art \& Architectures 26L
A survey of the arts of the Islamic world from the 7th century to the Mongol conquest in the mid-l3th century.
Prerequisite: One full course in Near Eastern/Islamic art \& material culture
NMC394HI Later Islamic Art \& Architecture 26L
A continuation of NMC 393 HI , covering Islamic art and material culture in the years from the I3th century CE to the modern period. Workshop sessions with the Royal Ontario Museum collection.
Prerequisite: One course in either an Islamic field or Fine Art History.
Recommended Preparation: NMC393HI
NMC396YI From Alexander to Muhammad 52L
An overview of late antique Greek, Arab and Persian material culture, as seen through the archaeological record of Syria, Iraq, and Iran.

## Research Courses

NMC299YI Research Opportunity Program
Credit course for supervised participation in faculty research project. See page 47 for details.

## NMC398H0/ Independent Experiential Study Project 399YO <br> An instructor-supervised group project in an off-campus setting. See page 47 for details.

## NMC495YI Independent Studies

Prerequisite: Permission of Department

# Near and Middle Eastern Civilizations 

NMC496HI Independent Studies
Prerequisite: Permission of Department
NMC497HI Independent Studies
Prerequisite: Permission of Department

## NMC499YI Directed Reading

A course of study tailored to the individual needs or interests
of advanced undergraduate students. A selection of readings chosen by the student, under the supervision of a faculty member on which the student may be examined serves as background
preparation for the writing of a research paper.
Prerequisite: Permission of Department

## Faculty

## Associate Professors

D.L. Eyoh, MA, Ph D (African Studies)

## Senior Lecturers

A. Itwaru, Ph D (Caribbean Studies)
J. Larkin, BA, M Ed, Ph D (Women's Studies/Equity Studies) R.G.Wilson, Ph D (Human Biology)

## Lecturers

D. Knott, MA, MTS (Paradigms and Archetypes/Writing Centre)
R. Michalko, Ph D (Equity Studies)

New College courses have in common a commitment to be explorative and inventive and to widen students' experience by critically examining relationships among academic disciplines. These courses take their place within such well-defined programs as Women's Studies, Human Biology, Equity Studies, Paradigms and Archetypes, African Studies, and Caribbean Studies. These programs are open to all students in the University.

Integration of student experience is a major concern in a college with students from all faculties in the University. The Independent Studies courses provide an opportunity for students to design their own programs and to test their analytic, synthetic, and creative skills by writing a thesis.

## The African Studies Program

(Specialist, Major, Minor) offers opportunities to study Africa through a selection of courses devoted to African history, society and culture. The core courses are drawn from anthropology, history, literature and political science.

The Buddhism, Psychology and Mental Health Program (Minor) allows students to choose from a wide range of courses on mind, consciousness, cognitive science, psychology of religion, health psychology, and sociological analyses of physical and mental health to acquire an understanding of the contributions of Buddhism to the modern understanding of consciousness, mental health and illness, and determinants of physical health.

## The Caribbean Studies Program

(Specialist, Major, Minor) consists of courses in Caribbean history, literature and thought that deal with issues including gender, religion, politics, culture, ethnicity, race, development, language, colonialism and regional common markets.

## The Equity Studies Program

(Major) is an interdisciplinary program that examines various models - historically and culturally specific - for conceptualizing social inequities and for bringing about equity. It draws together discourses on equity from the humanities, social sciences and sciences.

## The Human Biology Programs*

offer a broad education in life sciences with courses offered by departments in both the Faculties of Arts and Science, and Medicine.
*Specialist: (I) Genes, Genetics and Biotechnology; (2) Global Health; (3) Health and Disease; (4) Human Behavioural Biology.

Major: Human Biology (See Life Sciences section of the Calendar.)

## The Paradigms and Archetypes Program

(Minor) provides opportunities for undergraduates in disciplinebased programs to access, through a comparative analysis of primary sources, the structure and dynamics of "paradigms": archetypal narratives, assumptions, myths, fantasies, analytical protocols and methodologies which govern the conduct of disciplines in every field and all cultures.

## The South Asian Studies Program

(Specialist, Major, Minor) provides the opportunity for students to study traditional and modern South Asia. The history and culture of India, Pakistan, Bangladesh, and Sri Lanka are presented in courses offered by a number of departments.

## The Women and Gender Studies Program

(Specialist, Major, Minor) offers a wide variety of courses in a rapidly developing and intellectually fertile field. Courses cover such issues as the representation and social organization of sexual differences, women and health, gender issues in law, women in world cultures, women and issues of international development and the history of feminism. (See the Women and Gender Studies section of the Calendar.)

## Contact:

Program Secretary's Office:
New College, Room 132 (416-978-5404 or nc.programs@ utoronto.ca)

Registrar's Office:
New College, Room 107 (4I6-978-2460)

## New College Programs

## African Studies (Arts program)

Consult Program Director, Prof. S. Hawkins, New College, 416-978-3366. For general enquiries call 416-978-5404.

Enrolment in the Specialist, Major, and Minor programs in African Studies is open to students who have completed four courses; no minimum GPA required.

## Specialist program:

(I I full courses or their equivalent including at least one 400series course)

## Core course requirements:

NEW I50YI (recommended in first year), NEW 450HI (to be taken in the final year)

## Other requirements:

I. Four full course equivalents from Group A, to be chosen from at least two different departments/programs, one of which must be NEW 450HI
2. Two full course equivalents from Group B
3. Two full course equivalents from Groups $A$ or $B$
4. A combination of two language full course equivalents as outlined in Group C
5. Four full course equivalents of the eleven courses must be $300 / 400$ series (including at least one 400 -series course) of which at least one must be from Group A and another from Group B

## Major program:

(6 full courses or their equivalent)
Core course requirements:
NEW I50YI (recommended in first year), NEW 450HI (to be taken in the final year)

## Other requirements:

I. Three full course equivalents from Group A, one of which must be NEW 450HI
2. Two full course equivalents from Groups B, or NEW 280YI and 380 Y I
3. At least two 300/400-series full course equivalents from Groups A and/or B

## Minor program:

(4 full courses or their equivalent)

## Core requirement:

NEW I50YI (recommended in first year)

## Other requirements:

I. One full course equivalent from Group A
2. One full course equivalent from Group $B$, or another one from Group A
3. One full course equivalent from Group B or NEW 280YI, NEW 28IYI or NEW 380YI
4. At least one full course equivalent must be a $300+$ series course from Groups A and/or B

Group A (Courses that deal exclusively with Africa. These include but are not limited to the following): HIS383HI, $396 \mathrm{YI}, 48 \mathrm{IHI}, 486 \mathrm{HI}$; NEW $250 \mathrm{YI}, 252 \mathrm{HI}, 296 \mathrm{YI}$, $322 \mathrm{YI}, 350 \mathrm{HI}, 352 \mathrm{YI}, 450 \mathrm{HI} ;$ POL30IYI, $488 \mathrm{YI}, 489 \mathrm{HI} ;$ SMC209HI; an independent studies course approved by the Program Committee

Group B (Courses that deal with Africa and/or one or more of its diaspora. These include but are not limited to the following):
ENG270YI; FRE332HI; HIS 294YI, 296YI, 305HI, 360YI, $366 \mathrm{YI}, 370 \mathrm{HI}, 393 \mathrm{HI}, 408 \mathrm{YI}, 446 \mathrm{YI}, 456 \mathrm{YI}, 475 \mathrm{HI}, 476 \mathrm{YI}$, 487HI; INI327YI; NEW223YI, 224YI, 324YI, 325HI, 326YI; POL20IYI, $32 \mathrm{IHI}, 358 \mathrm{HI}, 403 \mathrm{HI}, 479 \mathrm{HI} ; W G S 435 \mathrm{HI}, 440 \mathrm{HI}$

## Group C:

(NEW280YI, 28IYI, 380YI)/(FSL22IYI, 33IYI/34IYI/ 43IYI/ 362YI)/(NML2IOYI, 3IOYI)/(PRTIOOYI/ IIOYI, 220YI); or two courses in a major African language approved by the Program Committee

## Buddhism, Psychology and Mental Health (Arts program)

Consult Program Director, Prof. A. Toneatto, Centre for Addiction and Mental Heath (CAMH), (4I6) 535-850I, ext. 6828. For general enquiries call 416-978-5404 or email nc.programs@utoronto.ca.
Enrolment in the Minor program in Buddhism, Psychology and Mental Health is open to students who have completed four courses; no minimum GPA required.

## Minor Program:

I. NEW 2I4YI (Socially Engaged Buddhism) or RLG 206YI (The Buddhist Religious Tradition)
2. NEW 432YI (The Healing Mind:Theories and Applications of Buddhist Psychology - Formerly NEW402Y)
3. NEW 433HI (Advanced Topics) or PHL 240HI (Persons, Minds and Bodies)
4. I. 5 full course equivalent from : ANT C6H3; EAS369YI, NEW 2I4Y, 303HI (The Hypothesis of the Unconscious), 333 HI (Special Topics), 433 HI ; PHL $240 \mathrm{HI}, \mathrm{B} 8 \mathrm{H} 3, \mathrm{~B} 86 \mathrm{H} 3$; UNI $250 \mathrm{YI}, 302 \mathrm{HI}$; RLG 206YI, 2IIYI, 373HI; SOC $243 \mathrm{HI}, 363 \mathrm{HI}$;

## Caribbean Studies (Arts program)

Consult Program Director, Prof. D. A. Trotz, New College, 416-
978-8286. For general enquiries call 416-978-5404 or email nc.programs@utoronto.ca.

Enrolment in the Specialist, Major and Minor programs in Caribbean Studies is open to students who have completed four courses; no minimum GPA required.

## Specialist Program:

( 10 full courses or their equivalent including at least one at the 400-level)
I. NEW 224YI, NEW 324YI
2. Eight full courses or their equivalent, with at least six from Group A, the remaining two from Group A or Group B.
Major program:
(6 full courses or their equivalent including two at the 300+level)
I. NEW 224YI, 324YI
2. Four full courses or their equivalent from Group $A$ or Group B, including at least one at the $300+$ level

## Minor program:

(4 full courses or their equivalent including one at the 300level)
I. NEW 224YI, 324 Y I
2. Two courses from Group A or Group B

## Group A:

ANT 426 HI ; ENG270YI; HIS I06YI, 294YI, $295 \mathrm{HI}, 333 \mathrm{YI}$, $359 \mathrm{HI}, 370 \mathrm{HI}, 394 \mathrm{HI}, 456 \mathrm{YI}, 494 \mathrm{YI}$; NEW I50YI, 223 YI , $240 \mathrm{YI}, 325 \mathrm{HI}, 326 \mathrm{YI}, 327 \mathrm{YI}, 422 \mathrm{YI}, 423 \mathrm{HI}, 424 \mathrm{YI}, 426 \mathrm{YI} ;$ POL 20IYI, $30 \mathrm{IYI}, 305 \mathrm{YI}, 347 \mathrm{YI}, 357 \mathrm{YI}, 358 \mathrm{YI}, 445 \mathrm{YI}$;WGS $330 \mathrm{HI}, 369 \mathrm{YI}, 425 \mathrm{YI}$

Group B:
GGR $240 \mathrm{YI}, 249 \mathrm{HI}$; HIS $232 \mathrm{YI}, 295 \mathrm{HI}, 390 \mathrm{YI}, 408 \mathrm{YI}, 446 \mathrm{YI}$, 476YI; NEW 296YI, 322YI; POL 4I7YI, 4I8YI, 442HI, 488YI; RLG $204 \mathrm{YI}, 205 \mathrm{YI}$; SOC $330 \mathrm{YI}, 336 \mathrm{HI}$; SPA $380 \mathrm{HI}, 38 \mathrm{IHI}$, 382HI,WGS 435HI

## Equity Studies (Arts program)

Consult Program Co-ordinator, Dr. J. Larkin, 416-978-8282. For general inquiries call 416-978-5404 or email nc.programs@ utoronto.ca.

Enrolment in this program is open to students who have completed four courses; no minimum GPA required.

## Major program:

(7 full courses or their equivalent, including two full courses at the $300+$ level)

NEW 240YI
2. One full course equivalent from the core group below
3. Five full course equivalents from: Groups A, B, C, D, E (including one or more full-course equivalents from at least three of the five groups)

## Core Group

NEW 2I4YI, 24IYI, 34IHI, 342HI, 343HI, 344YI, 349HI, $44 \mathrm{IHI}, 442 \mathrm{HI}, 444 \mathrm{HI}, 449 \mathrm{HI}$

## Group A: Gender

CLA $219 \mathrm{HI}, 220 \mathrm{HI}$; EAS $303 \mathrm{HI}, 452 \mathrm{HI}, 453 \mathrm{HI}$; ENG 233 YI , $307 \mathrm{HI}, 309 \mathrm{HI}, 355 \mathrm{HI}, 383 \mathrm{HI}$; FCS497HI; FRE $304 \mathrm{HI}, 404 \mathrm{HI}$; GER 42 IHI ; GGR 327 HI ; HIS $202 \mathrm{HI}, 245 \mathrm{YI}, 306 \mathrm{HI}, 348 \mathrm{HI}$ $354 \mathrm{YI}, 366 \mathrm{YI} ; 363 \mathrm{HI}, 366 \mathrm{YI}, 395 \mathrm{YI}, 4 \mathrm{I} 8 \mathrm{HI}, 446 \mathrm{YI}, 48 \mathrm{IHI}$, $483 \mathrm{HI} ;$ ITA $455 \mathrm{HI} ;$ JAL $355 \mathrm{HI} ; \mathrm{JHP} 440 \mathrm{YI} ;$ JNV300HI; JPP 343 YI ; NEW 325HI; NMC $284 \mathrm{HI}, 484 \mathrm{HI}$; PHL 267 HI ; POL $35 \mathrm{IYI}, 432 \mathrm{HI}, 450 \mathrm{YI}$; PSY 323 HI ; RLG $236 \mathrm{HI}, 237 \mathrm{HI}, 3 \mathrm{I} 4 \mathrm{HI}$; SLA 248 HI ; SOC $214 \mathrm{YI}, 365 \mathrm{YI}, 366 \mathrm{HI}, 383 \mathrm{HI}$; SPA 382 HI ,VIC $34 \mathrm{IHI}, 343 \mathrm{YI}$;VIS 209HI;WGS I60YI, 26IYI, 262YI, 330 HI , $334 \mathrm{HI}, 335 \mathrm{HI}, 336 \mathrm{HI}, 362 \mathrm{HI}, 363 \mathrm{HI}, 365 \mathrm{HI}, 366 \mathrm{HI}, 367 \mathrm{HI}$, $368 \mathrm{HI}, 369 \mathrm{HI}, 372 \mathrm{HI}, 373 \mathrm{HI}, 374 \mathrm{HI}, 425 \mathrm{YI}, 460 \mathrm{YI}, 465 \mathrm{HI}$, 470YI

## Group B: Race, Creed, Ethnicity

ANT 204YI, $325 \mathrm{YI}, 343 \mathrm{YI}, 344 \mathrm{YI}, 349 \mathrm{HI}, 367 \mathrm{YI}, 426 \mathrm{HI}$, $446 \mathrm{YI}, 448 \mathrm{HI}, 453 \mathrm{HI}$; ENG $268 \mathrm{HI}, 270 \mathrm{YI}, 275 \mathrm{YI}, 277 \mathrm{YI}$, $355 \mathrm{HI}, 368 \mathrm{HI}$; FIN 320 H ; HIS 208YI, 294YI, 295YI, 296 Y $303 \mathrm{YI}, 3 \mathrm{I} 2 \mathrm{HI} ; 338 \mathrm{YI}, 34 \mathrm{YYI}, 355 \mathrm{HI}, 360 \mathrm{YI} 370 \mathrm{HI}, 383 \mathrm{HI}$, $384 \mathrm{HI}, 393 \mathrm{HI}, 394 \mathrm{HI}, 396 \mathrm{YI}, 408 \mathrm{YI}, 429 \mathrm{YI}, 442 \mathrm{YI}, 456 \mathrm{YI}$, $475 \mathrm{HI}, 476 \mathrm{HI}, 494 \mathrm{YI} ;$ INI 327 YI ; ITA $493 \mathrm{HI} ;$ JAP 256 HI ; NEW I50YI, 223YI, 224YI, 296YI 322YI, $324 \mathrm{YI}, 326 \mathrm{YI}, 424 \mathrm{YI}$; NMC $276 \mathrm{YI}, 384 \mathrm{YI}, 477 \mathrm{YI}, 484 \mathrm{HI}$; POL $304 \mathrm{HI}, 32 \mathrm{IHI}, 403 \mathrm{HI}$ 425 YI ; RLG $220 \mathrm{HI}, 236 \mathrm{HI}, 237 \mathrm{HI}, 315 \mathrm{HI}, 344 \mathrm{YI}$; SOC 210 YI , $330 \mathrm{YI}, 336 \mathrm{HI}, 339 \mathrm{HI} ; \mathrm{UNI} 304 \mathrm{HI}, 307 \mathrm{HI}$

## Group C: Sexual Diversities

ENG 273YI, 290YI; POL 3 I 5 HI ; PHL 243 HI ; UNI 255 HI , $256 \mathrm{HI}, 354 \mathrm{HI}, 355 \mathrm{HI}, 365 \mathrm{HI}, 375 \mathrm{HI}, 455 \mathrm{HI}, 475 \mathrm{HI} ; \mathrm{UNI}$ $475 \mathrm{HI} ; W G S 374 \mathrm{HI}$

## Group D: General Equity

ABS 20IYI, 250HI, $300 \mathrm{YI}, 30 \mathrm{IYI}, 302 \mathrm{HI}, 320 \mathrm{YI}, 350 \mathrm{YI}, 35 \mathrm{IYI}$, $352 \mathrm{HI}, 353 \mathrm{HI}, 354 \mathrm{HI}, 402 \mathrm{HI}, 405 \mathrm{YI}$; ANT $329 \mathrm{YI}, 342 \mathrm{HI}$, $348 \mathrm{YI}, 362 \mathrm{HI}, 366 \mathrm{YI}, 425 \mathrm{HI}, 447 \mathrm{HI}, 452 \mathrm{HI}$; DTS 20 IHI , 202 HI ; EAS 462 HI ; ECO $239 \mathrm{YI}, 332 \mathrm{HI}, 339 \mathrm{YI}, 340 \mathrm{HI}, 369 \mathrm{YI}$, $424 \mathrm{HI}, 425 \mathrm{HI}$; ENG 254 YI ; GGR $362 \mathrm{HI}, 363 \mathrm{HI}, 370 \mathrm{HI}$; HIS I06YI, $3 \mathrm{I} 3 \mathrm{HI}, 367 \mathrm{HI} ; 369 \mathrm{YI}, 395 \mathrm{YI}, 459 \mathrm{YI}, 472 \mathrm{HI} ; \mathrm{HPS}$ 324HI; JAG 32 IHI ; JFP 450 HI ; PHL 28IYI, 384HI; POL 342 H , $344 \mathrm{HI}, 405 \mathrm{YI}, 4 \mathrm{I} 2 \mathrm{YI}, 480 \mathrm{HI}$; PRT 35IHI; RLG 20IYI; SOC $220 \mathrm{YI}, 30 \mathrm{YYI}, 309 \mathrm{YI}, 360 \mathrm{YI}, 367 \mathrm{HI}, 370 \mathrm{YI}, 373 \mathrm{HI}, 374 \mathrm{HI}$; SPA $380 \mathrm{HI} ;$ UNI $3 I 7 \mathrm{YI}, 37 \mathrm{IHI}$;VIS $3 I O H I$

Group E: Disability
PHL 383 HI ; SOC $360 \mathrm{YI}, 363 \mathrm{HI}, 373 \mathrm{HI}, 374 \mathrm{HI}$;WGS 366 HI
Note: students are responsible for checking the co- and prerequisites for all courses in Groups A,B,C,D and E

Human Biology: see Life Sciences, Human Biology

## Paradigms and Archetypes (Arts program)

Consult Program Director, Dr. Ann Yeoman, New College, 416-978-8659. For general enquiries call 416-978-5404 or email nc.programs@utoronto.ca.
Enrolment in this program is open to students who have completed four courses; no minimum GPA is required.

## Minor program:

(4 full courses or their equivalent)
. NEW 209YI
2. NEW 30IYI/304YI
3. One full course equivalent from NEW 30IYI (if not chosen in 2 above), NEW 302YI, NEW 303HI, NEW 304YI (if not chosen in 2 above), NEW 306HI, NEW 308 HI , NEW 402 YI , NEW 403 HI , NEW 404HI, NEW 432YI
4. One full course equivalent from HPS 20IHI, HPS 202 HI , HPS $210 \mathrm{HI}, \mathrm{HPS} 21 \mathrm{HI}, \mathrm{HPS} 250 \mathrm{HI} ; \mathrm{NMC}$ I0IYI, I85YI, 20IYI; RLG IOIYI, 204YI, RLG 205YI, RLG 206YI, RLG 2IIYI, RLG 23 IHI ; any NEW courses listed in 3 above.

## South Asian Studies (Arts program)

Consult Program Director, Professor K. Goonewardena, 416-978-5526 or the Program Office, 416-978-5404 or email nc.programs@utoronto.ca.
Enrolment in the South Asian Studies programs is open to students who have completed four courses; no minimum GPA required.

## Specialist program:

( 10 full courses or their equivalent: including at least four 300+ series courses with at least one full course at the 400-level)
I. Two language courses from NEW $2 I I Y|, 2| 2 Y|, 213 Y|$, $3 I I Y I, 3 I 2 Y I, 3 I 5 Y I$; or demonstrate intermediate (2nd Year level) proficiency in another South Asian language by examination administered by the South Asian Studies Program
2. NEWII4YI
3. HIS282YI
4. NEW4I3HI
5. NEW4I4HI
6. One course from: POL20IYI, POL4I7YI, POL445, or other social science course approved by the Director
7. One course from: EAS $368 \mathrm{YI}, 468 \mathrm{YI}$; NEW $2 \mathrm{I} 4 \mathrm{YI}, 306 \mathrm{HI}$; NMC 185 YI ; RLG 100 Y I, $205 \mathrm{YI}, 206 \mathrm{YI}, 207 \mathrm{HI}, 209 \mathrm{HI}$, $280 \mathrm{YI}, 36 \mathrm{HI}, 363 \mathrm{HI}, 365 \mathrm{HI}, 366 \mathrm{HI}$, or other course in religion or philosophy approved by the Director.
8. Three additional courses from Group A (below); or five additional courses from Group $A$, in the case of a student satisfying the language requirement (see I. above) by examination rather than by A\&S courses

## Major program:

(6 full courses or their equivalent, including two 300+ series courses)
I. NEWII4YI
2. HIS 282YI
3. Four additional courses from Group A (below)

## Minor program:

(4 full courses or their equivalent, including at least one at the 300+ level; 2 courses must have full South Asian content)
I. NEWII4YI
2. Three approved courses from Group A (below)

Note: Some courses may be offered in alternate years.

## Group A:

EAS 33IYI, $368 \mathrm{YI}, 379 \mathrm{HI}, 468 \mathrm{YI}$; ENG $270 \mathrm{YI}, 370 \mathrm{HI}$; HIS $282 \mathrm{YI}, 364 \mathrm{HI}, 38 \mathrm{IHI}, 382 \mathrm{HI}, 386 \mathrm{YI}, 389 \mathrm{HI}, 394 \mathrm{HI}, 470 \mathrm{HI}$, $480 \mathrm{HI}, 48 \mathrm{IHI} ; \mathrm{HUM}$ IOIYI; MUS 200HI; NEW 2IIYI, $212 \mathrm{YI}, 213 \mathrm{Y}, 214 \mathrm{YI}, 215 \mathrm{HI}, 216 \mathrm{HI}, 2 \mathrm{I} 7 \mathrm{HI}, 224 \mathrm{YI}, 306 \mathrm{HI}$, 308HI, 3IIYI, 3I2YI, 3I5YI, 324YI, 326YI, 4I3HI, 4I4HI; NMC I85YI; POL 20IYI, 357YI, 4I7YI, 445YI; RLG I00YI, $205 \mathrm{YI}, 206 \mathrm{YI}, 207 \mathrm{HI}, 209 \mathrm{HI}, 280 \mathrm{YI}, 36 \mathrm{HI}, 363 \mathrm{HI}, 365 \mathrm{HI}$, $366 \mathrm{HI} ; W G S 334 \mathrm{HI}, 368 \mathrm{HI}, 425 \mathrm{YI}$; or other courses with the approval of the Director of the SAS program

## Women's Studies: see Women and Gender Studies

## New College Courses

See page 33 for Key to Course Descriptions..
For Distribution Requirement purposes (see page 27), all NEW courses are classified as HUMANITIES courses except NEW 240YI, 24IYI and NEW250YI, which count as SOCIAL SCIENCE or HUMANITIES course.

## African Studies Courses

NEWI50YI Introduction to African Studies 52L
A multi-disciplinary study of Africa, emphasizing inquiry and critical analysis. Pre-colonial, colonial and contemporary African history, anthropology, politics, African humanism and society, religion, art, music, race, resistance, gender and Pan-Africanism.

## NEW250YI Africa in the 21 st Century: 52L, 26T Challenges and Opportunities

An introduction to the study of Africa as a living place rather than merely a site for intellectual speculation and study. This course explores the issues that engage the attention of ordinary Africans, ranging from the dramatic to the seemingly trivial but quotidian concerns that occupy our lives. Topics covered will include urban life, family networks, kinship and social capital, religion and belief systems, indigenous government, courts and judicial processes, migration, and land tenure. Materials studied will include the various African media in Toronto - radio, television, newspapers, literature, religion, politics, sports, music, film and food - as well as BBC World Service, allAfrica and Panapress and several African socio-cultural journals and texts. This is a Humanities or Social Science course.

## NEW252YI African Systems of Thought (formerly JAP256HI)

The exploration of a range of African cosmologies, epistemologies, and theologies, as well as specific case studies on justice, the moral order, and gender relations. The influence of these richly diverse traditions is traced as well in the writings of African thinkers in the Diaspora.
Exclusion: JAP256HI/JAP356HI

NEW280YI Introductory Swahili
26L, 78T
Introduction to grammar and basic vocabulary of Swahili. Emphasis on comprehension and oral practice. Reading of selected texts. Relation of the language to its East African cultural context. (Offered in alternate years)

## NEW28IYI Introductory Somali

 104LIntroduction to grammar and basic vocabulary of Somali. Emphasis on comprehension and oral practice. Reading of selected texts. Relation of the language to its cultural context in the Horn of Africa.

## NEW296YI Black Freedom <br> 52L, 26T

People of African descent - from Olaudah Equiano to Angela Davis - have made profound contributions to the intellectual history and political practice of freedom in the Atlantic world. Black writers and historical actors have been at the vanguard of re-conceiving, implementing, and realizing the Enlightenment project of freedom.
Exclusion: HIS296YI
NEW322YI The Contemporary African Novel 52 S
Novels written in the last forty years by English, French and Portuguese-speaking Africans. Ideological views concerning colonialism and neo-colonialism. Tradition, religious and secular; the use of African symbolism. A small number of historical and sociological texts are recommended as essential background reading. Works not written in English are read in translation. (Offered in alternate years)

## NEW350HI Special Topics in African Studies 26L

Topics vary from year to year, depending on the instructor.
Recommended preparation: NEWI50YI

## NEW352YI African Cinemas 26L, 78P (formerly JNI388YI)

History and practice of African Cinemas studied from an interdisciplinary perspective through examination of films and production contexts, within the context of contemporary African history. (Offered in alternate years)
Prerequisite: INIII5YI/NEWI50YI
Exclusions: JNI388Y I/INI483HI
NEW380YI Intermediate Swahili 26L, 78T
Grammar and syntax. Conversation and written composition. Reading of texts: literary, journalistic. Relation of the language to its East African context. (Offered in alternate years) Prerequisite: NEW280Y।
NEW450HI Advanced Topics in African Studies 26S A required course for all Specialists and Majors in the African Studies Program, enrolment is restricted to students enrolled in the program in their final year of study. The seminar is taught by the core faculty in the African Studies Program and is designed to build upon the accumulated knowledge of students and the interdisciplinary nature of the program. Topics vary from year to year.

## Buddhism, Psychology and Mental Health

## Courses

## NEW2I4YI Socially Engaged Buddhism

 52LA comprehensive survey of socially engaged Buddhism. Particular focus on contemporary movements in Vietnam, Tibet, China \& Taiwan, Sri Lanka, Thailand, and India. The role of women in Buddhism.

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NEW333HI Special Topics in Buddhism, 26L
    Psychology and Mental Health
Topics vary from year to year, depending on the instructor.
Recommended preparation: NEW2I4YI/RLG206YI
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## NEW432YI The Healing Mind:Theories \& <br> $52 S$

``` Applications of Buddhist Psychology (formerly NEW402YI)
Explores the contributions of Buddhism to the study of human consciousness and behaviour. Focus is on the expanding academic discourse on the intersection of Buddhist and Western theories of psychology, phenomenology and psychotherapy. Includes analyses of the application of Buddhist mindfulness meditation in clinical interventions for mental and physical disorders.
Exclusion: NEW402YI
Recommended preparation: NEW2I4YI/RLG206YI
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## NEW433HI Advanced Special Topics in <br> Buddhism, Psychology and Mental Health

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An upper-level seminar. Topics vary from year to year, depending on the instructor. Topic for 2007-2008: Buddhist Perspectives on Mind and Knowledge
Recommended preparation: NEW2I4YI/RLG206YI
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## Caribbean Studies Courses

NEW223YI Caribbean Literature and Society $52 S$
A study of Caribbean writers of fiction, poetry and drama, drawn from the major linguistic and racial/cultural groups in the region. Works are analyzed as literary texts and within the contexts of social and political life in which the writing is situated.
NEW224YI Caribbean Thought I 52L, 26T
A multi-disciplinary exploration of writing pertaining to culture and consciousness particularly Afro- and Indo-Caribbean thought: theoretical perspectives on the implications and consequences of slavery and indenture, the struggle for freedom from the legacy of the plantation and colonial dependence, responses to domination and exploitation, race, gender, religion and music.
Recommended preparation: HISI06YI
NEW324YI Caribbean Thought II
Critical enquiry at an advanced level into the construction of society, race, language, religion, culture and gender; theories of economy, resistance, self-affirmation, continuing colonization and place of the Caribbean within the global context; internal and external theoretical perspectives on "the Caribbean personality."
Prerequisite: NEW224Y।

## NEW325HI Caribbean Women Thinkers

An examination of the historical and political significance of writings (literary, political, scholarly) by Caribbean women who engage problems within Caribbean culture and provide insights into the endeavours of the peoples of the region.
NEW326YI Indenture, Survival, Change 52L
Indian survival in the Caribbean despite hardships of indentured labour; social and cultural change; role of Hinduism and Islam; resistance to Colonial domination; contribution of IndoCaribbean intellectuals to literature, politics, and education. (Offered in alternate years)

## NEW327YI The Hispanic Caribbean: Race, Religion and Revolution in Cuban History and Culture

Examines Cuba's relevance and legacy from the mid-nineteenth century to the present. Explores the tensions of Cuban life in counterpoint with its creative rendering in the arts and literature, through a variety of fresh approaches in fields such as cultural studies, historical sociology, anthropology, and sociology of religion.
Recommended preparation: LAS200YI/NEW224Y
NEW422YI Performing and Transforming 52S, 78P the Caribbean
Addresses ways in which performance can be a force for cultural resistance and social change. Examines Caribbean performances such as jonkonnu, theatre, dance hall and carnival, looking at how these forms engage questions of neocolonialism, transculturation, gender, race and nation, community and identity and diasporic memory.
Prerequisite: NEW324YI or permission of instructor
NEW 423HI Special Topics in Caribbean Studies 26S
An upper-level seminar. Topics vary from year to year, depending on the instructor.
Prerequisite: NEW 324YI

## NEW424YI The Capitalist Press and the 78S

 New ImperialismSocial analysis of the state-corporate mainstream capitalist press (print/electronic) problematically named "The Free Press"; its racist-sexist globalizing EuroAmerican cultural imperialism; the production of the commoditized consumer-subject and other re-conquest narratives and their implications for Caribbean and other World Majority peoples. Prerequisite: NEW324YI
$\begin{array}{ll}\text { NEW426HII/ } & \begin{array}{l}\text { Special Topics in Caribbean } \\ \text { Studies }\end{array}\end{array}$ 39S/78S An upper level seminar. Topics vary from year to year, depending on the instructor.
Prerequisite: NEW 324YI

## Equity Studies Courses

NEW2I4YI Socially Engaged Buddhism 52L
See Buddhism, Psychology and Mental Health Courses above
NEW240YI Introduction to Equity Studies 52L
An interdisciplinary study of issues of social diversity exploring debates about the origins of inequity and the various means of addressing it. Course readings draw from a broad range of relevant literature in the Humanities, Social Sciences, and Natural and Medical Sciences.

NEW24IYI Introduction to Disability Studies 52L Introduces students to the theory and practice of Disability Studies. Explores the history of the development of disability studies. Examines cultural representations of disability and critically assesses the ways disability is conceptualized in societal institutions. Forms of disability activism are also discussed.

## NEW34IHI/ Special Topics in Equity Studies

## 342HI

An upper level seminar dealing with topics related to Equity Studies.
Prerequisite: NEW240YI or permission of instructor

NEW343HI The Romani Diaspora in Canada 26L Romani history and culture through theories on the origins and diaspora of the Roma (often misnamed "gypsies"). Historic and current equity issues facing the Roma people (particularly newcomers) in Canada from cl890 to the present. Recommended preparation: NEW 240YI or a course in East

European History
NEW344YI Selected Topics in Equity Studies
52L
An upper level course. Topics vary from year to year. Prerequisite: NEW240YI or permission of instructor
NEW349HI Selected Topics in Disability Studies 26S
An upper level course. Topics vary from year to year.
Prerequisite: NEW240YI/366HI/SOC $373 \mathrm{HI} / 374 \mathrm{HI}$
NEW44IHII Advanced Topics in Equity Studies 26S 442HI
An advanced level seminar course. Topics vary from year to year.
Prerequisite: NEW240YI or permission of instructor
NEW444HI Social Change and Non-Violence 26S
Examines theories and practices that promote the building of cooperative, non-violent communities. Grounded in a series of historical cases studies, including the Sri Lankan Sarvodaya movement, the course critically considers Gandhian principles and the ways in which these have been translated into collective action.
Prerequisite: NEW 240 Y or permission of the instructor
NEW449HI Advanced Topics in Disability 26S Studies
An advanced level seminar course. Topics vary from year to year.
Prerequisite: NEW240YI/366HI/SOC373HI/374HI

## Paradigms and Archetypes Courses

## NEW209YI Stories 52L, 26T

Examines cross-disciplinary issues raised by the telling and retelling of stories: sequence and consequence; narrative as argument and proof by scenario; construction and deconstruction of identities; instabilities amongst "history," "fact," "fiction," "myth," "law" and "science". Works by Darwin, Davis, Gould, Kincaid, Kuhn, Ondaatje, Plato, etc.
NEW30IYI Analogy and Its Rituals 52L 26T
Issues of rhetorical proof, analysis and interpretation in open (alogical) systems; mediation and the media; the scandal of chaos; motives for metaphor, custom and culture, anatomies of reason, idea and ideology. (Offered in alternate years) Recommended preparation: NEW 209Y

## NEW302YI C.G.Jung: Stories, 52L Dilemmas, Rituals

Impact of Jung's analytical psychology, critical methodology and interpretative practice on issues in religion, anthropology, art and literature, popular culture, gender studies and postmodernist critique. Theoretical studies include traditional Jungian and contemporary post-Jungian texts together with antiJungian, feminist, and non-Jungian sources.
Prerequisite: At least one course in the humanities
NEW303HI The Hypothesis of the Unconscious 26L Current discussions of the hypothesis, especially Jung's collective unconscious; critical examination through retrospective analysis of the evolution and development of the concept in works from
philosophy, psychology, poetry, ethnology, science and popular culture that anticipated, influenced or were influenced by the work of Freud and Jung, post-Freudians and post-Jungians. Recommended preparation: NEW 302YI

## NEW 304YI Dilemmas

52L 26T
Issues raised by the problem/solution paradigm and the construction of truth as binary; strategies of paradox, aporia, paradigm anomaly, enigma, puzzlement; mystery and mystification; crisis, crux and apocalypse. Authors studied include Ryle, Mill, Carroll, Tolstoy. (Offered in alternate years) Recommended preparation : NEW 209YI

## NEW306HI Rabindranath Tagore: Paradigms of Culture <br> See South Asian Studies Courses below

NEW308HI Satyajit Ray: Paradigms of Vision
See South Asian Studies Courses below
NEW 402YI Advanced Special Topics in $52 S$ Paradigms and Archetypes
Topics vary from year to year, depending on the needs of the program and the interests of students and instructors. Prerequisite: Permission of instructor

## NEW 403H/ Advanced Special Topics in 26S 404H Paradigms and Archetypes

Topics vary from year to year depending on the needs of the program and the interests of students and instructors. Topic for 2007-2008: Psyche Stories.
Prerequisite: Permission of instructor

## Independent Studies Courses

New College Independent Study courses are designed both to complement regular offerings in New College programs and to provide an opportunity for New College students in any program to enrich their studies. The normal expectation of a project course is that the student, aided and advised by the supervisor, will read relevant literature, and plan, execute, analyze and report on an original and independent investigation of an appropriate topic. Written applications (detailed proposal, reading list and a letter of support from a faculty member who is prepared to supervise) should be made through the Program Office for approval by the College's Committee for Academic Affairs by May I for the Summer Session or by the last Friday in August for the Winter Session. Students will be notified of the acceptance or rejection of an application. For more information and application forms, please see the Independent Studies website: http://www.newcollege.utoronto.ca/academic-programs/ independent-studies/
Enquiries: New College, Room 132 (978-5404)
NEW299YI Research Opportunity Program
Credit course for supervised participation in faculty research project. See page 47 for details.
NEW390YI/ New College Independent Studies TBA

## 490YI

Prerequisite: Permission of College
NEW39IHII New College Independent Studies
TBA
491HI
Prerequisite: Permission of College

## South Asian Studies Courses

## NEWII4YI Introduction to South

Asian Studies
An interdisciplinary introduction to South Asian Studies emphasizing inquiry and critical analysis, drawing attention to the specificities of individual nations as well as the factors (historical, political, economic and cultural) that define it as a region. Some attention will be paid to the South Asian diaspora.

## NEW2IIYI Introduction to Bengali <br> 104L

Intensive introduction to phonology, grammar, syntax of the modern Bengali language; emphasis on basic writing and reading. Exclusion: SAS 201YI; enrolment subject to placement evaluation

NEW2I2YI Introduction to Hindi
104L
Intensive introduction to phonology, grammar, syntax of the modern Hindi language; emphasis on basic writing and reading. Exclusion: SAS 202YI; enrolment subject to placement evaluation
NEW2I3YIY Introduction to Tamil
104L
Intended for students with little or no knowledge of written Tamil. Intensive introduction to phonology and grammar; syntax of the modern Tamil language; emphasis on basic writing and reading. Exclusion: High school Tamil

NEW2I4YI Socially Engaged Buddhism 52L See Buddhism, Psychology and Mental Health Courses above
NEW2I5HI Colonial Thought and Postcolonial 26L Practice in Bengal
An interdisciplinary history, beginning with colonialism as a moment of transition, of the ways in which colonial ideology and indigenous resistance shaped the contours of culture and politics in Bengal until Independence; consideration of factors that provide a sense of unity to Bengali culture while accommodating changes and transformations. (Taught in the summer program only).

## NEW2I6HI South Asia: Perspectives on 26L Politics and Society

A critical overview of South Asia, considering historical and social factors that account for both distinctiveness and connections among nations and communities. Special attention to the major role played by postcolonial histories in establishing the separate trajectories of each nation while preserving the significance of the region as a whole.

## NEW2I7HI Tamil Studies in South Asia and 26L the Diaspora <br> An interdisciplinary approach that explains the complexity and multiplicity of Tamil culture. An historical approach to the evolution of Tamil culture over the last twenty centuries. Issues of region, space, politics, and religion will aid in an understanding of contemporary Tamil culture, both in South Asia and the diaspora.

## NEW306HI Rabindranath Tagore: Paradigms of Culture

Examines Tagore's concepts of humanity, art, personality, freedom, nationalism, ashram, science, education. Evaluates Tagore's literary contribution, his work in rural reconstruction, and Tagore-Gandhi tensions over education and the non-cooperation movement. Reading knowledge of Bengali not presumed; however students with knowledge of language encouraged to read materials in Bengali.

NEW308HI Satyajit Ray: Paradigms of Vision 26L Examines the artistic vision of Satyajit Ray as chronicler of Bengali culture and one of the greatest filmmakers of our time: his life and work; his films as expressions of his humane vision; cultural orientation and values; fictional compositions, visual and musical artistry; affinities and continuity with Rabindranath Tagore. Reading knowledge of Bengali not presumed; however students with knowledge of language encouraged to read materials in Bengali.
NEW3IIYI Readings in Bengali Literature I04L Readings from selected authors of modern Bengali prose and poetry; introduction to samples of pre-modern Bengali texts.: Exclusion: SAS 301 YI ; enrolment subject to placement evaluation. Prerequisite: NEW 2IIYI/SAS 201YI/ permission of instructor

## NEW3I2YI Readings in Hindi Literature I04L

Readings from selected authors of modern Hindi prose and poetry; introduction to samples of pre-modern Hindi texts. Exclusion: SAS 302 YI ; enrolment subject to placement evaluation Prerequisite: NEW 2I2YI/SAS 202YI/permission of instructor

## NEW3I5YI Intermediate Bengali I04L

Enables students to achieve an elevated level in Bengali in order to read on their own and compose short paragraphs. Provides the required skills to appreciate Bengali literature with comfort. Topics covered: Grammar - Euphonic combination; Onomatopoetic \& Compound words; Phrases \& Idioms. Distinction between Chaste and Standard Colloquial styles of the language.
Prerequisite: NEW 2I IYI/SAS 201YI/ permission of instructor
NEW4I3HI/ Advanced Special Topics in 26S 414HI South Asian Studies
An upper-level seminar. Topics vary from year to year, depending on the instructor

## Nutritional Sciences: see Life Sciences: Nutritional Sciences

Peace \& Conflict Studies: see University College

Pharmacology: see Life Sciences: Pharmacology

Pharmaceutical Chemistry: see Life Sciences: Pharmaceutical Chemistry

## Faculty

University Professors Emeriti
I. Hacking, MA, Ph D, FRSC (V)
F.E. Sparshott, MA, FRSC (V)

Professors Emeriti
J.V. Canfield, AM, Ph D (UTM)
D.P. Dryer, AM, Ph D, FRSC
D.D. Evans, BA, BD, D Phil (V)
R.B. DeSousa, BA, Ph D
L.W. Forguson, MA, Ph D (U) (obit)
D. Goldstick, BA, D Phil
A. Gombay, MA, B Phil (UTM)
W.C. Graham, MA, Ph D (University of Toronto Scarborough)
C.M.T. Hanly, BA, MÈS L, D Phil
W.R.C. Harvey, MA, LL B, Ph D (V)
H.G. Herzberger, AM, Ph D
W.J. Huggett, MA, Ph D (UTM)
R.A. Imlay, MA, Ph D (U)
E.J. Kremer, AB, Ph D (SM)
T.D. Langan, AM, Ph D (SM)
A.A. Maurer, MA, MSL, Ph D (SM)
R.F. McRae, MA, Ph D (U)
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G.A. Nicholson, MA, BD, Ph D (T)
H. Pietersma, MA, Ph D (V)
T.M. Robinson, BA, BLitt, DLitt
K.L. Schmitz, MA, MSL, Ph D (T)
J.G. Slater, MA, Ph D (W)
J.H. Sobel, MA, Ph D (University of Toronto Scarborough)
J.T. Stevenson, MA (U)
M.T.Thornton, B Phil, MA, Ph D (V)
A.I.F. Urquhart, MA, Ph D
J.M.Vertin, MA, STL, Ph D (SM)
F.F.Wilson, B Sc, MA, Ph D, FRSC (U)

Associate Professor and Chair of the
Department
D.C.Ainslie, B Sc, MA, Ph D (U)

Associate Professor and Associate Chair (Undergraduate)
J.M. Heath, MA, Ph D (U)

Associate Professor and Associate Chair (Graduate)
P. Kremer, BSc, Ph D (University of Toronto Scarborough)

University Professors
L.W. Sumner, MA, Ph D, FRSC

## Professors

D.P.H.Allen, MA, B Phil, D Phil (T)
D.L. Black, MA, Ph D (SM)
J. Boyle, BA, Ph D (SM)
J.R. Brown, MA, Ph D
P. Clark, BA, Ph D (UTM)
F.A. Cunningham, MA, Ph D, FRSC
D. Dyzenhaus, D Phil, FRSC
P. Franks, MA Ph D (UTM)
L. Gerson, AM, Ph D (SM)
R.B. Gibbs, MA, Ph D (U)
W. Goetschel, Lic Phil, Ph D
P.W. Gooch, MA, Ph D (V)
T.M. Hurka, BA, B Phil, D Phil, FRSC
D.S. Hutchinson, BA, B Phil, D Phil (T)
B.C. Inwood, MA, PhD, FRSC
B.D. Katz, MA, Ph D (UTM)
P. King, BA, Ph D
M. Kingwell, M Litt, Ph D (T)
M. Matthen, B Sc, MA, Ph D (UTM)
C. Misak, MA, D Phil, FRSC
K.P. Morgan, MA, M Ed, Ph D (N)
M. Morrison, MA, Ph D (T)
A. Mullin, Ph D (UTM)
D. Raffman, BA, Ph D (UTM)
A. Ripstein, MA, Ph D
W.E. Seager, MA, Ph D (University of Toronto

Scarborough)
V. Shen, MA, MA, Ph D
I. Leman Stefanovic, MA, Ph D (SM)
E. Thompson, MA, Ph D (U)
J.E. Whiting, BA, MA, Ph D

## Associate Professors

R. Barney, BA, Ph D
R. Comay, MA, Ph D (V)
L. Lange, MA, Ph D (University of Toronto Scarborough)
M. Rozemond, Kand., Ph D (UTM)
S.A. Sedivy, BA, Ph D (University of Toronto Scarborough)
G. Sreenivasan, BA, B Phil, Ph D
S. Tenenbaum, BA, Ph D (UTM)
D. Walsh, BSc, Ph D, BA, M Phil, Ph D
B. Yi, MA, Ph D (UTM)

## Assistant Professors

T.J. Berry, MA, Ph D
I. Dickie, B Phil, Ph D
J.S. Hawkins, MA, Ph D (University of Toronto

Scarborough)
B. Hellie, BA, Ph D (University of Toronto Scarborough)
J. John, BA, Ph D
M.T. Lin, BA, Ph D (University of Toronto Scarborough)
S.R. Moreau, B Phil, Ph D, JD
J. Nagel, MA, Ph D (UTM)
M. Pickavé, MA, Ph D
G.S. Rattan, B Sc, Ph D (UTM)
J.Weisberg, BA, Ph D (UTM)
J.Wilson, BA, Ph D (University of Toronto Scarborough)

## Lecturer

N. Scharer, MA, Ph D

The Greek words from which "Philosophy" is formed mean
"love of wisdom" and all great philosophers have been moved by an intense devotion to the search for wisdom. Philosophy takes no belief for granted, but examines the grounds for those beliefs which make up people's fundamental views of the world. Philosophers think about these beliefs as thoroughly and systematically as possible, using methods of conceptual analysis,
reasoning, and detailed description.
What distinguishes Philosophy from the physical and social sciences is its concern not only with the truths which are discovered by means of specialized methods of investigation, but with the implications that such discoveries have for human beings in their relations with one another and the world. Moreover, Philosophy has an abiding interest in those basic assumptions about the nature of the physical and social world, and about the nature of enquiry itself, which underlie our scientific and practical endeavours.

The Philosophy Department at the University of Toronto offers courses in the main periods and areas of Philosophy, which are listed here with a typical question or the name of one or two central figures: Ancient Philosophy (Plato, Aristotle); Mediaeval Philosophy (Augustine, Aquinas); Early Modern Philosophy (Descartes, Hume, Kant); Nineteenth-Century Philosophy and Marxism (Hegel, Mill, Marx); Continental Philosophy and Phenomenology (Husserl, Heidegger, Sartre); Analytic Philosophy (Quine, Russell,Wittgenstein); Epistemology and Metaphysics (What can be known? What is the ultimate nature of reality?); Philosophy of Religion (Does God exist? How could one prove it?); Philosophy of Mind (What is mind? Is there free will?); Logic and Philosophy of Mathematics (What is sound reasoning? Do numbers exist?); Philosophy of Language (What is the meaning of "meaning"?); Philosophy of Natural Science (What is scientific method?); Philosophy of Social Science and History (Can there be a science of humans?); Social and Political Philosophy (What justifies the state?); Moral Philosophy (How should we argue rationally about right and wrong?); Aesthetics (What is art? Must it be beautiful?). In addition, the Department offers Seminars (numbered PHL $400 \mathrm{HI}-489 \mathrm{HI}$ ) and Individual Studies courses (numbered PHL 490YI, PHL 495HI-499HI).
Counselling is available in the main departmental office, 215 Huron St., 9th floor. In addition, the Department publishes an annual Bulletin. It contains full and up-to-date information on programs and courses, including names of instructors and descriptions of particular course sections. The Bulletin is published in the spring (for the succeeding year) and is available on the Department's website and at 215 Huron Street, and from all College registrars.

Undergraduate Coordinator:
Professor J. M. Heath, 215 Huron Street, Room 903 (416-97833I4), undergrad.phil@utoronto.ca
Undergraduate Counsellor:
Ms.Alisa Rim, 215 Huron Street, Room 904 (4I6-978-33I4), alisa.rim@utoronto.ca

Website:
http://philosophy.utoronto.ca
Please note that all administrative offices are scheduled for relocation to 170 St. George St., $4^{\text {th }}$ floor, beginning Sept. 2007.

## Philosophy Programs

Enrolment in Philosophy programs is open to students who have completed four courses; no minimum GPA required.

NOTE: No more than one individual studies course can be counted towards any philosophy program. Normally, no more than one-half individual studies course can be counted towards the 400-level course requirement for any Specialist or

Combined Specialist Philosophy program.

## Bioethics: see end of Philosophy program listing_

## Philosophy (Arts program)

## Specialist program:

(9 full courses or their equivalent)
At least 4.5 full $300+$ series PHL courses, including one full 400series PHL course. While students are encouraged to follow their personal interests and aims, it is strongly recommended that programs include courses in the following areas:

| I.0 | Introductory |
| :--- | :--- |
| 2.0 | History of Philosophy |
| 0.5 | Logic |
| I.0 | Epistemology/Metaphysics/Philosophy of Mind/ |
|  | Philosophy of Language/Philosophy of Science |
| 1.0 | Ethics/Social and Political |

Major program:
(6 full courses or their equivalent)
The 6 courses must include at least 3 full 300+ series PHL courses.

It is strongly recommended that Programs include courses in the following areas:

| I.0 | Introductory |
| :--- | :--- |
| 2.0 | History of Philosophy |
| 0.5 | Logic |
| I.0 | Epistemology/Metaphysics/Philosophy of Mind// |
|  | Philosophy of Language/Philosophy of Science |
| 0.5 | Ethics/Social and Political |

## Minor program:

(4 full courses or their equivalent)
Four courses in PHL to include one full course at the 300+ level.

It is strongly recommended that Programs include courses in the following areas:

| 1.0 | History of Philosophy |
| :--- | :--- |
| 1.0 | Problems of Philosophy |

## Philosophy and Economics: see Economics

Philosophy and English: see English

## Philosophy and Linguistics: see Linguistics

## Philosophy and Literary Studies: see Literary

 Studies
## Philosophy and Mathematics: see Mathematics.

Philosophy and Physics: see Physics
Philosophy and Political Science (Arts program)
Limited Enrolment program: see details under Political Science.

## Specialist program:

(14 full courses or their equivalent, including at least one full 400-series course: 7 in each subject)

## Philosophy ( 7 courses):

The courses to include at least two full 300+ series PHL courses; it is strongly recommended that five be chosen according to the profile specified in the Philosophy Specialist Program above.

## Political Science (7 courses):

The courses to include at least one full 300+ series course and one 400 -series course.

NOTE: At least one course in Canadian politics must be completed. The Canadian politics requirement will be satisfied by only POL I03YI/2I4YI

First Year:
POL I03YI/I05YI/I08YI
Higher Years:
I. POL 200YI
2. Two full courses from the following: POL $201 \mathrm{YI} /(203 \mathrm{YI} /$ $207 \mathrm{YI}) / 208 \mathrm{YI} / 214 \mathrm{YI} / 215 \mathrm{YI}$
3. Three additional POL courses

## Philosophy and Religion (Arts program)

## Specialist program:

( 14 full courses or their equivalent, including at least one 400series course: 7 in each subject)

Philosophy ( 7 courses):
Including at least two full 300+ series PHL courses, with five chosen according to the following profile:

| 2.0 | History of Philosophy |
| :--- | :--- |
| 0.5 | Logic |
| 1.0 | Epistemology/Metaphysics/Philosophy of Mind/ |
|  | Philosophy of Language/Philosophy of Science |
| 0.5 | Ethics/Social and Political |
| 1.0 | Philosophy of Religion |

## Religion (7 courses):

Including at least two full 300+ series RLG courses, with five chosen according to the following profile:

| I.0 | RLG I00Y I/280YI |
| :--- | :--- |
| 1.0 | in a specific religious tradition |
| 1.0 | employing historical method |
| 1.0 | employing philosophical method |
| 1.0 | employing social-scientific method |

## Philosophy of Science (Arts Program)

## Specialist program:

(IO full courses or their equivalent, at least four of which must be at the 300 -level or above, including at least one full 400 series PHL course)
First Year:
Required: One full science course, normally at the 100 -level,
from, CHM, CSC, GLG, BIO, JMB, PSY, MAT, PHY, STA
Note: Courses listed under "Science Courses for Humanities and Social Science Students" (see pp.24-25) cannot be counted towards this requirement.
Recommended: PHL I00YI, HPS 100HI
Higher Years:
I. HPS $250 \mathrm{HI}, \mathrm{PHL} 232 \mathrm{HI}, \mathrm{PHL} 245 \mathrm{HI}, \mathrm{HPS}, 350 \mathrm{HI}, \mathrm{PHL}$ 355 HI
2. One of HPS $322 \mathrm{HI} / \mathrm{PHL} 346 \mathrm{HI} / 356 \mathrm{HI} / \mathrm{PHL} 357 \mathrm{HI}$
3. One of PHL $33 \mathrm{IHI} / \mathrm{PHL} 332 \mathrm{HI}$
4. 4 to 5.5 additional full courses in Philosophy (depending on whether PHL IOOYI and HPS 100 HI are taken in first year). It is highly recommended that these courses include the following: HPS2 $10 \mathrm{HI}, \mathrm{HPS} 2 \mathrm{IIHI}, \mathrm{PHL} 210 \mathrm{Y} I, \mathrm{PHL}$ 246 HI , one of PHL 4 II 5 HI or 482 HI . (For the purposes of this requirement, HPS 210 HI and HPS 2 IIHI are counted as Philosophy courses).

## Philosophy and Sociology (Arts program)

## Specialist program:

(14.5 full courses or their equivalent, including at least one 400series course: 7 in Philosophy and 8 in Sociology)

## Philosophy ( 7 courses):

It is strongly recommended that five courses be chosen according to the profile specified in the Philosophy Specialist program above; at least two must be 300+ series courses.

## Sociology ( 7.5 courses):

NOTE: Enrolment in this Program is limited to students with $65 \%$ in SOC IOIYI, and $70 \%$ in each of SOC $200 \mathrm{HI}, 202 \mathrm{HI}$, 203 YI , and 204 HI . Students need to have completed 7.5 full courses and be enrolled in the Sociology Major program.

First Year:
SOC IOIYI
Higher Years:
I. SOC $200 \mathrm{HI}, 202 \mathrm{HI}, 203 \mathrm{YI}, 204 \mathrm{HI}, 300 \mathrm{HI}, 376 \mathrm{HI}, 377 \mathrm{HI}$, 387HI, 40IYI
2. An additional 1.0 courses in a $200+$ level SOC course related to Philosophy

## Bioethics (Arts program)

## Specialist program:

(9 full courses or their equivalent, at least four of which must be $300+$ series PHL courses, including one full 400 -series PHL course)

## First Year:

Recommended: PHL IOOYI
Higher Years:
I. PHL 28IYI
2. Three of PHL $380 \mathrm{HI}, 38 \mathrm{IHI}, 382 \mathrm{HI}, 383 \mathrm{HI}, 384 \mathrm{HI}$, $4 \mathrm{I} 3 \mathrm{HI}, 470 \mathrm{HI}$
3. $\mathrm{PHL} 275 \mathrm{HI}, 375 \mathrm{HI} / 407 \mathrm{HI}$
4. $\mathrm{PHL} 265 \mathrm{HI} / 27 \mathrm{IHI} / 365 \mathrm{HI} / 370 \mathrm{HI} / 4 \mathrm{I} 2 \mathrm{HI} / 483 \mathrm{HI}$
5. One full course from $\mathrm{PHL} 232 \mathrm{HI}, 240 \mathrm{HI}, 246 \mathrm{HI}, 33 \mathrm{IHI}$, $332 \mathrm{HI}, 340 \mathrm{HI}, 34 \mathrm{IHI}, 355 \mathrm{HI}, 357 \mathrm{HI}, 404 \mathrm{HI}, 405 \mathrm{HI}$, $406 \mathrm{HI}, 4 \mathrm{I} 5 \mathrm{HI}, 482 \mathrm{HI}, \mathrm{HPS} 250 \mathrm{HI}$.
6. Either three additional full courses in Philosophy; or two full courses in Philosophy plus one full course from the interdisciplinary list below. At least one course in the history of philosophy is recommended. Students are strongly encouraged to select the interdisciplinary option whenever possible.
BIO 150 YI is strongly recommended

## Major program:

(6 full courses or their equivalent, at least two of which must be $300+$ series PHL full courses)

First Year:
Recommended: PHL I00Y।
Higher Years:
I. PHL $275 \mathrm{HI}, 28 \mathrm{I} \mathrm{Y} \mathrm{I}$
2. Two of PHL $380 \mathrm{HI}, 38 \mathrm{IHI}, 382 \mathrm{HI}, 383 \mathrm{HI}, 384 \mathrm{HI}, 4 \mathrm{I} 3 \mathrm{HI}$
3. $\mathrm{PHL} 265 \mathrm{HI} / 27 \mathrm{IHI} / 365 \mathrm{HI} / 370 \mathrm{HI} / 375 \mathrm{HI} / 407 \mathrm{HI} / 4 \mathrm{I} 2 \mathrm{HI} /$ $475 \mathrm{HI} / 483 \mathrm{HI}$.
4. Two of PHL $232 \mathrm{HI}, 240 \mathrm{HI}, 246 \mathrm{HI}, 340 \mathrm{HI}, 34 \mathrm{IHI}, 355 \mathrm{HI}$, $357 \mathrm{HI}, 404 \mathrm{HI}, 405 \mathrm{HI}, 406 \mathrm{HI}, 4 \mathrm{I} 5 \mathrm{HI}, 482 \mathrm{HI}, \mathrm{HPS} 250 \mathrm{HI}$.
5. Either one other full course in philosophy, or one half-course in Philosophy and one half-course from the interdisciplinary list below. Students are strongly encouraged to select the interdisciplinary option whenever possible.
Interdisciplinary list of Bioethics-related courses outside of PHL for Specialists and Majors:
NOTE: Many of these courses have prerequisites; students who wish to use these courses for their Bioethics programs must fulfill all those prerequisites as required by the departments concerned:

ANT 348YI, ECO 369 YI , GGR 450 HI , GGR 45 IHI , HIS 423 HI, HIS 459 HI , HIS 463 HI , HIS 489 HI, HPS 3 I 8 HI , HPS $319 \mathrm{HI}, \mathrm{HPS} 323 \mathrm{HI}, \mathrm{INI} 34 \mathrm{IHI}, \mathrm{HMB} 20 \mathrm{IHI}$, JFP 450 HI , HMB 201 HI, HMB 202HI, NEW 26IYI, NEW 366HI, NEW 367HI, POL350HI, SMC 370HI, SOC 242YI, SOC 309YI, SOC 327YI, SOC $35 \mathrm{IYI}, \mathrm{SOC} 363 \mathrm{HI}$

## Minor program:

(4 full courses or their equivalent including at least one full $300+$ series PHL course)

## First Year:

Recommended: PHL IOOYI.
Higher Years:
I. PHL 28IYI
2. One of PHL $380 \mathrm{HI}, 38 \mathrm{IHI}, 382 \mathrm{HI}, 383 \mathrm{HI}, 384 \mathrm{HI}$.
3. I.5 other courses in Philosophy. It is strongly recommended that one of these courses be in ethics or political philosophy, i.e., PHL $265 \mathrm{HI} / 27 \mathrm{IHI} / 275 \mathrm{HI} / 365 \mathrm{HI} / 370 \mathrm{HI} /$ 375 HI .

## Environmental Ethics (Arts Program): see Centre for Environment

## Philosophy Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), all PHL courses are classified as HUMANITIES COURSES.

HUMI99HI/YI First Year Seminar 52S
Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course; see page 47.

## Note

Some of the courses listed here bear prefixes other than PHL. These courses may be credited toward any of the Programs in Philosophy but may normally make up no more than onesixth of a Philosophy Program. They are cross-listed here for convenience but students should consult the primary listings for course descriptions. For information on external credits, see the Philosophy Bulletin.

PHLI00YI Introduction to Philosophy 52L, 26T
An introduction to the central branches of philosophy, such as logic, theory of knowledge, metaphysics, ethics, and political philosophy. Writings from the central figures in the history of Western and non-Western philosophy, as well as contemporary philosophers, may be considered. The course is concerned with such questions as:What is sound reasoning? What can we know? What is ultimately real? Is morality rational? Do humans have free will? Is there a God?
Exclusion: PHLIO2YI, 201HI

## 200-SERIES COURSES

Note: No 200-series course has a 100 -series PHL course as prerequisite.

PHL200YI Ancient Philosophy 78L
Central texts of the pre-socratics, Plato, Aristotle, and post-
Aristotelian philosophy.
TRN200YI Modes of Reasoning
See "Trinity College Courses"
PHL2OIHI Introductory Philosophy 39
An introduction to philosophy focusing on the connections among its main branches: logic, theory of knowledge, metaphysics, and ethics. This course is intended for those with little or no philosophy background but who have completed four FCEs in any subject.
Exclusion: PHLIOOYI, IO2YI, or more than I. 0 PHL course Prerequisite: Four FCEs in any subject

## PHL205HI Early Medieval Philosophy 39L

A study of issues such as the relations of reason and faith, the being and the nature of God, and the problem of universals, in the writings of such philosophers as Augustine, Boethius, Anselm and Abelard.
PHL206HI Later Medieval Philosophy 39L
A study of issues such as the relations of reason and faith, the being and the nature of God, and the structure of the universe, in the writings of such philosophers as Aquinas and Ockham.

PHL2IOYI 17th-and I8th-Century Philosophy 78L Central texts of such philosophers as Hobbes, Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, and Kant.

## PHL2I7HI Introduction to Continental

 PhilosophyAn introduction to some of the post-Hegelian thinkers who inspired the various philosophical movements broadly referred to as "continental," such as phenomenology, existentialism, deconstruction, and post-modernism. Questions include the will, faith, death, existence, history and politics, rationality and its limits, encountering an other. Authors studied may include: Kierkegaard, Schopenhauer, Nietzsche, Marx, Freud, Heidegger, Sartre.
Exclusion: PHL2I5HI, PHL220HI

## PHL232HI Knowledge and Reality

39L
An introduction to issues in the fundamental branches of philosophy: metaphysics, which considers the overall framework of reality; epistemology, or the theory of knowledge; and related problems in the philosophy of science. Topics in metaphysics may include: mind and body, causality, space and time, God, freedom and determinism; topics in epistemology may include perception, evidence, belief, truth, skepticism.
Exclusion: PHL 230HI, PHL23IHI

## PHL235HI Philosophy of Religion 39L

Some central issues in the philosophy of religion such as the nature of religion and religious faith, arguments for the existence of God, the problem of evil, varieties of religious experience, religion and human autonomy. (Offered in alternate years)
Exclusion: PHL236YI
PHL237HI History of Chinese Philosophy 39L
An historical and systematic introduction to the main phases of Chinese philosophical development, including Confucianism, Taoism, Buddhism, and Neo-Confucianism; the challenge of Western thought and the development of modern Chinese Philosophy.
Exclusion: EAS24IHI, RLG274HI

## PHL240HI Persons, Minds and Bodies 39L

Consciousness and its relation to the body; personal identity and survival; knowledge of other minds; psychological events and behaviour.

PHL243HI Philosophy of Human Sexuality 39L
Philosophical issues about sex and sexual identity in the light of biological, psychological and ethical theories of sex and gender; the concept of gender; male and female sex roles;"perverse" sex; sexual liberation; love and sexuality.

## PHL244HI Human Nature

39L
Aspects of human nature, e.g., emotion, instincts, motivation. Theories of human nature, e.g., behaviourism, psychoanalysis.

## PHL245HI Modern Symbolic Logic

The application of symbolic techniques to the assessment of arguments. Propositional calculus and quantification theory. Logical concepts, techniques of natural deduction. Exclusion: CSC330HI
PHL246HI Probability and Inductive Logic 39L
The elements of axiomatic probability theory and its main interpretations (frequency, logical, and subjective). Reasoning with probabilities in decision-making and science.
Recommended preparation: PHL245HI

## PHL247HI Critical Reasoning

The area of informal logic - the logic of ordinary language, usually non-deductive. Criteria for the critical assessment of arguments as strong or merely persuasive. Different types of arguments and techniques of refutation; their use and abuse. Exclusion:TRN200YI
HPS250HI Introductory Philosophy of Science See "History \& Philosophy of Science \& Technology"
UNI250YI Introduction to Cognitive Science 78L
An introduction to the problems, theories and research strategies central to an interdisciplinary field focussing on the nature and organization of the human mind and other cognitive systems. Interrelations among the philosophical, psychological, linguistic and computer science aspects of the field are emphasized.
PHL265HI Introduction to Political Philosophy 39L An introduction to central issues in political philosophy, e.g., political and social justice, liberty and the criteria of good government. The writings of contemporary political philosophers, as well as major figures in the history of philosophy may be considered.

PHL267HI Philosophy of Feminism
39L
Main types of feminist theory: liberal, Marxist, Existential and "Radical". A number of ethical, political and psychological issues are considered.

## PHL27IHI Law and Morality 39L

Justifications for the legal enforcement of morality; particular ethical issues arising out of the intersection of law and morality, such as punishment, freedom of expression and censorship, autonomy and paternalism, constitutional protection of human rights.

## PHL273HI Environmental Ethics <br> 39L

A study of environmental issues raising questions of concern to moral and political philosophers, such as property rights, responsibility for future generations, and the interaction of human beings with the rest of nature. Typical issues: sustainable development, alternative energy, the preservation of wilderness areas, animal rights.
PHL275HI Introduction to Ethics 39L
An introduction to central issues in ethics or moral philosophy, such as the objectivity of values, the nature of moral judgements, rights and duties, the virtues, and consequentialism. Readings may be drawn from a variety of contemporary and historical sources.
PHL28IYI Bioethics 78L
An introduction to the study of moral and legal problems in medical practice and in biomedical research; the development of health policy. Topics include: concepts of health and disease, patient rights, informed consent, allocation of scarce resources, euthanasia, abortion, genetic and reproductive technologies, human research, and mental health.

## PHL285HI Aesthetics

39L
An historical and systematic introduction to the main questions in the philosophy of art and beauty from Plato to the present. These include the relation between art and beauty, the nature of aesthetic experience, definitions and theories of art, the criteria of excellence in the arts, and the function of art criticism.

## PHL295HI Business Ethics

Philosophical issues in ethics, social theory, and theories of human nature insofar as they bear on contemporary conduct of business. Issues include: Does business have moral responsibilities? Can social costs and benefits be calculated? Does modern business life determine human nature or the other way around? Do political ideas and institutions such as democracy have a role within business?
PHL299YI Research Opportunity Program Credit course for supervised participation in faculty research project. See page 47 for details.

## 300-SERIES COURSES

## Note

All 300-series courses have a prerequisite of three half courses (or equivalent) in philosophy, with the exception of PHL 344-
349. There is also a general prerequisite of 7.5 courses (in any field). Only specific courses required or recommended are listed below. Students who do not meet the prerequisite for a particular course but believe that they have adequate preparation must obtain the permission of the instructor to gain entry to the course.

## PHL30IHI Early Greek Philosophy <br> 39L

A study of selected Greek philosophers before Plato. Topics may include the Presocratic natural philosophers, Parmenides and the Eleatics, and the so-called sophistic movement. Prerequisite: PHL200YI
PHL302HI Ancient Philosophy After Aristotle 39L
A study of selected themes in post-Aristotelian philosophy.
Topics may include Stoicism, Epicureanism, Neoplatonism, and various forms of scepticism.
Prerequisite: PHL200YI
$\begin{array}{ll}\text { UNI302H I Bases of Cognition } & \text { 39L } \\ \text { See "University College Courses }\end{array}$
PHL303HI Plato
39L
Selected metaphysical, epistemological, and ethical themes in
Plato's dialogues.
Prerequisite: PHL200Y।
PHL304HI Aristotle 39L
Selected anthropological, ethical and metaphysical themes in the works of Aristotle.
Prerequisite: PHL200YI
PHL307HI Augustine 39L
Central themes in St. Augustine's Christian philosophy, such as the problem of evil, the interior way to God, the goal of human life and the meaning of history.
Prerequisite: PHL200YI/205HI

## PHL308HI Aquinas

Philosophical innovations that St. Thomas Aquinas made in the course of constructing a systematic theology: essence and existence, the Five Ways, separate intelligences, the human soul and ethics.
Prerequisite: PHL200YI/205HI/206HI
PHL309HI Topics in Medieval Philosophy 39L Study of a major philosophical figure from the medieval period, such as Anselm, Abelard, Bonaventure, Maimonides, Avicenna, Duns Scotus, William of Ockham; or consideration of a central philosophical topic in a variety of medieval authors, for example, universals, individuation, the existence of God, free will and free choice, eternity and creation.
Prerequisite: PHL200Y I/205HI/206HI

## PHL3IOHI The Rationalists

Central philosophical problems in philosophers such as
Descartes, Spinoza, Leibniz, and their contemporaries.
Prerequisite: PHL2IOYI
PHL3IIHI The Empiricists 39L
Central philosophical problems in philosophers such as Locke, Berkeley, Hume, and their contemporaries.
Prerequisite: PHL2IOYI
PHL3I2HI Kant 39L
A systematic study of The Critique of Pure Reason.
Prerequisite: PHL2IOYI
PHL3I5HI I9th-Century German Philosophy 39L The systems of thought that followed Kant, including Fichte, Schelling, and Hegel. Then later authors such as Schopenhauer, Marx, and Nietzsche who were, in part, critics of Hegel, but who were also creative thinkers who shaped the future. Prerequisite: PHL 3 I 2 HI

## PHL316HI Hegel

39L
An examination of Hegel's project of absolute knowing, its philosophical assumptions, and its implications for history, science and experience.
Prerequisite: PHL 3 I 2 HI
PHL3I7HI Marx and Marxism
39L
An examination of some of the leading themes in the philosophy of Karl Marx. Developments of Marxist philosophy by later thinkers, and critics of Marxism, may also be considered. Exclusion: PHL $216 \mathrm{HI}, \mathrm{PHL} 318 \mathrm{HI}$
Recommended Preparation: PHL 265HI/POL 200YI
PHL3I9HI Philosophy and Psychoanalytic 39L Theory
A study of the fundamentals of psychoanalytic theory from a philosophical perspective, focusing on the works of Freud and others. Topics include mind (conscious and unconscious), instinctual drives, mechanisms of defence, the structure of personality, civilization, the nature of conscience, and the status of psychoanalysis.
PHL320HI Phenomenology 39L
Phenomenology is a method used in the analysis of human awareness and subjectivity. It has been applied in the social sciences, in the humanities, and in philosophy. Texts studied are from Husserl and later practitioners, e.g., Heidegger, Sartre,
Merleau-Ponty, Gurwitsch, and Ricoeur.
Prerequisite: PHL2IOYI/2I7HI

## PHL32IHI Heidegger

39L
Some work from the 1920's (either Being and Time or contemporary lectures) and selections from Heidegger's later work on poetry, technology, and history are studied. Heidegger's position within phenomenology and within the broader history of thought is charted.
Prerequisite: $\mathrm{PHL} 2 \mathrm{I} 5 \mathrm{HI} / 2 \mathrm{I} 7 \mathrm{HI} / 220 \mathrm{HI}$

## PHL322HI Contemporary Continental 39L

 PhilosophyGerman and French philosophy after World War II, focusing on such topics as: debates about humanism, hermeneutics, critical theory, the structuralist movement, its successors such as deconstruction. Typical authors: Heidegger, Gadamer, Habermas, Levi-Strauss, Foucault, Derrida.
Prerequisite: $\mathrm{PHL} 217 \mathrm{HI} / 220 \mathrm{HI}$
PHL323HI Social and Cultural Theory 39L
A study of philosophical approaches to understanding various aspects of contemporary culture and/or society. Topics may include theories of modernity, capitalism and consumerism, architecture and design, cultural pluralism, globalization, media and internet.
PHL325HI Early Analytic Philosophy 39L
An examination of some of the classic texts of early analytic philosophy, concentrating on the work of Frege, Russell, and Wittgenstein.
Prerequisite: PHL 245 HI and one of $\mathrm{PHL} 232 \mathrm{HI} / 240 \mathrm{HI}$
PHL326HI Wittgenstein 39L
Wittgenstein's views on the structure and function of language, meaning, the possibility of a private language, and the concepts of feeling and thinking. The Tractatus Logico-Philosophicus and the Philosophical Investigations.
Prerequisite: PHL 245 HI and one $\mathrm{PHL} 210 \mathrm{YI} / 232 \mathrm{HI} / 240 \mathrm{HI}$

## PHL33IHI Metaphysics

 39LHistorical and systematic approaches to topics in metaphysics, such as the nature of reality, substance and existence, necessity and possibility, causality, universals and particulars.
Prerequisite: $\mathrm{PHL} 23 \mathrm{IHI} / 232 \mathrm{HI}$
Exclusion: PHL 330YI
PHL332HI Epistemology 39L
Historical and systematic approaches to topics in the theory of knowledge, such as truth, belief, justification, perception, a priori knowledge, certitude, skepticism, other minds.
Prerequisite: PHL230HI/232HI
Exclusion: PHL 330YI
PHL335HI Issues in Philosophy of Religion 39L Some specific problem(s) in the philosophy of religion, such as the relationship of religious faith and religious belief, the ontological argument for the existence of God, theories about divine transcendence, the philosophical presuppositions of religious doctrines, the modern critique of religion.
PHL336HI Islamic Philosophy
39L
An introduction to the major thinkers in classical Islamic philosophy, with emphasis placed on developing a properly philosophical understanding of the issues and arguments. Topics include the existence of God; creation and causality; human nature and knowledge; the nature of ethical obligations; and the constitution of the ideal political state.
Prerequisite: PHL200YI

## PHL337HI Topics in Chinese Philosophy

An intermediate level treatment of such topics as: human nature; good and evil; the role of emotions; the metaphysical ultimate.
Prerequisite: PHL237HI

## PHL338HI Jewish Philosophy

A selection of texts and issues in Jewish philosophy, for example, Maimonides' Guide of the Perplexed, Buber's The Prophetic Faith, prophecy and revelation, Divine Command and morality, creation and eternity, the historical dimension of Jewish thought.
PHL340HI Issues in Philosophy of Mind
Typical issues include: the mind-brain identity theory;
intentionality and the mental; personal identity.
Prerequisite: One of UNI 250 Y I/PHL240HI

## PHL34IHI Freedom, Responsibility, and Human Action

Human action, and the nature of freedom and responsibility in the light of contemporary knowledge concerning the causation of behaviour.
Prerequisite: $\mathrm{PHL} 2 \mathrm{IOYI} / 232 \mathrm{HI} / 240 \mathrm{HI}$
PHL342HI Minds and Machines
39L
Topics include: philosophical foundations of artificial intelligence theory; the computational theory of the mind; functionalism vs. reductionism; the problems of meaning in the philosophy of mind.

## JPP343YI Women in Western Political 52L Thought

An examination of social and political thought concerning the nature of women and their role in society, including the relation between the family and "civil society". The debate between Aristotle and Plato; treatment by early modern individualism; the anti-individualist theory; some major contemporary
perspectives, especially liberal and Marxist feminism. (Given by the Departments of Philosophy and Political Science)
Prerequisite: NEW360YI/PHL265HI/POL200YI

## PHL344HI Metalogic

39L
Soundness and completeness of propositional and
quantificational logic, undecidability of quantificational logic, and other metalogical topics.
Exclusion: MAT309HI/CSC438HI
Prerequisite: PHL245HI and a full course in PHL/CSC/MAT

## PHL345HI Intermediate Logic

A sequel to PHL245HI, developing skills in quantificational logic and treating of definite descriptions. The system developed is used to study a selection of the following topics: philosophical uses of logic, formal systems, set theory, non-classical logics, and metalogic.
Prerequisite: PHL 245 HI and a full course in PHL/CSC/MAT

## PHL346HI Philosophy of Mathematics 39

Platonism versus nominalism, the relation between logic and
mathematics, implications of Gödel's theorem, formalism and intuitionism.
Prerequisite: PHL 245 HI and a full course in PHL/CSC/MAT
PHL347HI Modal Logic 39L
Formal study of the concepts of necessity and possibility;
modal propositional and quantificational logic; possible-worlds
semantics; the metaphysics of modality.
Prerequisite: PHL 245 HI and a full course in PHL/CSC/MAT
PHL349HI Set Theory 39L
Axiomatic set theory developed in a practical way, as a logical tool for philosophers, with some attention to philosophical problems surrounding it.
Prerequisite: PHL245HI and a full course in PHL/CSC/MAT

## HPS350HI Revolution in Science

See "History and Philosophy of Science and Technology"
PHL35IHI Philosophy of Language 39L
The nature of language as a system of human communication, theories of meaning and meaningfulness, the relation of language to the world and to the human mind.
Prerequisite: PHL 245 HI and one of $\mathrm{PHL} 232 \mathrm{HI} / 240 \mathrm{HI}$
PHL355HI Philosophy of Natural Science
39L
The structure and methods of science: explanation,
methodology, realism and instrumentalism.
Recommended preparation: A solid background in science or HPS250HI/PHL246HI
PHL356HI Philosophy of Physics 39L
Introduction to philosophical issues which arise in modern physics, especially in Relativity and Quantum Mechanics. Topics include: the nature of spacetime, conventionality in geometry, determinism, and the relation between observation and existence.
Prerequisite: One full course in MAT/PHY; two full courses is recommended.
PHL357HI Philosophy of Biology 39L
Philosophical issues in the foundations of biology, e.g., the nature of life, evolutionary theory; controversies about natural selection; competing mechanisms, units of selection; the place of teleology in biology; biological puzzles about sex and sexual reproduction; the problem of species; genetics and reductionism; sociobiology; natural and artificial life.

Recommended preparation: HPS250HI/PHL246HI. Students with a background in Biology are exempt from the prerequisite of 1.5 courses in Philosophy

PHL362HI Philosophy of History
Typical questions include: Has history any meaning? Can there be general theories of history? How are the findings of historians related to the theories of metaphysics and of science? Is history deterministic? Must the historian make value judgements? Is history science or an art? Are there historical forces or spirits of an epoch?

## PHL365HI Political Philosophy 39L

A study of some of the central problems of political philosophy, addressed to historical and contemporary political theorists. Prerequisite: PHL265HI/POL200YI

PHL370HI Issues in Philosophy of Law 39L
Major issues in philosophy of law, such as legal positivism and its critics, law and liberalism, feminist critiques of law, punishment and responsibility.
Prerequisite: PHL27IHI
Recommended preparation: PHL265HI
PHL373HI Issues in Environmental Ethics
An intermediate-level examination of key issues in environmental philosophy, such as the ethics of animal welfare, duties to future generations, deep ecology, ecofeminism, sustainable development and international justice.
Prerequisite: $\mathrm{PHL273HI}$

## PHL375HI Ethics

An intermediate-level study of selected issues in moral philosophy, or of influential contemporary or historical works in ethical theory.
Prerequisite: PHL275HI

## PHL378HI War and Morality 39L <br> Moral and political issues concerning warfare: the theory of

 the "just war", pacifism, moral constraints on the conduct of war, war as an instrument of foreign policy, the strategy of deterrence. Special attention to the implications of nuclear weapons.Prerequisite: $\mathrm{PHL} 265 \mathrm{HI} / 275 \mathrm{HI}$
Exclusion: PHL278HI

## PHL380HI Global Bioethics

An intermediate-level study of moral problems that arise in international contexts, including issues of special interest in bioethics: moral universalism and relativism; global distributive justice; poverty relief and international aid; international health disparities; globalization and health; HIV/AIDS; intellectual property and access to essential medicines; clinical trials in developing countries; exploitation and the $10 / 90$ gap. Prerequisite: PHL28IYI
PHL38IHI Ethics and Medical Research 39L
An intermediate-level study of problems in biomedical and behavioural research with human subjects: informed voluntary consent, risk and benefit, experimental therapy, randomized clinical trials, research codes and legal issues, dependent groups (human embryos, children, the aged, hospital patients, the dying, prisoners, the mentally ill.
Prerequisite: PHL28IYI

## PHL382HI Ethics: Death and Dying

39L
An intermediate-level study of moral and legal problems, including the philosophical significance of death, the high-tech prolongation of life, definition and determination of death, suicide, active and passive euthanasia, the withholding of treatment, palliative care and the control of pain, living wills; recent judicial decisions.
Prerequisite: PHL28IYI
PHL383HI Ethics and Mental Health 39L
An intermediate-level study of moral and legal problems, including the concepts of mental health and illness, mental competence, dangerousness and psychiatric confidentiality, mental institutionalization, involuntary treatment and behaviour control, controversial therapies; legal issues: the Mental Health Act, involuntary commitment, the insanity defence.
Prerequisite: PHL28IYI
PHL384HI Ethics, Genetics and Reproduction 39L An intermediate-level study of moral and legal problems, including the ontological and moral status of the human embryo and fetus; human newborn, carrier and prenatal genetic screening for genetic defect, genetic therapy; the reproductive technologies (e.g., artificial insemination, in vitro fertilization); recent legislative proposals and judicial decisions.
Prerequisite: PHL28IYI
PHL385HI Issues in Aesthetics 39L
Selected topics in the philosophy of art. Such issues as the following are discussed: whether different arts require different aesthetic principles; relations between art and language; the adequacy of traditional aesthetics to recent developments in the arts; art as an institution.
Recommended preparation: PHL285HI
PHL388HI Literature and Philosophy 39L
The literary expression of philosophical ideas and the interplay between literature and philosophy. Such philosophical issues as the nature and origin of good and evil in human beings, the nature and extent of human freedom and responsibility, and the diverse forms of linguistic expression. Such authors as Wordsworth, Mill, Dostoyevsky, Tolstoy, Miller, Camus, and Lawrence are studied.

## Exclusion: PHL288H

PHL394HI Markets and Morals
A study of the standards that can be used to judge the performance of economic systems, e.g., efficiency, fairness, maximization, along with the different institutional mechanisms that can be used to organize economic activity, e.g., markets or hierarchies, public or private ownership.
Prerequisite: One of PHL265HI/275HI/POL200YI
Exclusion: PHL296HI
PHL395HI Issues in Business Ethics 39L
A focused examination of moral issues that arise in the conduct of business, in areas such as accounting and finance, corporate governance, human resources, environmental conduct, business lobbying and regulatory compliance.
Prerequisite: PHL295HI
PHL398H0/ Independent Experiential Study Project 399 Y0
An instructor-supervised group project in an off-campus setting. See page 47 for details.

## 400-SERIES COURSES

## Notes

I. The general prerequisite for all 400-level courses is nine half-courses in philosophy. Most courses also have specific prerequisites. Students who do not meet the prerequisite for a particular course but believe that they have adequate preparation must obtain the permission of the instructor in order to gain entry to the course.
2. $\mathrm{PHL} 400 \mathrm{HI}-45 \mathrm{IHI}$ are undergraduate-level courses. PHL $470 \mathrm{HI}-489 \mathrm{HI}$ are cross-listed graduate courses, available to undergraduates as well. Enrolment in these courses requires the permission of the instructor and the Department in addition to the completion of the prerequisites indicated below.
3. Individual Studies courses (PHL490YI, PHL496HI/497HI/ $498 \mathrm{HI} / 499 \mathrm{HI}$ ), which involve directed study and research, are available to advanced students. Arrangements must be made with a faculty supervisor, and approval of the Undergraduate Co-ordinator obtained before registration.
4. No more than one individual studies course can be counted towards any philosophy program. Normally, no more than one-half individual studies course can be counted towards the 400-level course requirement for any Specialist or Combined Specialist Philosophy program.

## PHL400HI Seminar in Ancient/Medieval 39S Philosophy

Advanced discussion of the principal figures and themes in ancient and/or medieval philosophy.
Prerequisite: PHL 200YI
$\begin{array}{ll}\text { PHL40IHI } & \begin{array}{l}\text { Seminar in the History of } \\ \text { Philosophy }\end{array}\end{array}$
Advanced study of some of the principal figures in a particular historical, philosophical tradition.
Prerequisite: PHL 200YI/2IOYI
UNI40IHI Advanced Cognitive Science 26S
See "University College Courses"
PHL402HI Seminar in Early Modern 39S Philosophy
Advanced discussion of the principal figures and themes in the philosophy of the 17th and/or 18th centuries.
Prerequisite: PHL 2IOYI
$\begin{array}{ll}\text { PHL403HI } & \begin{array}{l}\text { Seminar in 19th-Century } \\ \text { Philosophy }\end{array}\end{array}$
Advanced discussion of the principal figures and themes in 19th century philosophy.
Prerequisite: $\mathrm{PHL} 210 \mathrm{Y} / 217 \mathrm{HI} / 315 \mathrm{HI} / 316 \mathrm{HI}$
PHL404HI Seminar in Epistemology 39S
Typical problems include the nature of knowledge and belief; perception; theories of truth and necessity; skepticism.
Prerequisite: PHL 232 HI
PHL405HI Seminar in Philosophy of Mind 39S
Advanced study of a problem in the philosophy of mind.
Prerequisite: $\mathrm{PHL} 240 \mathrm{HI} / 342 \mathrm{HI} / \mathrm{UNI} 250 \mathrm{YI}$
PHL406HI Seminar in Metaphysics 39S
Typical problems include causality and determinism; ontological categories; mind and body; the objectivity of space and time. Prerequisite: PHL 232HI

PHL407HI Seminar in Ethics
Advanced discussion of issues in moral philosophy, including issues of applied ethics.
Prerequisite: PHL 275 HI
PHL408HI Seminar in Philosophy
Topics vary but bridge two or more areas or traditions of philosophy.
PHL409HI New Books Seminar 39S
Advanced study of key philosophical works published within the last five years.
PHL4IOHI Seminar in Continental Philosophy 39 S
Advanced study of recent philosophical discussions within the continental tradition.
Prerequisite: $\mathrm{PHL} 217 \mathrm{HI} / 3 \mathrm{I} 5 \mathrm{HI} / 316 \mathrm{HI} / 3 \mathrm{I} 9 \mathrm{HI} / 320 \mathrm{HI} / 32 \mathrm{IHI} /$ 322HI

PHL4IIHI Seminar in Analytic Philosophy 39S
Advanced study of some topic of current philosophical interest within the analytic tradition.
Prerequisite: PHL 245 HI and one $\mathrm{PHL} 232 \mathrm{HI} / 240 \mathrm{HI}$
PHL4I2HI Seminar in Political Philosophy 39S
Advanced study of some topic in social or political philosophy.
Prerequisite: $\mathrm{PHL} 265 \mathrm{HI} / 27 \mathrm{IHI}$
PHL4I3HI Seminar in Applied Ethics 39S
Advanced study of some topic in an area of applied ethics,
including bioethics, environmental ethics, and so on.
Prerequisite: PHL $27 \mathrm{IHI} / 273 \mathrm{HI} / 275 \mathrm{HI} / 28 \mathrm{IYI}$
PHL4I4HI Seminar in Philosophy of Religion 39S
Advanced study of topics in the philosophy of religion.
Prerequisite: $\mathrm{PHL} 235 \mathrm{HI} / 335 \mathrm{HI}$
PHL4I5HI Seminar in Philosophy of Science 39 S
Advanced study of some area or problem in the philosophy of science.
Prerequisite: One of PHL $355 \mathrm{HI}-357 \mathrm{HI}$ or HPS 250 HI
PHL440HI Clinical Bioethics 39S
Advanced study of topics in bioethics, taught in conjunction with clinical bioethicists associated with the health care organization partners of the University of Toronto Joint Centre for Bioethics.
Prerequisite: PHL28IY, and permission of the instructor and Department. Limited to students enrolled in the Bioethics Specialist program.
PHL45IHI Seminar in Logic/Philosophy 39S of Language
Advanced study of some topic in logic and/or the philosophy of language.
Prerequisite: PHL 245 HI and one of PHL $232 \mathrm{HI} / 240 \mathrm{HI} / 246 \mathrm{HI}$
PHL470HI Advanced Bioethics 395
Philosophical exploration of the foundations and methodology of bioethics. Offered jointly with PHL 2145 H .
Prerequisite: PHL 28 IYI and one of $\mathrm{PHL} 380 \mathrm{HI} / 38 \mathrm{IHI} /$
$382 \mathrm{HI} / 383 \mathrm{HI} / 384 \mathrm{HI}$, and permission of the instructor and Department. Limited to students enrolled in the Bioethics Specialist program.
PHL47IHI Advanced Topics in Greek 39S Philosophy
Prerequisite: PHL200YI and permission of the instructor and Department

| 472HI | ed Topics in Medi phy | S |
| :---: | :---: | :---: |
| Prerequisite: $\mathrm{PHL} 200 \mathrm{YI} / 205 \mathrm{HI} / 206 \mathrm{HI}$ and permission of the instructor and Department |  |  |
| PHL473HI | Philosophy | S |
| Prerequisite: PHL2IOYI and permission of the instructor and Department |  |  |
| PHL475HI | Philosophy | S |
| Prerequisite: PHL 275 HI and permission of the instructor and Department |  |  |
| PHL476HI |  |  |
| Prerequisite: PHL 232 HI and permission of the instructor and Department |  |  |
| HL477HI |  |  |
| Prerequisite: PHL232HI and permission of the instructor and Department |  |  |
| PHL478HI | Advanced Topics in Philosophy of Religion | 39S |
| Prerequisite: $\mathrm{PHL} 235 \mathrm{HI} / 335 \mathrm{HI}$ and permission of the instructor and Department |  |  |
| PHL479HI | Advanced Topics in Philosophy of Mind | 39S |
| Prerequisite: UNI250YI/PHL240HI/340HI/34IHI/342HI and permission of the instructor and Department |  |  |
| PHL480HI | Advanced Topics in Logic | 395 |
| Prerequisite: Two of PHL344HI-349HI and permission of the instructor and Department |  |  |
| PHL48IHI | Advanced Topics in the Philosophy of Language | S |
| Prerequisite: PHL 35 IHI and permission of the instructor and Department |  |  |
| PHL482HI | Advanced Topics in Philosophy of Natural Science | 395 |
| Prerequisite: One of PHL355HI - 357 HI or HPS 250 HI , and permission of the instructor and Department |  |  |
| PHL483HI | Advanced Topics in Social and Political Philosophy | 395 |
| Prerequisite: PHL 265 HI and permission of the instructor and Department |  |  |
| PHL484HI | Advanced Topics in the Philosophy of Law | 395 |
| Prerequisite: PHL27IHI and permission of the instructor and Department |  |  |
| PHL485HI | Advanced Topics in Aesthetics | 39S |
| Prerequisite: PHL285HI/PHL385HI and permission of the instructor and Department |  |  |
| PHL486HI | Advanced Topics in Philosophy of History | 395 |
| Prerequisite: PHL362HI and permission of the instructor and Department |  |  |
| $\begin{aligned} & \text { PHL487HI/ } \\ & \text { 488HI/ } \end{aligned}$ | Advanced Topics in Philosophy | TBA |
| 489H I |  |  |
| Prerequisite: Permission of the instructor and Department |  |  |


| PHL490YI | Individual Studies <br> (formerly PHL390YI) | TBA |
| :---: | :--- | :---: |
| PHL495HI | Individual Studies <br> (formerly PHL395HI) | TBA |
| PHL496HI | Individual Studies <br> (formerly PHL396HI) | TBA |
| PHL 497HI | Individual Studies <br> (formerly PHL397HI) | TBA |
| PHL 498HI | Individual Studies <br> (formerly PHL398HI) <br> PHL 499HI <br> Individual Studies <br> (formerly PHL399HI) | TBA |
|  | TBA |  |

# Physical Education and Health 

## Offered by the Faculty of Physical

## Education \& Health

The Faculty of Physical Education \& Health is offering the course below to all students in the Faculty of Arts and Sciences; it is particularly suitable as a Science Distribution course for students in the Humanities and Social Sciences.

PHEIIOHI Active Healthy Living 26L, I3P
This course increases student awareness of issues related to a healthy lifestyle and to the role of physical activity in promoting health across the lifespan. Important concepts in anatomy, physiology and nutrition are introduced, and the whole body benefits of physical activity are emphasized. Personal nutrition and lifestyle practices are examined and self-improvement plans developed. Full participation in physical activities required. Enrolment limit of 100 students.

## Faculty

University Professors Emeriti
A.E. Litherland, B Sc, Ph D, FRSC, FRS
B.P. Stoicheff, OC, MA, Ph D, D Sc, FRSC, FRS

Professors Emeriti
R.L. Armstrong, MA, Ph D, FRSC
R.E.Azuma, MA, Ph D
H.R. Cho, M Sc, Ph D
R.F. Code, AM, Ph D (UTM)
H.C. Corben, MA, M Sc, Ph D
R.C. Desai, B Sc, Ph D
T.E. Drake, M Sc, Ph D
J.R. Drummond, MA, D Phil
D.J. Dunlop, MA, Ph D, FRSC (UTM)
R.M. Farquhar, MA, Ph D, FRSC (UTM)
G.D. Garland, OC, MA, Ph D, FRSC
G.M. Graham, M Sc, Ph D
A. Griffin, M Sc, Ph D, FRSC (UTSC)
J.V. Iribarne, Dr In Chem
D.G. Ivey, MA, Ph D
A.E. Jacobs, M Sc, Ph D (UTSC)
A.W. Key, MA, D Phil (I)
J.D. King, BA, D Phil (UTSC)
P.P. Kronberg, M Sc, Ph D, D Sc $\dagger$
M.J.G. Lee, MA, Ph D (UTSC)
R. List, Dipl Phys ETH, Dr Sc Nat, FRSC
R.K. Logan, B Sc, Ph D (N)
F.D. Manchester, M Sc, Ph D
A.D. May, MA, Ph D
K.G. McNeill, MA, D Phil, FI Nuc E (T)
J.W. Moffat, Ph D, D Sc
K.H. Norwich, M Sc, MD, Ph D $\dagger$
P.J. O'Donnell, B Sc, Ph D (UTSC)
D.A.L. Paul, BA, Ph D
J.M. Perz, MA Sc, Ph D (UTSC)
J.D. Prentice, M Sc, Ph D
D.J. Rowe, MA, D Phil, FRSC
J.C. Stryland, Ph D
L.E.H. Trainor, MA, Ph D
M.B.Walker, B Eng, D Phil
G.F.West, MA, Ph D, FRSC
S.S.M.Wong, M Sc, Ph D
T.S. Yoon, M Sc, Ph D
D. York, BA, D Phil, FRSC

Professor and Chair of the Department M. Luke, AM, Ph D

## Professor and Associate Chair (Graduate Studies)

T.G. Shepherd, B Sc, Ph D

Associate Professor and Associate Chair
(Undergraduate Studies)
D.C. Bailey, B Sc, Ph D

University Professors
J.R. Bond, OC, MS, PH D, FRSC FRS $\dagger$
S. John, B Sc, Ph D, FRSC
W.R. Peltier, M Sc, Ph D, FRSC

## Professors

J Abbat, MA, Ph D †
R.C. Bailey, B Sc, Ph D
M.J. Bronskill, M Sc, Ph D, FCCPM $\dagger$
D.J. Donaldson, BSc, Ph D $\dagger$
R.N. Edwards, B Sc, Ph D, C Phys, F Inst P
R. Holdom, MA, Ph D
M.L.G. Joy, MA Sc, Ph D $\dagger$
S.R. Julian, B Sc, M Sc, Ph D

Y-B. Kim, B Sc, M Sc, Ph D
L. Kofman, B Sc, Ph D †
G.J. Luste, BA, Ph D
J.F. Martin, B Sc, D Phil $\dagger$
B. Milkereit, Ph D
R.J.D. Miller, R.J.D., B Sc, Ph D
J.X. Mitrovica, M Sc, Ph D
G.W.K. Moore, B Sc, Ph D (UTM)
N. Murray, Ph D $\dagger$
R.S. Orr, B Sc, Ph D
J. Repka, B Sc, Ph D †
P.K. Sinervo, B Sc, Ph D, FRSC
J.E. Sipe, M Sc, Ph D (T)
A.M. Steinberg, MA, Ph D
K. Strong, B Sc, D Phil
W. Trischuk, B Sc, Ph D
H.M. van Driel, M Sc, Ph D, FRSC
R. P. Young, Ph D †

## Associate Professors

K-Y. Chun, B A Sc, MA, Ph D $\dagger$
A-A. Dhirani, BSc, Ph D †
D.F.V. James, Ph D

H-Y. Kee, MS, Ph D
P. Krieger, M Sc, Ph D
P.J. Kushner, B Sc, M Sc, PhD

H-K. Lo, Ph D
R.S. Marjoribanks, MS, Ph D
S. Morris, M Sc, Ph D
B. Netterfield, BS, Ph D
A. Peet, B Sc, Ph D

U-L. Pen, M Sc, Ph D †
E. Poppitz, Ph D
A.C.Thompson, BS, Ph D †
J.T.Wei, MS, Ph D

## Assistant Professors

V. Barzda, M Sc, Ph D (UTM)
C. Gradinaru, Ph D (UTM)
K. Hori, B Sc, Ph D
D.B.A. Jones, AB, SM, Ph D

Y-J. Kim, BS, Ph D
J. Lowman, B A, M Sc, Ph D (UTSC)
D. McMillen, B Sc, M Sc, Ph D $\dagger$
A. Paramekanti, B Tech, Ph D
P. Savard, M Sc, Ph D
S. Stanley, B Sc, Ph D

## Physics

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    R.Teuscher,M Sc, Ph D †
    J.Thywissen, MS, Ph D
    K.Walker, B Sc, Ph D
    M.Wells, B Sc, Ph D (UTSC) \dagger
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## Senior Lecturers

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D.M. Harrison, M Sc, Ph D
R.M. Serbanescu, M Sc, Ph D
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## Lecturers

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V.B. Deyirmenjian, B Sc, Ph D
J. Harlow, B Sc, PhD
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## Part-Time Lecturers

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P. Savaria, M Sc, Ph D
\(\dagger\) Cross-appointed or Research Scientist
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Physics is the study of natural phenomena at the most fundamental level. Physicists investigate the properties of the states of matter and the structure and behaviour of the components of matter. The gravitational, electromagnetic and nuclear interactions are examined and different systems of mechanics including classical, relativistic, quantum and statistical, are developed to describe interactions between systems ranging from sub-atomic to galactic in size.

A program in physics has much to offer you. Besides traditional careers in teaching and research, knowledge of Physics is a powerful tool for a career in the Environmental or Life Sciences. An understanding of Physics is essential for those who are concerned about how society is affected by the impact of modern technology. The conceptual tools one acquires as a physicist can be applied with great success to many occupations.
The Specialist Program offers an intensive preparation for a career in Physics. By choosing courses from the wide variety offered, one can emphasize experimental, theoretical or even applied sides of physics. In fourth year, students intending to undertake graduate studies are encouraged to take advanced optional courses. Optional courses are offered in Sub-Atomic Physics, Quantum Optics and Condensed Matter Physics, or Geophysics and Atmospheric Physics, reflecting the research excellence of the faculty.
The Physics and Physiology Departments offer a biophysics program. This program is intended to combine the analytical problem solving skills of the physicist with a sound background in relevant biology. If you have an interest in biophysics please contact the Associate Chair for Undergraduate Studies.

The Applied Physics program focuses more on subject matter that will help one in an industrial career. As part of this program, students are encouraged to take advantage of the Professional Experience Year program.

A number of joint Physics Specialist programs are also offered in cooperation with the Departments of Astronomy, Chemistry, Computer Science, Environment, Geology, Mathematics, Philosophy, and Physiology.
The Professional Experience Year program ("PEY": see also page I9 and www.peyonline.com) is available to eligible, full-time Arts \& Science Specialist students after their second year of study. Physics students are encouraged to take advantage of this opportunity to apply their scientific and mathematical skills in a 12-16 month professional internship.

Early Teacher Project:The purpose of the Early Teacher Project is to encourage the best physical and mathematical sciences students to pursue careers as mathematics and science teachers in Ontario secondary schools. It has been developed in cooperation with OISE/UT, University of Toronto. To participate students must continue to be registered in a Physics Specialist program (consult with coordinator) and participate in an orientation session in second year. Subsequently, these students will work with experienced teachers in classrooms of primary/ secondary schools in the third and fourth years. There will also be a workshop/seminar component organized jointly by University of Toronto at Scarborough and OISE/UT. Completion of the Early Teacher Project requires completion of PHY 34IHI and one of PHY 342HI or PSCD03S (at Scarborough). These courses may have to be chosen as electives since they are not required in all our programs.

Successful completion of the Early Teacher Project, together with a Physics related Specialist program with a 2.5 GPA standing in the best fifteen FCEs will guarantee admission to OISE/UT for at least 30 students each year. The Early Teacher Project is administered at Scarborough through the coordinator for the ETP, Professor Charles Dyer (416-287-7206). The ETP is now being offered to St. George students. We encourage you to give this career option serious consideration. See the ETP web page www.scar.utoronto.ca/~dyer/ETP/ for further details. Students interested in teaching are also encouraged to apply to the Concurrent Teacher Education Program (see www.ctep. utoronto.ca).
The Departmental website gives detailed information on programs and courses, and describes the operation of the Department and the counselling services available. All students, most particularly those entering first year, are strongly urged to consult the website before term begins.

Associate Chair (Undergraduate Studies):
Professor D. Bailey, Room 328, McLennan Physical Laboratories (4I6-978-6674);
E-mail address: ugchair@physics.utoronto.ca
Enquiries:
Undergraduate Office, Room 301, McLennan Physical
Laboratories (416-978-7057/5219)
Web site: http://www.physics.utoronto.ca

## Physics Programs

Enrolment in the Physics programs requires completion of four courses; no minimum GPA is required. Students with a good grade in PHY IIOYI may apply to the Physics Undergraduate Office for permission to enter a Physics Program requiring PHY 138 YI or 140 Y .

## Applied Physics (Science program)

Consult Professor D. Bailey, Associate Chair (Undergraduate
Studies), Department of Physics.

## Specialist program:

(13.5 full courses or their equivalent, including at least one 400series course)
First Year:
MAT I35YI/I37YI, 223HI; PHY I40YI

Second Year:
MAT $235 \mathrm{YI} / 237 \mathrm{Y}$, 244 HI ; PHY $225 \mathrm{HI}, 25 \mathrm{IHI}, 252 \mathrm{HI}, 255 \mathrm{HI}$, 256 HI
Third Year:
APM 346 HI ; MAT 334 HI ; PHY $35 \mathrm{IHI}, 352 \mathrm{HI}, 355 \mathrm{HI}$
Fourth Year:
I. PHY $459 \mathrm{HI}, 478 \mathrm{HI} / 426 \mathrm{HI}$
2. In addition, students are required in their $3 \mathrm{rd} / 4$ th year to take 2.0 courses in practical physics from:
PHY $305-308 \mathrm{HI} ; 407-408 \mathrm{HI} ; 326 \mathrm{HI} / 426 \mathrm{HI} / 428 \mathrm{HI} / 429 \mathrm{HI}$; $495 \mathrm{HI} / 496 \mathrm{HI}$; and
3. An equivalent of $I .5$ courses selected from one of the following streams:
Condensed Matter Physics and Quantum Optics: PHY $353 \mathrm{HI}, 485 \mathrm{HI}, 487 \mathrm{HI}$
Atmospheric Physics: PHY 3I5HI, 353HI, 498HI
Geophysics: JGP 438 HI, PHY $359 \mathrm{HI}, 493 \mathrm{HI}, 494 \mathrm{HI}$

## Note:

Students intending to pursue a career in Industry are strongly urged to take advantage of the Professional Experience Year Program.

## Biophysics (Science program)

Consult Associate Chair (Undergraduate Studies), Department of Physics or Physiology.

## Specialist program:

( 15.5 full courses or their equivalent, including at least one 400series course)
First Year:
BIO I50YI; CHM (I38HI, I39HI)/I5IYI; MAT I35YI/I37YI; PHY I38YI/I40YI (PHY I40YI recommended)
Second Year:
BCH 2IOHI; BIO 250YI; CHM 247HI; MAT 235YI/237YI, 244 HI ; PHY 25 IHI
First or Second Year:
MAT 223HI
Third Year:
JBO 302 YI ; PHY $225 \mathrm{HI}, 252 \mathrm{HI}, 255 \mathrm{HI}, 256 \mathrm{HI}, 346 \mathrm{HI}, 35 \mathrm{IHI}$
Fourth Year:
PSL $350 \mathrm{HI} / \mathrm{BIO} 349 \mathrm{HI}$; PHY $355 \mathrm{HI}, 407 \mathrm{HI}$; PSL $303 \mathrm{YI}, 432 \mathrm{HI}$
NOTES:We strongly recommend you consider taking the research project PHY $478 \mathrm{HI} / \mathrm{PSL} 499 \mathrm{HI}$.

## Physics (Science program)

Consult Professor D. Bailey, Associate Chair (Undergraduate Studies), Department of Physics.

## Specialist program:

(I3.0 full courses or their equivalent, including at least one fullcourse at the 400 level)
First Year:
MAT I37YI/I57YI, 223HI; PHY I40YI
Note: Students with a good grade in PHY IIOY/I38Y may ask the Physics Undergraduate Office for entry into this or other Physics Programs requiring PHY 140Y.
Second Year:
MAT 237 Y , 244 HI ; PHY $225 \mathrm{HI}, 25 \mathrm{IHI}, 252 \mathrm{HI}, 255 \mathrm{HI}, 256 \mathrm{HI}$
Third Year:
APM 346 HI ; MAT 334 HI ; PHY $35 \mathrm{IHI}, 352 \mathrm{HI}, 353 \mathrm{HI}, 355 \mathrm{HI}$, $357 \mathrm{HI} / 358 \mathrm{HI} / 359 \mathrm{HI}$

Fourth Year:
PHY 457 HI ; two of $459 \mathrm{HI} / 460 \mathrm{HI} / 480 \mathrm{HI}$
NOTE:Third/Fourth Year Laboratories:
All specialists must take a minimum of 1.5 courses in practical physics in third/fourth year. One half-course must be in the Advanced Physics Laboratory.

Advanced Physics Laboratory: PHY 326HI, 426HI, 428HI, 429 HI
Electronics Laboratory: PHY 305HI
Computational Laboratory: PHY $307 \mathrm{HI} / 308 \mathrm{HI} / 309 \mathrm{HI} / 407 \mathrm{HI} /$ $408 \mathrm{HI} / 409 \mathrm{HI}$
Medical Imaging: PHY 445HI

## Major programs:

## A. 'Core' Major

(7.5 full courses or their equivalent, including at least I.5 fullcourse equivalents at the $300+$ level)

First Year:
MAT I37YI, 223 HI ; PHY I40YI
Second Year:
I. MAT 237 YI, PHY 225 HI
2. Three of: PHY $25 \mathrm{IHI}, 252 \mathrm{HI}, 255 \mathrm{HI}, 256 \mathrm{HI}$

Third Year:
I. MAT 244 HI ; PHY $305 \mathrm{HI} / 307 \mathrm{HI} / 308 \mathrm{HI} / 309 \mathrm{HI} / 326 \mathrm{HI}$
2. Two of: PHY $35 \mathrm{IHI}, 352 \mathrm{HI}, 353 \mathrm{HI}, 355 \mathrm{HI}, 357 \mathrm{HI}, 358 \mathrm{HI}$, 359 HI

## B. 'General' Major

(7 full courses or their equivalent, including at least I. 5 fullcourse equivalents at the $300+$ level)
NOTE:This program is intended for students in the Life
Sciences
First Year:
MAT I35YI/I37YI; PHY I $38 \mathrm{YI/I40YI}$
Second Year:
MAT $235 \mathrm{YI} / 237 \mathrm{YI}$; PHY $225 \mathrm{HI}, 238 \mathrm{YI} /(25 \mathrm{IHI}, 255 \mathrm{HI})$
Third Year:
I. MAT 244 HI, PHY $256 \mathrm{HI}, 305 \mathrm{HI} / 307 \mathrm{HI} / 308 \mathrm{HI} / 309 \mathrm{HI} /$ 326HI
2. One full course equivalent from: JPA $305 \mathrm{HI}, \mathrm{JPA} 3 \mathrm{IOHI}$, JGP 438 HI, PHY $3 \mathrm{I} 5 \mathrm{HI}, 346 \mathrm{HI}, 445 \mathrm{HI}$

## Minor programs:

A. 'Core' Minor
(4 full courses or their equivalent)
First Year:
PHY I40YI
Second Year:
I. PHY 225 HI
2. Three of: PHY $25 \mathrm{IHI}, 252 \mathrm{HI}, 255 \mathrm{HI}, 256 \mathrm{HI}$

Third Year:
I. $\mathrm{PHY} 305 \mathrm{HI} / 307 \mathrm{HI} / 308 \mathrm{HI} / 309 \mathrm{HI} / 326 \mathrm{HI}$
2. One of PHY $35 \mathrm{IHI}, 352 \mathrm{HI}, 355 \mathrm{HI}$

## B. ‘Life, Environmental, and General’ Minor

(4 full courses or their equivalent)
First Year:
MAT I35YI/I37YI; PHY I $38 \mathrm{YI/I40YI}$
Second Year:

## Physics

ENV $235 \mathrm{YI} /$ PHY 238 YI or any other I full course equivalent from PHY courses at the 200+ level
Third Year:
One full course equivalent from: BIO $472 \mathrm{HI}, \mathrm{JPA} 305 \mathrm{HI}$, JPA
$310 \mathrm{HI} ; J G P 438 \mathrm{HI} ; \mathrm{PHY} 3 \mathrm{I} 5 \mathrm{HI}, 346 \mathrm{HI}, 445 \mathrm{HI}$ or any other PHY300+ course; PSL454HI; JBO302Y may count as a half-course credit to this requirement.

Earth Systems: Physics and Environment : see Centre for Environment

## Physics and Astronomy: see Astronomy

Physics and Chemistry: see Chemical Physics in the Chemistry section

Physics and Computer Science: see Computer Science

## Physics and Geology: see Geology

## Physics and Mathematics: see Mathematics

Physics and Philosophy (Science program)
Consult Associate Chair (Undergraduate Studies), Department of Physics or Philosophy.

## Specialist program:

( 16.0 full courses or their equivalent, including at least 2 fullcourse equivalents at the 400 level)
First Year:
PHYI40YI; MATI37YI/I57YI; MAT223HI; PHL I00YI
Second Year:
MAT237YI; MAT244HI; PHY25IHI; PHY255HI; PHY256HI; HPS 250HI
Third Year:
MAT334HI; PHY252HI; PHY35IHI; PHY352HI; PHY355HI
Fourth Year:
PHY457HI; PHY480HI/483HI; PHY49IHI
Any Year:
PHL $245 \mathrm{HI} ; 344 \mathrm{HI} / 345 \mathrm{HI} / 347 \mathrm{HI} / 349 \mathrm{HI} ; 355 \mathrm{HI} ; 356 \mathrm{HI}$; $415 \mathrm{HI} / 482 \mathrm{HI}$
2.5 additional PHL courses, including at least 0.5 at the 300+ level
Planetary Science: see Astronomy and
Astrophysics

## Physics Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), all PHY courses are classified as SCIENCE courses.

## Note

Books listed in course descriptions will not necessarily be the texts for the course, but do indicate the level of presentation. More detailed and current information on courses is available through the Physics Department website. Pre- and corequisites are recommendations which may be waived in special circumstances - students should consult the Department prior to the beginning of term.

SCII99HI/YI First Year Seminar $52 S$
Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course; see page 47.
PHYIOOHI The Magic of Physics 26L, I3T
In 1915 Einstein presented a quartet of papers that revolutionized our understanding of gravity. He commented: "Hardly anyone who has truly understood this theory will be able to resist being captivated by its magic." The General Theory of Relativity is not the only theory of physics that is magical, and Einstein was not physics' only magician. We uncover the wonders of the classical and the quantum world courtesy of Galileo, Newton, Maxwell, Einstein, Heisenberg and others. Topics include planetary motion, chaos, the nature of light, time travel, black holes, matter waves, Schrödinger's cat, and quarks. No mathematics is required, and any necessary elementary classical physics is reviewed.
Exclusion: PHYIIOYI/I38Y/I40Y taken previously or concurrently
PHYIOOHI is primarily intended as a Science Distribution Requirement course for students in the Humanities and Social Sciences.

## PHYIOIHI Emergence in Nature 26L, I3T

The universe is not a rigid clockwork, but neither is it formless and random. Instead, it is filled with highly organized, evolved structures that have somehow emerged from simple rules of physics. Examples range from the structure of galaxies to the pattern of ripples on windblown sand, to biological and even social processes. These phenomena exist in spite of the universal tendency towards disorder. How is this possible? Self-organization challenges the usual reductionistic scientific method, and begs the question of whether we can ever really understand or predict truly complex systems.
Exclusion: PHYIIOYI/I38Y/I40Y taken previously or concurrently
PHYIOIHI is primarily intended as a Science Distribution Requirement course for students in the Humanities and Social Sciences.

## Note

## First Year Laboratory

Taken by all students enrolled in PHYIIOYI and I38YI.An introductory course in experimentation, starting with selected experiments, which each student is obliged to complete, but from there on, offering choices. Emphasis is on the general principles of experimentation: planning, use of instruments, error estimation, data analysis and comparison with theory, the keeping of complete records, and genuine exploratory work. Laboratories are given in alternate weeks; students taking Physics, Chemistry or Biology laboratories may schedule these on the same afternoon of alternate weeks.

## PHYIIOYI Basic Physics

78L, 39P, 26T
Designed for students who do not intend to take more than one course in Physics, but who wish to acquire a working knowledge of basic physics needed in other areas of science. The course is offered at a level similar to Grade 12 Physics. Students in other disciplines who wish some exposure to the
methods and excitement of modern physics should consider either PHYI00HI, PHY2OIHI, or PHY205HI. (See "NOTE"
after PHYI00HI giving description of laboratory.)
Reference: Cutnell, Physics 7th edition (Wiley)
Exclusion: Senior (e.g. SPH4U) high school Physics or equivalent taken within the previous 5 years, PHYI38YI/I40YI. Note: Students will be required to withdraw from PHYIIOY at any time if they are found to have senior high school Physics (see "Exclusions" on Page 35).
Prerequisite: Grade 12 " 4 U " Mathematics (Some calculus recommended or MAT I35YI/I37YI/I57YI
Co-requisite: Students intending to take any higher level Physics course are expected to take at least MATI35YI.
PHYIIOYI can be taken as a Science course for Distribution Requirement purposes
PHYI38YI Physics for the Life 52L, 39P, 26T

## Sciences I

This course is recommended strongly for students following a life science program. This course introduces topics in physics relevant for life sciences. Mechanics; torque and statics; work, power and energy; viscous forces; vibrations and waves; sound; optics; electric and magnetic forces and fields; dielectric and conductors; nuclear medicine; dose from radiation; nuclear physics. (See "NOTE" after PHYIOOHI giving description of laboratory.)
Reference: Knight, Physics for Scientists and Engineers, Ist edition (Pearson) + Notes
Exclusion:PHYIIOYI/I40YI
Prerequisite: MCB4U Functions \& Calculus and SPH4U Physics Co-requisite: MATI35YI/I37YI/I57YI
PHYI40YI Foundations of Physics 78L, 39P, 26T
The first physics course in many of the Specialist and Major Programs in Physical Sciences. It provides an introduction to the concepts, approaches and tools the physicist uses to describe the physical world while laying the foundation for classical and modern mechanics. Topics include: the motion of single particles and rigid, extended bodies (Newtonian Mechanics); the concepts of force, work, and energy; simple harmonic motion; planetary motion, gravitation; black holes; special relativity; an introduction to elementary particle physics; electrostatics; the breakdown of Newtonian mechanics in the microscopic world; atomic and nuclear physics; an introduction to Quantum Mechanics, wave-particle duality and the uncertainty principle. Students take the Physics Specialist Laboratory in alternating weeks. The first component consists of dynamics and mechanics experiments in our computer based laboratory. The second component consists of a free choice experiments chosen from a list of basic experimental techniques, standard and classic experiments.
Reference: Knight, Physics for Scientists and Engineers Ist edition (Pearson)
Exclusion: PHYIIOYI/I38YI
Prerequisite: MCB4U Functions \& Calculus and SPH4U Physics Co-requisite: MATI37YI/I57YI, (MAT223HI/240HI
recommended)

## PHYI89HI Physics at the Cutting Edge 39L

A limited enrollment seminar course for First Year Science students interested in current research in Physics. Students will meet active researchers studying the universe from the centre of the earth to the edge of the cosmos. Topics may range from string theory to experimental biological physics, from climate change to quantum computing, from superconductivity to
earthquakes. The course may involve both individual and group work, essays and oral presentations.
Co-requisite: PHY I38YI/I40YI

## Note

Exceptional first year students, for example those who have scored very high on the Canadian Association of Physics High School Exam, may be allowed direct enrollment in Physics Second Year Courses. Contact the Physics Undergraduate Office.

## 200-SERIES COURSES

## Note

All 200-series PHY courses except PHY2OIHI and PHY205HI require MATI $35 \mathrm{Y} I / I 37 Y \mid / I 57 Y \mathrm{I}$.

PHY20IHI Concepts of Physics
26L, 13T
A conceptual overview of some the most interesting advances in physics and the intellectual background in which they occurred. The interrelationship of the actual practice of physics and its cultural and intellectual context is emphasized.
PHY 20 IHI is primarily intended as a Science Distribution
Requirement course for students in the Humanities and Social Sciences.
PHY205HI The Physics of Everyday Life 26L, 13T
An introduction to the physics of everyday life. This conceptual course looks at everyday objects to learn about the basis for our modern technological world. Topics may include anything from automobiles to weather.
Exclusion: PHYIIOYI/I38Y/I40Y taken previously or concurrently
PHY205HI is primarily intended as a Science Distribution Requirement course for students in the Humanities and Social Sciences.
JOP2IOHI Holography for 3D 26L, 58P Visualization
An introduction to the theory and practice of holography. Human perception \& 3D visualization; fundamentals of 3D modeling; ray and wave optics; interference, diffraction, coherence; transmission and reflection holograms; color perception; stereograms. Applications of holography in art, medicine, and technology. Computer simulation, design, and construction of holograms.
Prerequisite: PHYIIOYI/I38YI/I40YI/I80HI/MIEIOOHI

## PHY225HI Fundamental Physics 26L, 78P Laboratory

The 2nd year Physics Laboratory. Topics including experimental techniques, instrumentation, and data analysis are introduced through experiments, complementary lectures, and library research to some of the great experiments of physics.
Prerequisite: $\mathrm{PHYI} 38 \mathrm{Y} / / / 40 \mathrm{Y} \mid$
Co-requisite: PHY $238 \mathrm{Y} / 25 \mathrm{IHI} / 252 \mathrm{HI} / 255 \mathrm{HI} / 256 \mathrm{HI}$
ENV235YI Physics and Chemistry of 52L
Planet Earth
See "Centre for Environment"
The formation and evolution of Earth as a planet in the Solar System: origin of the elements, composition of planets, mantle-core differentiation, tectonics, geologic change and time scales. The biosphere: i.e., the Earth's atmosphere, oceans and

## Physics

crust: operation as a physicochemical system, atmospheric composition and roles of major and minor constituents, ocean/atmosphere energy budgets, circulations and couplings; climate, glaciation. The effects of human intervention and natural processes: e.g., groundwater quality, atmospheric change, volcanic activity. Given by the Departments of Physics and Chemistry.
Prerequisite: CHM (I38HI, I39HI)/I5IYI; MATI35YI/I37YI/ I57YI/JMBI70YI; PHYI38YI/I40YI

PHY238YI Physics for the Life Sciences II 78L, 26T
Electromagnetism; biological effects of radiation; physical optics; macroscopic phenomena; heat engines and metabolism. Examples are taken, where applicable, from the life sciences. Exclusion: PHY25IHI
Prerequisite: (PHYIIOYI, MATI35YI)/PHYI38YI/I40YI
Recommended preparation: BIOI50YI/a CHMIO0-series course
Co-requisite: None, but students taking any higher level Physics course are expected to have at least MAT235YI
PHY25IHI Electricity and Magnetism 26L, I3T
Point charges; Coulomb's Law; electrostatic field and potential; Gauss' Law; conductors; electrostatic energy; magnetostatics; Ampere's Law; magnetostatic energy; Lorentz Force; Faraday's Law; dielectric and magnetic materials; Maxwell's equations. Exclusion: PHY238YI
Prerequisite: PHYI38YI/I40YI
Co-requisite: MAT235YI/237YI/257YI

## PHY252HI Thermal Physics

26L, 13T
The quantum statistical basis of macroscopic systems; definition of entropy in terms of the number of accessible states of a many particle system leading to simple expressions for absolute temperature, the canonical distribution, and the laws of thermodynamics. Specific effects of quantum statistics at high densities and low temperatures.
Reference: Kittel and Kroemer, Thermal Physics
Prerequisite: PHYI38YI/I40YI
Co-requisite: MAT235YI/237YI/257YI

## PHY255HI Oscillations and Waves 26L, I3T

Complex notation; free, damped and forced harmonic oscillations; resonance; AC circuits; coupled oscillators; normal modes; travelling waves; simple harmonic wave; wave equation; wave impedance; transverse and longitudinal waves; flow of energy in waves; reflection and transmission at interfaces; group and phase velocity; Fourier series and Fourier transforms.
Prerequisite: PHYI38YI/I40YI
Co-requisite: MAT235YI/237YI/257YI (MAT244HI recommended)
PHY256HI Introduction to Quantum 39L, I3T Physics
Failures of classical physics; the Quantum revolution; Stern-
Gerlach effect; harmonic oscillator; uncertainty principle;
interference packets; scattering and tunnelling in one-dimension
Prerequisite: PHYI38YI/I40YI
Co-requisite: MAT235YI/237YI/257YI (MAT223HI/240HI recommended)

PHY299YI Research Opportunity Program
Credit course for supervised participation in faculty research project. See page 47 for details.

## 300-SERIES COURSES

## Note

Students taking 300-series courses are invited to attend the Thursday afternoon Department colloquia.

## JBO302YI Human Physiology and <br> 78L, 14T Biophysics

Principles of Human Physiology with tutorials on the biophysical concepts applied to physiological processes. Restricted to students enrolled in the Biophysics and Physiology (Theoretical) programs.
Exclusion: PSL20IYI, 302YI
Prerequisite: BIOI50YI; CHMI38HI; MATI35YI/I37YI;
PHYI38YI/I40YI
JPA305HI Introduction to Archaeometry 26L, I3P Introduction to methods for remote sensing of buried archaeological remains, (magnetics, resistivity, electromagnetics), dating (Carbon 14,TL, ESR, etc.) and analysis (X-Ray, INAA) of ancient materials. Application of methods and interpretation of results in archaeological contexts. Issues of art and authenticity are also addressed. Course includes a laboratory component. (Not offered every year) (Given by the Departments of Physics and Anthropology)
Reference:Aitken, Physics and Archaeology;Tite, Methods of
Physical Examination in Archaeology; Fleming, Dating in
Archaeology
JPA3IOHI Physics and Archaeometry 26L, I3P Introduction to the principles behind archaeometric methods for remote sensing, dating, and analysis of archaeological materials, and interpretation of results. Course includes both field and in-house laboratory components. Offered in conjunction with JPA305HI. (Not offered every year) (Given by the Departments of Physics and Anthropology)
Prerequisite: Any Ist-year Physics course or permission of instructor
Co-requisite: JPA 305 HI
PHY305HI Electronics Lab I 26L, 39P
The laboratory functions as an integrated lecture course/ laboratory program. Passive linear circuits: theorems, networks, and equivalents; meters, transient and steady responses, power, transformers, transmission lines. Digital devices: gates logic, Boolean algebra, minimization, flip-flops, counters, delays. Opamps: dependent sources, amplifiers, integrators, feedback, slew rate, filters. Diodes: peak detector, rectification, regulators Noise: sources, grounding, shielding, ground loops. Transistors: characteristics, analysis, amplifier design.
Prerequisite: PHY225HI, 25IHI, 255HI

## Note

Computational Laboratory: Students may select one or more modules from PHY307HI/308HI/309HI below. The laboratory functions as an integrated lecture course/laboratory program. Students taking a second module can receive a 4th year credit (see listings for PHY407H/408H/409H).

## PHY307HI Introduction to I3L, 39P Computational Physics

Problem solving with computers, using both algebraic and numerical methods. After a brief introduction to the basic techniques, various physics problems are treated with increasingly more sophisticated techniques. Examples include the physical pendulum, heat equation, quantum mechanics, Monte Carlo simulation, differential equation, and graphical presentation of results.
Exclusion: PHY407HI
Co-requisite: Any third-year lecture course in Physics

## PHY308HI Times Series Analysis I3L, 26P

The analysis of digital sequences; filters; the Fourier Transform; windows; truncation effects; aliasing; auto and cross-correlation; stochastic processes, power spectra; least squares filtering; application to real data series and experimental design.

## Exclusion: PHY408HI

Co-requisite: Any third-year lecture course in Physics

## PHY309HI Quantum Methods Using 26L, 26P

 Computer AlgebraClassic quantum mechanics problems are explored using Maple computer algebra and graphics. These include bound state and scattering problems in ID, angular momentum and spin, commutator algebra, scattering in 3D and time dependent processes. General techniques for computer-aided problem solving are developed.
Exclusion: PHY409HI
Co-requisite: Any third-year lecture course in Physics
PHY3I5HI Radiation in Planetary

## Atmospheres

The role of radiation in the generation, maintenance and evolution of planetary atmospheres and climate: Radiation laws, absorption and emission. Simple radiative exchange processes and atmospheric models. Energy balance. Radiation and climatic change. Comparative radiation studies in planetary atmospheres. Pollution and man-made effects.
Prerequisite: PHY238YI/25IHI; MAT235YI/237YI
PHY326HI Advanced Physics Laboratory I50P
Experiments in this course are designed to form a bridge to current experimental research. A wide range of exciting experiments relevant to modern research in physics is available. The laboratory is open from 9 a.m. - 5 p.m., Monday to Friday. Prerequisite: PHY225HI, $25 \mathrm{IHI}, 256 \mathrm{HI}$

## PHY34IHI Physical Science in Contemporary 26L Society

Complex nature of the scientific method; inter-connection between theory, concepts and experimental data; characteristics of premature, pathological and pseudo-science; public perception and misperception of the scientific method; the supposed end of the Golden Era of Science; the insufficiency of reductionism; trends in modern science. (Offered in alternate years with PHY 342 HI )
Prerequisite: must be registered in Early Teacher Project or Physics program

## PHY342HI Current Questions in Mathematics and Science

Topics of current prominence in the physical sciences and mathematics are discussed. Topics change each year as the sciences evolve. Appropriate topics might include: high-
temperature superconductivity, cosmology, chaos and non-linear dynamics. (Offered in alternate years with PHY 34IHI)
Prerequisite: must be registered in Early Teacher Project or Physics program

## PHY346HI Intermediate Biophysics 26L, I3T

Molecular structure of biological systems: bonds, orbitals, molecular excitation and energy transfer, theory of absolute reaction rate, formation of biomacromolecules. Energetics and dynamics of biological systems: state functions, entropy and stability, thermodynamic basis of biochemical reactions, analysis of fluxes, electric fields in cells and organisms. The kinetics of biological systems: problems and approaches of system and compartmental analysis, models of biochemical reactions and some complex biological processes.
Prerequisite: MAT235YI/237YI/257YI; PHY238YI/25IHI

## PHY35IHI Classical Mechanics 26L, I3T

Symmetry and conservation laws, stability and instability,
generalized co-ordinates, Hamilton's principle, Hamilton's
equations, phase space, Liouville's theorem, canonical
transformations, Poisson brackets, Noether's theorem.
Prerequisite: MAT $244 \mathrm{HI} / 267 \mathrm{HI}$; PHY255HI
PHY352HI Electromagnetic Theory 26L, I3T
Review of vector \& tensor calculus, transformation properties of vectors \& tensors, electrostatics, basic formulae of magnetostatics, electrodynamics (Maxwell's Equations), gauge transformations of scalar \& vector potentials, retarded potentials, Liénard-Wiechert potentials, radiation, special theory of relativity, relativistic mechanics and relativistic electrodynamics.
Prerequisite: MAT $223 \mathrm{HI} / 240 \mathrm{HI} / 244 \mathrm{HI}$; PHY25IHI, 255 HI

## PHY353HI Electromagnetic Waves 26L, I3T

Review of Maxwell's equations; electric fields in matter; magnetic fields in matter; electromotive force; electromagnetic induction; electromagnetic waves in vacuum; waves in dielectric and conductive materials, skin effect; waves in dispersive media: polarization phenomena; Fresnel equations; reflection and refraction from an interface; Brewster angle, total internal reflection; interference, coherence effects; interferometers; Fraunhofer and Fresnel diffraction; waveguides, optical fibres, radiation.
Prerequisite: PHY352HI
PHY355HI Quantum Mechanics I 26L, I3T
The general structure of wave mechanics; eigenfunctions and eigenvalues; operators; orbital angular momentum; spherical harmonics; central potential; separation of variables; hydrogen atom; Dirac notation; operator methods; harmonic oscillator and spin.
Exclusion: CHM326HI
Prerequisite: MAT223HI/240HI/244HI; PHY25IHI, 256HI/ CHM225Y
PHY357HI Nuclear and Particle Physics 26L, I3T
The subatomic particles; nuclei, baryons and mesons, quarks, leptons and bosons; the structure of nuclei and hadronic matter; symmetries and conservation laws; fundamental forces and interactions, electromagnetic, weak, and strong; a selection of other topics, CP violation, nuclear models, standard model, proton decay, supergravity, nuclear and particle astrophysics. This course is not a prerequisite for any PHY 400-level course. Prerequisite: PHY 355 HI

## Physics

PHY358HI Atoms, Molecules and Solids 26L, I3T
Quantum theory of atoms, molecules, and solids; variational principle and perturbation theory; hydrogen and helium atoms; exchange and correlation energies; multielectron atoms; simple molecules; bonding and antibonding orbitals; rotation and vibration of molecules; crystal binding; electron in a periodic potential; reciprocal lattice; Bloch's theorem; nearly-free electron model; Kronig-Penney model; energy bands; metals, semiconductors, and insulators; Fermi surfaces. This course is not a prerequisite for any PHY 400-level course.
Prerequisite: PHY355HI

## PHY359HI Physics of the Earth 26L, I3T

Designed for students interested in the physics of the Earth and the planets. Study of the Earth as a unified dynamic system; determination of major internal divisions in the planet; development and evolution of the Earth's large scale surface features through plate tectonics; the age and thermal history of the planet; Earth's gravitational field and the concept of isostasy; mantle rheology and convection; Earth tides; geodetic measurement techniques, in particular modern space-based techniques.
Prerequisite: PHY I40YI/255HI, MAT 235YI/237YI, MAT244
(Or permission of instructor)
PHY37IYI/ Supervised Reading in Physics TBA

## 372HI

An individual study program chosen by the student with the advice of, and under the direction of, a staff member. A student may take advantage of this course either to specialize further in a field of interest or to explore interdisciplinary fields not available in the regular syllabus.
Prerequisite: Permission of Department

## PHY398H0/ Independent Experiential Study Project 399Y0

An instructor-supervised group project in an off-campus setting. See page 47 for details.

## 400-SERIES COURSES

## Note

A program including one or more of PHY 470-472, PHY 478479 , or PHY 480-499 must be endorsed by the Department. Students taking 400-series courses are invited to attend Thursday afternoon Department colloquia.

## JPA400YI Advanced Physics and I56P Archaeology

An introduction to research in archaeometry and archaeological prospecting. Possible projects: magnetic and resistivity surveying of archaeological sites; thermoluminescence measurements; neutron activation analysis and x-ray fluorescence analysis of artifacts; radiocarbon dating by atom counting; lead isotope analysis. (Offered only occasionally by the Departments of Physics and Anthropology)
Prerequisite: JPA3IOHI

PHY407HI $\quad$| Introduction to |
| :--- |
| Computational Physics |

For course description see PHY307HI.
Exclusion: PHY 307 HI
Prerequisite: $\mathrm{PHY} 308 \mathrm{HI} / 309 \mathrm{HI}$ or enrollment in Biophysics
program

PHY408HI Times Series Analysis
13L, 26P
For course description see PHY308HI.
Exclusion: PHY308HI
Prerequisite: $\mathrm{PHY} 307 \mathrm{HI} / 309 \mathrm{HI}$
PHY409HI Quantum Methods Using 26L, 26P
For course description see PHY309HI.
Exclusion: PHY309HI
Prerequisite: PHY $307 \mathrm{HI} / 308 \mathrm{HI}$
PHY426HI Advanced Physics Laboratory II I50P
Prerequisite: PHY 326HI
PHY428HI Advanced Physics Laboratory III I50P Prerequisite: PHY $426 \mathrm{HI} / 325 \mathrm{YI}$

## PHY429HI Advanced Physics Laboratory IV I50P

Experiments in these advanced laboratory courses are designed to form a bridge to current experimental research. A wide range of experiments relevant to modern research in physics is available. Thse Icourses are a continuation of PHY326, but students have more freedom to progressively focus on specific areas of physics or to do extended experiments or projects. The lab is open from 9:00am. - 5:00pm, Monday to Friday. Prerequisite: PHY 428 HI
JGP438HI Shallow Crust Geophysics 26L, 52P
An introduction to the geophysical exploration of the subsurface. Topics covered include gravity, seismic, magnetic, electrical and electromagnetic surveying and their application in prospecting, hydrogeology, and environmental assessments. This course is intended primarily for geological engineering and geology students.
Exclusion: PHY496HI
Prerequisite: GLG306HI; MAT223HI/235YI; PHYI38YI/I40YI
or permission of instructor
PHY445HI Medical Imaging 26L, 20P, I3T
The mathematical, physical and engineering basis for medical imaging is introduced by combining the mathematical description of linear systems with the physics of imaging systems utilizing $x$-rays, ultrasound, and magnetic resonance techniques. The combination of mathematics and physics that has lead to the development of modern medical imaging systems is emphasized. Data for problem sets and labs will be processed using MATLAB software. Students not in a physics specialist program should consult the lecturer about the recommended background
See Course Website at http://www.ecf.utoronto.ca/apsc/
courses/bme595f for textbook and references
Prerequisite: MAT244HI/APM346HI; MAT235YI/237YI;
PHY238YI/25IHI
Recommended preparation: $\mathrm{PHY} 307 \mathrm{HI} / 308 \mathrm{HI}$
PHY457HI Quantum Mechanics II 26L, I3T
Quantum dynamics in Heisenberg and Schrödinger Pictures; WKB approximation;Variational Method;Time-Independent Perturbation Theory; Spin; Addition of Angular Momentum;
Time-Dependent Perturbation Theory; Scattering.
Prerequisite: PHY355HI
PHY459HI Macroscopic Physics 26L, I3T
Thermal equilibrium and temperature; the three laws of thermodynamics; entropy and free energy, phases and phase transitions; Fluid dynamics; the Euler and Navier-Stokes equations; vorticity, waves; stability and instability; turbulence. Prerequisite: $\mathrm{PHY} 252 \mathrm{HI}, 35 \mathrm{IHI}$

## PHY460HI Nonlinear Physics

 26LNonlinear oscillator; nonlinear differential equations and fixed point analysis; stability and bifurcation; Fourier spectrum;
Poincare sections; attractors and aperiodic attractors; KAM theorem; logistic maps and chaos; characterization of chaotic attractors; Benard-Rayleigh convection; Lorenz system.
Prerequisite: PHY 35 IHI

## PHY47IYI/ Supervised Reading in Physics TBA

## 472HI

These self-study courses are similar to PHY37IYI/372HI, at a higher level.
Prerequisite: Permission of Department

## PHY478HII Undergraduate Research Project TBA

 479YIAn introduction to research in Physics. For further information contact the Associate Chair, Undergraduate Studies.
Prerequisite: Permission of Department

## FOURTH-YEAR OPTIONAL ADVANCED PHYSICS COURSES

## Note

The Department of Physics offers senior undergraduate students a set of specialized optional courses. NONE of these courses are required to complete a Specialist Program in Physics but taking several of these courses is recommended strongly to students wishing to pursue graduate studies.

## Note

Most Advanced Courses are offered every year, but some are not. Please check the Physics Department website for current offerings. It is the student's responsibility to ensure they have adequate preparation for any of the Advanced courses. Please contact the course instructor or the Associate Chair, Undergraduate Studies for more information.

## PHY480HI Basic Statistical Mechanics

Classical and quantum statistical mechanics of noninteracting systems; the statistical basis of thermodynamics; ensembles, partition function; thermodynamic equilibrium; stability and fluctuations; formulation of quantum statistics; theory of simple gases; ideal Bose and Fermi systems.

## PHY483HI Relativity Theory I

26L
Basis to Einstein's theory: differential geometry, tensor analysis, gravitational physics leading to General Relativity. Theory starting from solutions of Schwarzschild, Kerr, etc.

## PHY484HI Relativity Theory II

Applications of General Relativity to Astrophysics and Cosmology. Introduction to black holes, large-scale structure of the universe.
PHY485HI Modern Optics
Basic optics, diffraction theory, Gaussian beams, laser resonators, semiclassical laser theory and ultrafast pulse generation. Selected reviews from the range of modern areas of research, e.g. laser cooling, photonic bandgap stru ctures, extreme optics, quantum information, and other topics. Prerequisite: $\mathrm{PHY} 353 \mathrm{HI}, 355 \mathrm{HI}$

PHY487HI Condensed Matter Physics 26L
Introduction to the concepts used in the modern treatment of solids. The student is assumed to be familiar with elementary quantum mechanics. Topics include: crystal structure, the reciprocal lattice, crystal binding, the free electron model, electrons in periodic potential, lattice vibrations, electrons and holes, semiconductors, metals.

## PHY489HI Introduction to High 26L

Energy Physics
This course surveys the experimental basis and theoretical framework of the "Standard Model" of Particle Physics and its possible extensions. Topics include the standard electroweak model, scattering and parton distributions, strong interactions and quantum chromodynamics.
PHY49IHI 26L, I3T

Review of conventional, textbook quantum mechanics. Formal measurement theory and wave function collapse; quantum states and nonseparability, violation of local causality, Bell theorems, "quantum tricks", decoherence and the emergence of classical behaviour. Hidden variables, deBroglie-Bohm theory and generalizations, many-worlds interpretation and other theories of "beables". Consistent histories approach of Omnes and GellMann and Hartle; nature of "True" and "Reliable" statements. Prerequisite: PHY457HI
PHY493HI Geophysical Imaging I 26L
This course covers wavefield and ray approximation methods for imaging the interior of the Earth (including hydrocarbon reservoirs and mineral deposits) using seismology.
PHY494HI Geophysical Imaging II 26L How to investigate Earth structure at depths ranging from metres to tens of kilometres using gravity, magnetic, electrical, electromagnetic and nuclear geophysical methods. Current methodologies and the theoretical basis for them are presented.
PHY495HI Experimental Global Geophysics 26L
This course deals with the numerical analysis of data associated with space geodesy, earthquake seismology, geomagnetism and palaeomagnetism, isotope geochronology, as well as numerical simulations of a wide variety of geodynamic processes (e.g. mantle convection, post-glacial rebound, Earth tides). Co-requisite: PHY 359 HI
PHY496HI Experimental Applied Geophysics 39P
A laboratory course (with introductory lectures) dealing with physical methods for exploring Earth structure; i.e., seismic, gravity, magnetic, electrical, electromagnetic, and nuclear methods. It is designed to give "hands on" experience with the techniques of geophysical data analysis as well as data acquisition.
Exclusion: JGP438HI
Co-requisite: $\mathrm{PHY} 493 \mathrm{HI} / 494 \mathrm{HI}$
PHY498HI Advanced Atmospheric Physics 26L A preparatory course for research in experimental and theoretical atmospheric physics. Content will vary from year to year. Themes may include techniques for remote sensing of the Earth's atmosphere and surface; theoretical atmosphere-ocean dynamics; the physics of clouds, precipitation, and convection in the Earth's atmosphere.

## Planetary Science

## Sponsored by the Departments of Astronomy \& Astrophysics, Chemistry, Geology and Physics

The Planetary Science Program is an interdisciplinary program sponsored by the Departments of Astronomy \& Astrophysics, Chemistry, Geology and Physics. It focuses mainly on the study of the planets in our own solar system, but extrasolar planets are also discussed. The aim is to provide information about different techniques for studying the nature and origin of planets and planetary systems.

Students enrolled in this program must consult the undergraduate secretary of one of the participating departments for advice on the selection of courses. Students interested in pursuing graduate studies in one of these disciplines should include core courses from the appropriate department(s) in their course selection.

## Planetary Science Program

## Planetary Science (Science program)

## Specialist Program:

(14 full courses or equivalent, including at least one $400+$ series course)
Enrolment in the Planetary Science Specialist program is open to students who have completed four full course equivalents.

## First Year:

(CHM I38HI, I39HI)/I5IYI; MAT I35YI/I37YI; PHY I $38 \mathrm{YI} / 140 \mathrm{YI}$ (MAT I37YI and PHY I40YI preferred)

## First or Second Year:

MAT $223 \mathrm{HI} / 240 \mathrm{HI}$
Second or Third Year:
AST 22 IHI ; CHM $225 \mathrm{YI} /(\mathrm{PHY} 252 \mathrm{HI}, 256 \mathrm{HI})$; CHM 238 YI ; GLG $206 \mathrm{HI}, 216 \mathrm{HI} / 207 \mathrm{HI} ;$ MAT $235 \mathrm{YI} / 237 \mathrm{YI}$ (MAT 237 Y I preferred); MAT 244 HI ; PHY $25 \mathrm{IHI}, 255 \mathrm{HI}$
Third and/or Fourth Years:
I. PHY $315 \mathrm{HI}, 359 \mathrm{HI}$
2. At least three of AST 325 HI ; CHM $327 \mathrm{HI}, 338 \mathrm{HI}$; GLG $3 \mathrm{I} 8 \mathrm{HI}, 440 \mathrm{HI}, 465 \mathrm{HI} ; \mathrm{PHY} 35 \mathrm{IHI}, 407 \mathrm{HI}, 408 \mathrm{HI}, 499 \mathrm{HI}$
3. One additional $300+$ series course; consult with appropriate Undergraduate Secretary for course selection
Fourth Year:
PLN $420 \mathrm{HI}, 425 \mathrm{HI}$

## Planetary Science Courses

For Distribution Requirement purposes, all PLN courses are classified as SCIENCE courses (see page 27).

## PLN420HI Interdisciplinary Seminar in <br> \section*{Planetary Science}

Discussion of topics of current interest in planetary science with emphasis on papers published in scientific journals. This course is intended for students in the final year of the Planetary Science specialist program. Students must enrol with the course coordinator.

PLN425HI Research in Planetary Science I30P
Research report by student in consultation with individual staff member in Astronomy, Chemistry, Geology or Physics. This course is intended for students in the final year of the Planetary Science specialist program. Students must enrol with the course coordinator.

Polish: See Slavic Lanaguages and
Literatures

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Faculty
University Professor Emeritus
    P.H. Russell, OC, D Sc, MA, LL D, FRSC (I,T)
Professors Emeriti
    E.G. Andrew, BA, Ph D
    J.S. Barker, MA, Ph D (N)
    M. Brownstone, MS, DPA, LL D
    S. Clarkson, MA, D de Rech, FRSC (M)
    S.J. Colman, MA
    M.W. Donnelly, MA, Ph D
    J.S. Dupré, OC, O Ont,AM, Ph D, DScSoc, LL D, DU
    V.C. Falkenheim, MA, Ph D
    P.W. Fox, OC, MA, Ph D
    W.E. Grasham, BA Sc, MA
    R. Gregor, MA, Ph D (T)
    FJ.C. Griffiths, MIA, Ph D (U)
    J.E. Hodgetts, OC, MA, Ph D, LL D, FRSC
    G. Horowitz, MA, Ph D
    A.W. Johnson, CC, MA, MPA, Ph D, LL D
    B. Kovrig, MA, Ph D (T)
    \daggerA.M. Kruger, BA, Ph D
    R.A. Manzer, MA, Ph D (UTSC)
    R.O. Matthews, BA, MIA, Ph D (T)
    J.T. McLeod, MA, Ph D (U)
    J. Nun, LL M, Ph D
    F.W. Peers, B Ed, MA, Ph D
    R.C. Pratt, OC, MA, M Phil, FRSC (U)
    \daggerA. Rotstein, BA, Ph D (M)
    P. Silcox, MA, Ph D (UTM)
    J.E. Smith, AB, Ph D, DLit
    R.E. Stren, MA, Ph D (I)
    C.Tuohy, MA, Ph D, FRSC
    M.E.Wallace, BA, Ph D, FRSC
    \dagger M.H.Watkins, B COM, LL D (U)
Professor and Chair of the Department
    D.R. Cameron, M Sc, Ph D, FRSC
University Professor and Associate Chair
    J.G. Stein, OC, MA, Ph D, LL D, FRSC (U)
Professor and Associate Chair (Graduate
Studies)
    D.A.Welch,AM, Ph D (U)
```


## Associate Professor and Associate Chair

``` (Undergraduate Studies)
L.White, MA, Ph D
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## Professors

```
E. Adler, BA, MA, Ph D
S. Bashevkin, MA, Ph D, FRSC (U)
H. Bathelt, Dipl-Geogr, Dr rer nat, Habil
R.S. Beiner, BA, D Phil, FRSC (UTM)
\(\dagger\) S. Borins, BA, MPP, Ph D
A. Braun, MA, Ph D (UTM,T)
\(\dagger\) A.S. Brudner, LL B, MA, Ph D
J.H. Carens, M Phil (Theol), M Phil, Ph D
S.E. Chambers, MA, M Phil, Ph D
```

$\dagger$ F.A. Cunningham, MA, Ph D, FRSC (I)
R.B. Day, Dip REES, MA, Ph D (UTM)
$\dagger$ R.B. Deber, SM, Ph D (Health Policy)
H.D. Forbes, MA, Ph D
$\dagger$ R. Hirschl, LLB, MA, M Phil, Ph D
$\dagger$ T. Homer-Dixon, BA, Ph D (U)
J.S. Kopstein, MA, Ph D
L. LeDuc, MA, Ph D (SM)
P.R. Magocsi, MA, MA, Ph D, FRSC
J. Nedelsky, MA, Ph D
N. Nevitte, MA, Ph D
C. Orwin, MA, Ph D (SM)
L.W. Pauly, MA, M Sc, Ph D (T)
D.M. Rayside, AM, Ph D (U)
$\dagger$ K. Roach, LLB, LLM, FRSC
A.G. Rubinoff, MA, Ph D (UTSC)
K.R.J. Sandbrook, MA, D Phil, FRSC
D.V. Schwartz, MA, Ph D
$\dagger$ R. Simeon, MA, Ph D, FRSC
G. Skogstad, MA, Ph D (UTSC)
P. H. Solomon, MA, Ph D (UTM)
S.G. Solomon, MA, Ph D (UTSC)
$\dagger$ A. Stark, M Sc, AM, Ph D
J.A. Teichman, MA, Ph D (UTSC)
R.Vipond, MA, Ph D (V)
$\dagger$ L.E. Weinrib, BA, LL B, LL M
G. White, MA, Ph D (UTM)
M.S. Williams, AM, Ph D
D.A.Wolfe, MA, Ph D (UTM)

## Associate Professors

R.K. Balot, MA, Ph D
S. Bernstein, MA, Ph D (UTM)
J. Bertrand, M Sc, MA, Ph D
$\dagger$ S. Choudhry, LLB, LLM
D.B. Cook, MA, Ph D (V)
R.J. Deibert, MA, Ph D (T)
$\dagger$ D.L. Eyoh, MA, Ph D (N)
J.F. Fletcher, MA, Ph D
R.S. Haddow, M Sc, Ph D
R. Hansen, M Phil, D Phil
P.W.T. Kingston, MA, M Phil, D Phil (UTSC)
J.J. Kirton, MA, Ph D (T)
$\dagger$ N. Kokaz, MA, Ph D (U)
P.L. McCarney, MCP, Ph D
$\dagger$ D. Schneiderman, LLB, LLM
$\dagger$ A. Shachar, BA, LLB, LLM, JSD
$\dagger$ L. Sossin, MA, LLM, Ph D, JSD
N.Wiseman, MA, Ph D
J.Wong, MA, Ph D

Assistant Professors
L. Alexander, MA, Ph D
A.M. Bejarano, MA, M Phil, Ph D (UTM)
S. Benjamin, B Arch, MS Arch, Ph D
L. Gilady, MA, M Phil, Ph D
A. Handley, M Phil, Ph D
A. Henderson, M Sc, Ph D (UTM)
M.J. Hoffmann, M Phil, Ph D (UTSC)

```
R. Kingston, MA, Ph D
R. Levine, MA, Ph D
W. Mwangi, MA, Ph D (UTM)
C. Norrlöf, MA, Ph D (UTSC)
D. Pond, MA, Ph D (UTM)
E. Schatz, MA, Ph D, (UTM)
T. Triadafilopoulos, MA, Ph D (UTSC)
L.Way, MA, Ph D (UTSC)
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## Senior Lecturer

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M. Lippincott, MA, Ph D (UTM)
\(\dagger\) Cross-appointed
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The study of Political Science at the University of Toronto is wide-ranging and diverse. Courses are offered in political theory, Canadian government, international relations, and the politics of societies that are industrialized, developing, and in transition. Many courses deal with issues (such as environmental politics, diversity, peace and conflict, globalization) that cut across fields. Course offerings are designed to introduce students to Political Science at the first year level, provide the foundations for further study at the second year level, and provide specialized lecture and seminar courses at the intermediate and advanced levels. Studies in Political Science provide students with a good grounding in one of the chief social science disciplines and an opportunity to explore the issues that confront us as individuals, groups, societies and on the international level as we prepare for the twenty-first century. In addition to the materials covered, Political Science courses are set up to offer students an opportunity to learn writing and analytical skills to support a challenging and diverse career.

Courses in Political Science dovetail with programs in many other disciplines of the social sciences and the humanities: Economics, Sociology, History, Philosophy, and Psychology. A student interested in Canadian studies or urban problems, for example, would be well advised to choose courses from all these disciplines, as would someone interested in international affairs or foreign area studies. A student planning graduate work in the social sciences should seek to obtain a basic understanding of each of these disciplines.
The Department publishes a Handbook for undergraduate students that provides detailed information on our programs, extended descriptions of courses, and background information on the interests of our instructors, and advice on how to put together a program. Copies may be obtained from the Department Office on the third floor of Sidney Smith Hall, or from the offices of College Registrars. The Association of Political Science Students, the students' organization for Political Science undergraduates, has an office in Room 1091, Sidney Smith Hall.

Undergraduate Director: Professor L.White, Sidney Smith Hall, Room 3030 (416-978-3342)

Undergraduate Administrator: E. Jagdeo, Sidney Smith Hall, Room 3027 (416-978-3340)

Enquiries: (416-978-3343)
Undergraduate Program Information and Course Descriptions: http://www.chass.utoronto.ca/polsci

## Political Science Programs

## Political Science (Arts program)

Enrolment in the Political Science Specialist, Major, and Joint Specialist Programs is limited. Students enrolling at the end of first year (or four full courses or their equivalent) must obtain a cumulative GPA of at least 2.0 and a mark of at least $67 \%$ in one full Political Science course or the equivalent in half courses. Students applying to enrol after second year (or eight full courses or their equivalent) must obtain a cumulative GPA of at least 2.3 and a mark of at least $70 \%$ in each of two full Political Science courses or the equivalent in half courses.

## Specialist program:

( 10 POL full courses or their equivalent including two 300+ series courses and two 400 -series courses)

## Notes:

I. At least one course in Canadian politics must be completed. The Canadian politics requirement will be satisfied by only POLIO3YI/2I4YI.
2. Students must complete courses in at least four fields: Canadian politics, political theory, and two of international relations, comparative politics (industrial), comparative politics (developing).
First Year:
POLI03YI/I05YI/I08YI
Higher Years:
I. POL200YI, $242 \mathrm{YI}, 320 \mathrm{YI}$
2. Two full courses from the following: POL20IYI/(203YI/ 207YI)/208YI/2I4YI/2I5YI
3. Four additional POL courses

## Major program:

(7 POL full courses or their equivalent including at least two $300+$ series courses)

Note:
At least one course in Canadian politics must be completed. The Canadian politics requirement will be satisfied by only POLI03YI/2I4YI.
First Year:
POLI03YI/I05YI/I08YI
Higher Years:
l. POL200YI
2. Two full courses from the following: POL20IYI/(203YI/ $207 \mathrm{YI}) / 208 \mathrm{Y} / / 214 \mathrm{Y} / / 215 \mathrm{Y} I$
3. Three additional POL courses

## Minor program:

(4 POL full courses or their equivalent)
Enrolment in this program is limited to students with a minimum grade of $65 \%$ in a POL course; and all students need to have completed 4 full course equivalents toward a degree.

## Note:

The four POL full courses or their equivalent to include at least one $300+$ series course and no more than one at the 100 level.
Political Science and Economics: see Economics
Political Science and History: see History
Political Science and Philosophy: see Philosophy

## Political Science and Sociology (Arts program)

Consult Department of Political Science.
Enrolment in this program is limited to students with $65 \%$ in SOC IOIYI, and $70 \%$ in each of SOC $200 \mathrm{HI}, 202 \mathrm{HI}, 203 \mathrm{YI}$, and 204 HI . Students need to have completed 8 full courses and be enrolled in the Sociology Major program. Students should also have met the requirements of the Political Science Department (see details under Political Science above).

## Specialist program (Arts program):

( 14.5 full courses or their equivalent)

## Political Science

Seven courses, including at least one $300+$ series course and one 400 -series course.

## Note:

At least one course in Canadian politics must be completed. The Canadian politics requirement will be satisfied by only POLI03YI/2I4YI.

## First Year:

POLIO3YI/IO5YI/IO8YI
Higher Years:

1. POL200YI
2. Two full courses from the following: POL20IYI/(203YI/ 207YI)/208YI/2I4YI/2I5YI
3. Three additional POL courses

## Sociology

7.5 full courses or equivalent

First Year:
SOC IOIYI
Higher Years:
I. SOC $200 \mathrm{HI}, 202 \mathrm{HI}, 203 \mathrm{YI}, 204 \mathrm{HI}, 300 \mathrm{HI}, 376 \mathrm{HI}, 377 \mathrm{HI}$, $387 \mathrm{HI}, 40 \mathrm{IYI}$
2. One of the following: SOC $2 I O Y \mathrm{Y} / 213 \mathrm{YI} / 220 \mathrm{YI} / 260 \mathrm{YI} /$ $30 \mathrm{YI} / 306 \mathrm{YI} / 340 \mathrm{YI} / 360 \mathrm{YI} / 369 \mathrm{YI}$

## Political Science Courses

SSCI99HI/YI First Year Seminar
52 S
Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course; see page 47.

## PLEASE NOTE:

Not all courses are offered every year.
Almost all upper-level POL courses have prerequisites. Students without course prerequisites will be removed at any time they are discovered.

## 100-Series Courses

Note:
Students may enrol in only one of the following courses: POLIO3Y, $105 \mathrm{Y}, 108 \mathrm{Y}$. All 100 -series POL courses are mutually exclusive. Students enrolled in more than one of these courses (or completed one of these courses or a previous POL 100 -series course with a mark of at least $\mathbf{5 0 \%}$ ) will be removed at any time they are discovered.

## POLI03YI Canada in Comparative 52L, 26T Perspective

This course introduces students to politics using a comparative approach; it examines the variety of political regimes that exist around the world, with particular attention to Canada. Emphasis is placed on how distinctive regimes reflect the different past and present social and economic settings of countries.
Exclusion: POLI00Y, 102Y, 105Y, I08Y, 180H, I8IH
POLI05YI Ethics and the Public Sphere 52L, 26T
An introduction to fundamental questions about the relation between ethics and politics. Do the constraints of political life entail a different set of ethical standards for individuals and groups than in other domains of life? How do various kinds of ethical issues become political ones? How should ethical disagreements be handled politically?
Exclusion: POLI00Y, 102Y, 103Y, $108 \mathrm{Y}, 180 \mathrm{H}, 181 \mathrm{H}$
POLI08YI Global Networks 52L, 26T
This course introduces students to the theory and practice of global networks and how networks differ from states and markets. The course begins with an overview of the differences between states, markets and networks in global politics. It then turns to several cases of contemporary networks, including terrorist, civil society, ethnic, and financial networks. The course concludes with an examination of the many challenges of regulating, hacking and holding accountable global networks in the 21 st century.
Exclusion: POLI00Y, I02Y, I03Y, I05Y, I80H, I8IH, A83H/A84H
(UTSC)

## 200-Series Courses

POL200YI Political Theory:Visions of the 52L, 26T Just/Good Society
A selective presentation of critical encounters between philosophy and politics, dedicated to the quest for articulation and founding of the just/good society. Among the theorists examined are Plato, Aristotle, Machiavelli, Hobbes and Locke.
POL20IYI Politics of Development: 52L, I3T Issues and Controversies
A survey of the developmental challenges facing societies in Latin America, the Caribbean, Asia and Africa, and the efficacy of various development strategies and policies in meeting these challenges.
Prerequisite: One full POL course/4.0 FCEs in the Faculty of
Arts and Science
POL203YI U.S. Government and Politics 52L, 26T
An introduction to U.S. government and politics within an analytical framework that helps us understand how institutions structure incentives and decisions in the U.S. system. This class examines the political forces that forged contemporary American institutions to understand how these political institutions continue to provide stability while allowing opportunities for political change. We investigate whether these forces make American institutions different and why. Special attention is paid to current events and contemporary policy dilemmas.
Prerequisite: One full POL course/4.0 FCEs in the Faculty of
Arts and Science/ express permission of the instructor.

## POL207YI Politics in Europe 52L, 26T (formerly POL302Y) <br> An introduction to comparative politics with a focus on

 Western Europe: types of democracy, changing economic and social governance, organized interests in Europe, party landscape, social movements. Special attention to Germany, Britain, France, Italy, and the European Union.Exclusion: POL302Y
Prerequisite: A course in POL/EUR200Y
Recommended preparation: General history of Europe

## POL208YI <br> Introduction to <br> 52L, 26T <br> International Relations

The course analyzes the impact of the individual, the nationstate, and the international and transnational systems on international conflict and conflict resolution, and examines the major problems the international community confronts in a rapidly changing international environment.
Prerequisite: One full POL course/4.0 FCEs in the Faculty of
Arts and Science/express permission of the instructor.
Recommended preparation: Prior reading or study of modern history
POL2I4YI Canadian Government 52L, 26T and Politics
Canada's political system including the Constitution and institutional pillars of governance: cabinet and parliament, federalism, the Charter of Rights. Topics include: political parties, the electoral system, policymaking and public administration. Issues include identity, citizenship, ideology and political culture, regionalism, language politics, aboriginals, multiculturalism, gender, media, and interest groups.
Exclusion: POL I00Y, I02Y

Prerequisite: One full POL course/4.0 FCEs in the Faculty of Arts and Science
POL2I5YI Politics and Transformation of 52L, 26T Asia-Pacific
This course provides a comparative analysis of selected countries of East and Southeast Asia, with an emphasis on changing views of citizenship as they have been shaped by political, socio-economic and cultural transformations in the region. The first term deals with the idea of the developmental state, inequality, democratization and nationalism. The second term takes up questions related to governance and corruption, culture, demographic changes and nascent forms of regionalism and globalization.
Prerequisite: One full POL course/4.0 FCEs in the Faculty of Arts and Science
POL242YI Introduction to Research 52L, 26T Methods
This course is aimed at helping Political Science students to understand and use the quantitative methods and research designs now widely employed throughout the discipline.
Prerequisite: A course in POL

## POL299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.

## 300-Series Courses

## Note:

## Enrolment in POL $\mathbf{3 0 0}$-series courses is limited. See Registration Handbook and Timetable for details.

POL300HI/YI Topics in Comparative Politics 26L/52L An introduction to the field of comparative politics. Content in any given year depends on instructor.
Prerequisite: A course in POL
JMC3OIYI State and Society in 20th
52L

## Century China

This course explores China's efforts to construct a modern and effective political order in the face of powerful demographic and revolutionary challenges. The clash between competing ideologies, political and social movements and institutional alternatives in the context of rapid social and economic change are analyzed. (Given by the Departments of East Asian Studies and Political Science)
Prerequisite: EASI02Y/HIS280Y/328Y/POL2I5Y/permission of the instructor
This is a Humanities and Social Science course
POL30IYI Government and Politics in Africa 52L The continuing relevance of pre-colonial Africa; the nature and legacy of colonial rule; African nationalism and the consolidation of power in the newly-independent states; government, party and the people; the role of the military; national integration; dependency and neo-colonialism; socialism and development; democracy and human rights. Prerequisite: A course in POL

## JHP304YI Ukraine: Politics, Economy and Society <br> (formerly JHP 204Y)

The history of Ukraine from earliest times to the present. Economic, political, and cultural movements; Kievan Rus', PolishLithuanian Commonwealth, Cossack state, national revival, twentieth century statehood, and unification. As this course is designed as an introductory course, the professor welcomes first- and second-year students to enroll, as well as upper-level students. (Given by the Departments of History and Political Science)
Exclusion: JHP204Y

## POL304HI Ethnicity and Politics in Canada (formerly POL304YI)

Development of political institutions / policies to manage ethnic relations; political strategies and resources available to ethnic and national minorities for achieving goals. Case studies: selfgovernment and First Nations; renewed federalism/sovereignty association and Quebecois; multiculturalism and minority rights.

## Exclusion: POL304Y/SOC2IOY

Prerequisite: POLI03Y/2I4Y

## POL305YI Politics and Society in Latin 52L America

The colonial heritage, the failure of nation-states to develop as integrated and autonomous power structures, dependent capitalism and political order, contrasting types of domination, rigid monopolization and the flexible use of the state by the ruling sectors, national revolution and the socialist alternative. Prerequisite: A course in POL

## POL3IOYI Managing International 52L Conflict

Analysis of different aspects of conflict management, including security regimes, U.N. peacekeeping, mediation, bilateral as well as multilateral techniques.
Prerequisite: POL208Y

## POL3IIYI Ideas and Ideologies in Canadian Politics

A study of the ideas that underlie Canadian politics emphasizing the similarities and differences between political parties. The sources and nature of liberalism, conservatism, socialism, nationalism, and multiculturalism in Canada.
Prerequisite: POLI03Y/214Y
POL3I2YI Canadian Foreign Policy 52L
Canada's response to the challenges of globalization and the post-cold war world. The major alternative theoretical approaches, the changing doctrines and patterns of Canadian foreign policy from 1945 to the present, the making of Canadian foreign policy, relations with the United States, within NAFTA, and with other global regions.
Prerequisite: POLI08Y/208Y
POL3I3YI Politics and Psychology 52L
Psychological implications of political theories. Attention to alternative approaches to research and theorizing. The bearing of psychological perspectives on political issues.
Prerequisite: A course in POL/PSY
POL3I4YI Public Opinion and Voting
The attitudes and behaviour of the mass public in Canada and other western democracies, with emphasis on voting and elections. Themes include the nature of social, psychological,
and economic forces on public opinion and voting, political participation, mass media, public opinion polling, electoral systems, the role of parties, leaders, and issues in elections. Examination of recent national surveys of Canadian electorate. Exclusion: POL3I4H
Prerequisite: POLI03Y/2I4Y
POL3I5HI Sexual Diversity Politics 39L
An interdisciplinary examination of the development of political visibility by gays, lesbians, bisexuals, and the transgendered in the contemporary period; and an analysis of public policy on and state regulation of sexual diversity in Canada, the U.S., Britain and other European countries.
Exclusion: POL3I5Y
Prerequisite: UNI $255 \mathrm{H} / 256 \mathrm{H} /$ one full course on the politics of 20th century Europe, U.S., or Canada/one full course on gender or sexuality/permission of the instructor

## POL3I6YI Contemporary Canadian 52L

 FederalismConstitutional, political, administrative, and financial aspects of federal-provincial relations, regionalism, and cultural dualism. Prerequisite: POLIO3Y/214Y

## POL3I7YI Comparative Public Policy: Developing World Perspectives and Global Change

Draws from the major theoretical traditions in public policy and policymaking of the advanced industrial world, and applies these theories in understanding the developing world context and the new challenges of global change.
Prerequisite: EUR200Y/POLI03Y/I08Y/203Y/2I4Y
POL3I8HI Canada and the Global Challenge 26L Since $9 / 1 \mathrm{I}$, Part I: NAFTA
Deals with the political economy of Canada's position in North America. Starting with Harold Innis's theory of staple growth and the debate about the role of foreign investment in its economic (mis)development, we examine how Canada, having long resisted continental economic integration, turned to free trade as a panacea in the 1980s. The course ends with a detailed investigation of NAFTA's significance for Canadian public policy options in the light of the US war on terrorism.
Exclusion: POL34IH (taken in 2007)
Prerequisite: POLI03Y/I08Y/214Y
Recommended preparation: ECOI00Y/I05Y
POL3I9YI American Constitutional Law 52L The American Constitution and the Supreme Court's role in its exposition and development. The fundamental principles of the constitution, judicial power, federalism, civil rights, freedom of speech and religion, criminal procedure. Discussion of Supreme Court cases. Comparisons with Canadian constitutional law throughout.
Prerequisite: POL203Y/a course in American history
POL320YI Modern Political Thought 52L, 26T
The development of political thought from the Enlightenment and through the 19th century; implications for political thought in the 20th century. Democratic and anti-democratic tendencies. Prerequisite: POL200Y

## Political Science

## POL32IHI Ethnic Politics in Comparative

 Perspective(formerly POL32IYI)
Theoretical approaches to ethnic conflict and accommodation. Case studies drawn from:West Europe: conflict (Northern Ireland, Spain), consociation (Switzerland), and treatment of immigrant minorities; Israel and South Africa; East European disintegration:Yugoslavia and Czechoslovakia; collapse of former Soviet Union and conflict / state-building in post-Soviet space. Exclusion: POL32IY
Prerequisite: POLI03Y/I08Y/214Y/EUR200Y

## POL323HI Might and Right Among Nations (formerly POL323YI)

An exploration of the issue of justice among nations. Is such justice genuine or is it largely spurious? What are the prospects for a just international order? Careful examination and thorough discussion of texts by Thucydides, Rousseau, Kant, and other first-rate thinkers on these issues.
Exclusion: POL323Y
Prerequisite: POL200Y/208Y

## POL324YI European Politics in a Global World

Integration in Europe: examines the forces that have historically divided and united the European continent. Particular attention is paid to the politics of regional disparities, the European Union and its institutions, and the dilemmas of including Europe's peripheries into broader economic and security structures of the continent.
Prerequisite: EUR200Y/a course in POL

## POL326YI United States Foreign Policy 52L

The foreign policy of the United States: tradition and context of American decision-making, the process by which it is formulated, application to a number of specific regions and problems in the world.
Prerequisite: POL203Y/208Y

## POL330HI Politics and Morality 39 <br> The relationship between the individual's quest for the good

 life and the political order. The role of the wise person in civil society. Study of a small number of texts.Exclusion: POL330H/Y
Prerequisite: POL200Y

## POL332YI Courts, Law, and Politics in Comparative Perspective

52L

A study of the role, autonomy, and power of courts in countries with different political regimes (USA, France, Russia), and of the problem of legal transition in formerly authoritarian, especially post-communist states.
Recommended preparation:A course in politics or history of the USA, Europe, or USSR/Russia or on courts/ constitutionalism.

## POL333YI Comparative Provincial Politics

Similarities and differences in provincial political systems. Comparative analysis of provincial societies, cultures, and institutions. Examination of political parties, leaders, elections, voting behaviour, and policy outputs.
Prerequisite: POLI03Y/2I4Y
POL334HI Quebec Politics and Social Change 26L Study and analysis of the major events and issues in Quebec society and politics. Concentrates on recent years and on the political implications of post-war economic and social change. Exclusion: POL334Y
Prerequisite: POLI03Y/2I4Y

POL335HI Politics and Government of Japan 26L
The course is designed to trace Japan's rise to global prominence in the 20th century. Why has globalization in recent years prompted such extraordinary political and economic difficulties in Japan? The areas of discussion include also social and cultural aspects of modern public life.
Exclusion: POL335Y
Prerequisite: A course in POL
POL336HI Ontario Politics 26L
Government and politics in Canada's most populous province. Topics include the historical, socio-economic, and comparative settings of provincial politics. Attention is devoted to institutions, parties and elections, intergovernmental relations and the policy continuities and discontinuities of recent years. Exclusion: POL336Y
Prerequisite: POLI03Y/214Y
POL337YI The Canadian Constitution 52L
The moral foundations, historical events, political forces and legal ideas that have shaped the Canadian constitution; the roots, legacies, and judicial interpretation of the Constitution Act 1867, the Constitution Act 1982, and the Charter of Rights and Freedoms; the politics of constitutional change; "differentiated citizenship","rights talk", and the judicialization of politics.
Prerequisite: POLI03Y/2I4Y
POL340YI International Law
52L
International law as an instrument of conflict resolution.
Recognition, sovereign immunity, subjects of international law, jurisdiction.
Prerequisite: POL208Y
POL34IHI Canada and the Global Challenge 26L Since $9 / I I$, Part II:The WTO
Political economy of Canada's position in the world trading system. Starting with globalization (understood as the economic and technological forces driving the integration of capital, production, and distribution markets across national borders) and global governance (institutional structures and rules established to manage countries' international economic behaviour), we focus on how, in the new security context of the US war on terrorism, the World Trade Organization affects Canada's capacity to develop policies for cultural, economic and environmental development.
Exclusion: POL3I8H (taken in 2007)
Prerequisite: POLI03Y/I08Y/214Y
Recommended preparation: ECOI00Y/I05Y
POL342HI Culture and Identity in World Politics
A postpositivist and postmodernist critique of mainstream international relations thinking. In deconstructing prevalent assumptions about world politics as represented primarily by neorealist and neoliberal thought, this course highlights alternative perspectives on the construction and the emancipatory potential of political life.
Exclusion: POL342YI
Prerequisite: POL208Y
JPP343YI Women in Western Political 52L Thought
An examination of selected texts in ancient and modern political theory focusing on the conceptual division between private and public spheres of activity and the theorization of sexual difference and sexual equality. Examines contemporary
feminist perspectives in political theory. (Given by the Departments of Philosophy and Political Science) Prerequisite: NEW360Y/PHL265H/POL200Y
POL343YI Politics of Global Governance
The history and politics of international governance, with particular emphasis on the League of Nations and its 19th century antecedents, the United Nations and the emergence of nongovernmental organizations; informal institutions and structures; and specific issue areas such as development, trade, finance, human rights and the environment.
Prerequisite: POL208Y
POL344HI Social Movements in Europe and 26L

## North America

## (formerly POL344YI)

A comparative examination of the development of a variety of social movements, and their engagement with state institutions. Among the activist movements being examined are those dealing with gender, the environment, and labour.
Exclusion: POL344Y
Recommended preparation: One full course on 20th century politics or history of Europe, U.S. or Canada/one full course on gender or sexuality

## POL345HI Becoming Israel:War, Peace, and 39L

 the Politics of Israel's IdentityAn introduction to Israeli politics, society, institutions and political practice from the perspective of the development of Israeli identity (identities). Particular attention will be given to the sources of Israeli identity, to the main players involved in its politics, and to the role of regional war and the peace process in its development and inner conflicts.
Prerequisite: A course in POL

## POL346HI Environmental Conflict and Security

The relationship between human-induced environmental stress and national and international security, with a special focus on the likelihood of environmentally related violence in the developing world. Some treatment of the technical aspects of global environmental change.
Exclusion: POL346Y
Prerequisite: POL20IY/208Y

## POL347YI Politics and Environment in the <br> North and South

The comparative politics of the environment. An examination of the environmental movement in northern countries (Canada, United States, Western Europe), and its extension into southern countries (Latin America, Africa and Asia). Analyzes differences in policies and politics between northern and southern regions, and the local effects of globalization.
Prerequisite: POLI03Y/20IY
POL348YI Comparative Politics in a 52L Global World
Concepts and theories of comparative politics to understand both developing and advanced industrial states; includes comparative method, modernism/post-modernism, revolution and protest, ethnic conflict and nationalism, democracy, authoritarianism, regime change, political culture, the role of institutions, civil society and corporatism, states and markets. Prerequisite:A course in POL; minimum 9 FCEs
POL349YI Globalization and Urban Politics 52L Major cities around the world have become intimately involved in a much more globalized world. The focus of this course is the
political response of Canadian, American and European cities to this major challenge. Throughout the course, we ask what options are open to our cities effectively to operate in this new arena, while retaining their local values and democratic culture. Exclusion: POL349HI
Prerequisite:POLI03Y/203Y/214Y

## POL350HI Comparative Health Politics and Policy

This course explores the historical and current theoretical debates surrounding health policy. In so doing, it offers a framework for examining different health system arrangements, and the politics of health care policymaking, in both the developed and developing world contexts, including cases from North America, Europe, East Asia, Latin America and Africa.
Prerequisite: 4.0 courses in the Faculty of Arts and Sciences, including at least one full year course in the social sciences (political science, sociology, history, anthropology, etc.)

## POL35 IYI Gender, Politics, and Public 52L Policy in Comparative Perspective

An introduction to gender and politics that examines women as political actors and their activities in formal politics. It addresses questions such as does women's under-representation in formal politics matter? What difference do women make when they are elected? The second part explores a number of substantive public policy issues of interest to and that impact women. Prerequisite: A course in POL

## POL352HI Inside Canadian Governments: 26L Understanding the Policy Process

This course could aptly be titled "the guts of government." It explores the institutions and processes that are involved in making public policies, and examines the challenges faced in public sector governance. Topics include new public management, alternative service delivery, and other ideas, institutions, and processes that have emerged to deliver public services.
Prerequisite: POLI03Y/2I4Y

## POL354YI Politics and Society in Russia 52L

 (formerly POL354HI)Explores tensions between democracy and authoritarianism after communist rule. Topics include: legacy of Soviet Union; political leadership; presidential power and executive legislative conflict; federalism; elections and parties; civil society; ethnonationalism; corruption and organized crime.
Exclusion: POL204Y/354H
Prerequisite: One full POL course/ 4.0 FCEs in the Faculty of Arts and Science
POL356YI Canadian Political Parties 52L
The evolution and setting of Canada's federal and provincial party systems. Topics include historical and theoretical perspectives, ideology, leadership selection, elections, financing, media, and representing interests.
Exclusion: POL2IIY
Prerequisite: POLI03Y/I08Y/2I4Y

| POL357HI | Topics in South Asian Politics <br> (formerly POL357YI) |
| :--- | :--- |

Selected issues in South Asian politics. Content in any given year depends on instructor.
Exclusion: POL357Y
Prerequisite: POL2OIY/ permission of instructor

## Political Science

## POL358YI Post-Colonial Questions: Politics,

 Knowledge, PowerThis course interrogates the historical trajectories of colonialism and the emergence of the postcolonial condition by asking what is the "post" in post-colonial? What are the relationships between domination, ways of knowing and thinking about self and other, space and bodies? How do forms of violence become legitimated and deployed?
Prerequisite: POL200Y/20IY/NEWI50Y/permission of instructor

## POL359YI Enlarging Europe:The

## European Union and Its Applicants

The course provides an overview of the salient issues in the past enlargement rounds, furnishing the context for the study of current and future integration efforts. Readings will cover the current round of enlargement to the Central and East European countries, efforts related to South-Eastern Europe, as well as Turkey. Issues between the EU and Ukraine and Russia will also be studied, as will the relationship between the Union and its Southern Rim. Security issues related to NATO integration and operations will also be covered.
Prerequisite: EUR200Y/POLI03Y/I08Y

## POL364HI Religion and Politics

A comparative exploration of the political influence of religion in Canada, the United States, with some examples drawn from other regions in the world. Topics will include the political influence of high levels of religiosity, of progressive and traditionalist faith currents, and of organized religious institutions; the implications of religious rights for liberal democratic political practices; and the similarities and differences between Islamic, Christian, and Jewish interventions in western political systems.
Prerequisite: I FCE in the politics or history of 20th/2 Ist century Europe, U.S. or Canada; or I FCE in religious studies
POL366Y0 The New Europe: Culture Politics 52L and Society in Central Europe
This course examines the politics and societies of Central Europe, including Poland, Hungary, Czech Republic, Slovakia, and Austria. It deals with the key issues in the post-communist period including minority-majority relations, the profound social, political and economic changes since the fall of communism, and the "return to Europe".

## POL367Y0 Australia in Transition

This course focuses on the dynamic changes that have been taking place in Australia since 1901. It examines Australia's rich indigenous and non-indigenous history; the complexity and challenges of Australia's migration and multiculturalism; key issues and practices in contemporary Australian politics; the complex interplay between institutional processes, political interest and the media; and the dynamics of Australia's engagement with the region and the rest of the world.

## POL370YI International Political Economy

(formerly POL454YI)
Organized around important topics in the study of international political economy. It explores the political underinnings of the global economy and the economic forces reshaping contemporary political environments. Specific policy issues are treated in a context that evaluates the explanatory power of various theoretical approaches.
Exclusion: POL454YI

## Prerequisite: POLI08Y/208Y; ECOIO0Y

POL37IHI Institutions and the Spatial

## Construction of the

 Political EconomyThis course applies a relational perspective of economic action which emphasizes context, path-dependence and contingency. It explores the intentions, opportunities and constraints of economic agency by analyzing the interdependencies between institutions at different levels and industrial organization, interaction, innovation and evolution, thus exploring the spatial construction of the political economy.
Recommended Preparation: ECOIOOY/ECOI05Y
Prerequisite: POLI03Y/I08Y/207Y/208Y
POL380HI/YI Topics in International Politics 26L/52L
Content in any given year depends on instructor.
Prerequisite: POLI08Y/208Y
POL395HI/ Research Participation TBA
396HI/

## 397Y I

Credit course for supervised participation in a faculty research project. Offered only when a faculty member is willing and available to supervise. Interested faculty review plans with the Undergraduate Director, and then make the opportunity known to students as appropriate. Check with Undergraduate Office for more details and faculty proposal form.
Prerequisite:Available to students in their third year of study (who have completed at least 9 full courses or their equivalent)
Exclusion: POL299Y
POL398H0/ Independent Experiential Study Project 399Y0
An instructor-supervised group project in an off-campus setting. See page 47 for details.

## 400-Series Courses

## Note

Enrolment is limited in all Political Science and Joint Political Science $\mathbf{4 0 0}$-series courses. See Registration Handbook and Timetable for details.

POL40IHI | Dynamics of the Global |
| :--- |
| Trade System |

This course addresses the global trading system by examining the political, economic, legal, and institutional forces that shape today's contemporary international system. It focuses particularly on the tension that have been generated between these globalizing technological and economic factors and the continuing efforts to protect national autonomy. At the top of the global trade regime sits the World Trade Organization which has emerged as the adjudicator of global trade law. Canada is equally affected by the North American Free Trade Agreement which, with the WTO, has reconstructed the governance of North America.
Prerequisite: Minimum 14 FCEs
Recommended Preparation: Some international economics and Canadian political economy.

## POL402HI <br> Problems in the Political Thought <br> 26S

of the Socratic School (formerly POL402YI)

Study of a small number of texts illuminating the origins and/or legacy of Socratic political philosophy.
Exclusion: POL402H/YI
Prerequisite: $\mathrm{POL} 320 \mathrm{Y} / 323 \mathrm{H} / 323 \mathrm{Y} / 330 \mathrm{H} / 330 \mathrm{Y}$

## POL403HI Colonialism/Post-Colonialism: The Colonial State and Its Forms of Power

The course examines the late colonial state with examples drawn mostly from South Asia and Africa. The theoretical material used is from the field of colonialism postcolonial studies. Amongst the themes that may be examined are colonial governmentality and the production of identities.
Prerequisite: POL358Y/362H+363H (UTM)/permission of instructor

POL404HI The Problem of Natural Right 26S
A study of selected texts in ancient and/or modern political philosophy that reveal the arguments for and against the idea of natural right.
Exclusion: POL404Y
Prerequisite: POL320Y/323H/323Y/330H/330Y

## POL405YI Marxism <br> 26L, 26S

A study of Marxism as political economy and philosophy with emphasis upon dialectics. Begins with Aristotle, Smith, Kant, Hegel and Marx. Includes Lenin, Trotsky, Bukharin, Preobrazhensky, Pashukanis, Hilferding, Bernstein, Kautsky, Luxemburg, Korsch, Gramsci, Marcuse, Lukacs, Althusser, Habermas. Theme: relations between science, economics, politics, law and philosophy.
Prerequisite: POL320Y
POL408HI Innovation and Governance $26 S$
This course explores technological change, its socio-economic consequences, spatial implications and aspects of economic policies. As future growth in the knowledge-based economy will be increasingly associated with new products, services and processes, questions of innovation performance and support policy are decisive at the firm, regional and national levels. Prerequisite: ECO360Y/HPS20IH/HPS202H/a POL 200+
comparative industrial course/SOC3I7Y/SOC356Y
POL409HI Political Economy of Technology:
From the Auto-Industrial to the Information Age
The course explores the centrality of science and technology in political affairs generally and its current significance for public policy in particular. It applies the conceptual tools of political economy to analyze the nature of technological change in industrial democracies. It assesses the social and political consequences of the current wave of technological innovation and alternative responses of industrial democracies. (Offered in alternate years)
Prerequisite: CSC300H/ECO360Y/GGR43IH/HPS20IH/202H/
HPS43IH/POL 218Y5/a 300 or 400 level course in
comparative politics of industrial countries/SOC356Y

## POL4IOHI/YI Topics in Comparative

26S/52S

## Politics III

Selected issues in comparative politics. Varies from year to year.
Prerequisite:Two POL courses in comparative politics or permission of the instructor

POL4I2HI Human Rights, Democracy and 26S International Politics
(formerly POL4I2YI)
Explores human rights with reference to global politics and common ways of thinking about democracy and its limits. Materials to be considered are theoretical, practical, empirical and historical, a number of them from Latin America. The defence and protection of human rights provides the basic reference point.
Exclusion: POL4I2Y
Prerequisite: POL20IY/208Y/320Y

## POL4I3HI Global Environmental Politics 26S

Examines the challenges faced by humanity in dealing with global environmental problems and the politics of addressing them. Focuses on both the underlying factors that shape the politics of global environmental problems - such as scientific uncertainty, North-South conflict, and globalization - and explores attempts at the governance of specific environmental issues.
Recommended Preparation: A background in international relations and/or international political economy is strongly recommended.
Prerequisite: POL 208Y
POL4I4HI Identity, Democracy and Autocracy 26S in Ukraine
Enlargement of NATO and the EU into the former communist states of central and eastern Europe. Ukraine and some other post-communist states will be used as case studies to explain why some countries were successful in integration into NATO and the EU and the factors that blocked the integration of other states.

## POL4I5HI Nationalism, Myth and History: 26S Ukraine and the CIS

The role of nationalism, myths and identity in the transitions within post-communist states. Ukraine and other former Soviet states will be used as case studies to investigate the role of regionalism, nation-building, inter-ethnic relations, historical myths and language in their state building processes.
POL4I6YI Politics of the International System 52 S
This course explores the nature and evolution of the international system, from both theoretical and historical perspectives. The primary concern of the course is with the maintenance of order in any international system, as it has been created and maintained historically, and how theory suggests it might be attained. We will examine, using contending theoretical perspectives, such questions as how systemic characteristics evolve, what creates equilibrium within a particular system, which forces cause upheaval or destruction, and what impacts such changes have on the units within the system.
Prerequisite: POL208Y
POL4I7YI The Third World in International 52S Politics
The countries of Africa, Asia, Latin America, and the Middle East; their impact on the international system, and the external and internal factors that influence their international behaviour, with particular focus on civil wars.
Prerequisite: POL208Y/a POL course in comparative politics (developing countries)

## Political Science

## POL4I8YI Politics and Planning in Third World Cities

The social and economic problems faced by large third world cities; relationship between urban politics and the kinds of solutions that are advanced. Settlement issues and low-cost housing policies, unemployment and marginal populations, the dynamics of urban government, and the politics of planning. Prerequisite: POL20IY/30IY/305Y; minimum 14 FCEs

## POL4I9YI Quantitative Methods and Data Analysis

The use of advanced data analysis techniques in the social sciences, management and analysis of large datasets, techniques of multivariate analysis, problems of causal inference and interpretation of data.
Exclusion: POL4I9H
Prerequisite: POL242Y/one course in STA
Recommended preparation: basic familiarity with SPSS

## POL420YI Elements of United States Foreign Policy

Seminar on the tradition, process, and implementation of American foreign policy.
Prerequisite: POL203Y/208Y

## JPJ42IYI Comparative Constitutionalism: Rights and Judicial Review

The seminar explores the global expansion of judicial power through the constitutionalization of rights and the fortification of judicial review. Examination of moral foundations of constitutionalism; comparative analysis of constitutional rights jurisprudence; the politics of constitutional decision-making; and the impact of constitutional jurisprudence on social change.
Prerequisite: POL3I9Y/337Y
Recommended preparation: Basic grounding in the political and legal systems of the leading democracies is recommended.

## POL42IHI Maimonides and His Modern

 InterpretersThe course offers an introduction to the seminal work of Jewish philosophy, 'The Guide of the Perplexed' by Moses Maimonides. We will delve into some of the basic themes of Jewish philosophical theology and religion as they are treated by Maimonides.
Exclusion: RLG433HI
Prerequisite: Minimum 14 FCEs
POL422YI Topics in Soviet and Post-Soviet
In the first term, we will explore nationalities issues:
interpretations of nationalities policies in the Soviet Union; role of ethnonationalism in disintegration of the Soviet state; role of ethnonationalism in state building and interstate relations in the successor states. In the second term, the seminar will explore law and politics in post-Soviet Russia, including courts and judicial reform, constitutional development, business disputes, and corruption.
Exclusion: POL422H
Prerequisite: HIS35IY/POL204Y/354Y/a course in Russia/Soviet or East European politics

## POL423HI The Politics of Public Sector 26S Budgeting

The course examines public sector budgeting at the federal and provincial levels in Canada. It investigates how economic, political and institutional factors are transformed into budgetary policy especially during times of fiscal constraint. Comparative
analysis, budgeting theory, simulations and case studies inform this seminar.
Prerequisite: POL214Y

## POL424YI Modes of Political Inquiry 52S

An examination of the competing conceptions of knowledge,
"quantitative" and "qualitative," that have shaped the academic study of politics. Methodology from a philosophical standpoint. Topics discussed include objectivity, values, value freedom, scientific explanation, behaviouralism, historicism, interpretation, social constructivism, critical theory, and rational choice.
Readings from Mill, Weber, Popper, Strauss, Kuhn, Habermas, Gadamer, and Taylor. Directed especially to 4th year students considering graduate studies in political science.
Prerequisite:Two courses in POL

## POL425YI Multiculturalism in Canada

An examination of the basic ideas underlying Canada's multicultural policies, especially as explained by Pierre Elliott Trudeau, and some interpretations of Canadian practice by political theorists, especially Charles Taylor and Will Kymlicka. Exclusion: POL425H
Prerequisite: POL3IIY/320Y
POL427YI The Spirit of Democratic 52S Citizenship
This course examines the theoretical presuppositions orienting the construction of the behaviour and skills of democratic citizenship; simultaneously, students consider what is involved.
The course consists of three parts: No One Truth, Evoking the
Other, and the Spirit of Equality.
Exclusion: POL427H

## Prerequisite: POLIO3Y/I08Y/200Y

POL428HI Politics in Southeast Asia
Comparative analysis of states and societies in Southeast Asia. Particular focus on democracy, authoritarianism and communism in the region; nationalism, ethnic identity and politics; civil society and economic development.
Exclusion: POL428Y
Prerequisite: POL20IY/2I5Y; minimum 9 FCEs

## POL429YI Nationalism, Ethnic Conflict 52S

 and DemocracyThe main theories of ethnic conflict, ethnic violence and nationalism. Focus on the challenges of multiethnic diversity and nationalism for democracy. Origins of nations; construction of ethnic identities; nationalism in the 21 st century; causes of ethnic conflict, ethnic riots, and ethnic violence; democracy and ethnic diversity; multination states and democracy.
Exclusion: POL429H
Prerequisite:A course in POL; minimum 14 FCEs

## POL430YI Comparative Studies in Jewish $52 S$

and Non-Jewish Political Thought
A comparative examination of major texts of the Jewish tradition, ranging from the Torah to modernity, and texts of the classical or Western traditions raising similar questions. Close reading of a small number of capital works, with special attention to the problem of reason and revelation.
Prerequisite: POL200Y, $320 \mathrm{Y} / 323 \mathrm{H} / 323 \mathrm{Y} / 330 \mathrm{H} / 330 \mathrm{Y} /$ a relevant course in Jewish studies

## POL43IYI Politics and Society in Contemporary China

Issues and themes in China's modernization effort with emphasis on 20th century social, political and economic developments.

Exclusion: POL43IH
Prerequisite: JMC 30IY/POL2I5Y/EASI02Y/HIS280Y/328Y/ permission of the instructor

## POL432HI Feminist Theory: Challenges to

 Legal and Political ThoughtFeminist theory offers basic challenges to the foundations of modern political and legal thought. It suggests a different conception of human nature and a different model of epistemology and of appropriate forms of argument about the traditional issues of legal and political theory: justice, power, equality and freedom. Introduction to the foundations of feminist theory, an analysis of its implications for traditional liberal theory, and an application of feminist theory to law. Exclusion: POL432Y
Prerequisite: JPP343Y/POL320Y

## POL433YI Topics in United States

## Government and Politics

The objective of the seminar is to investigate the ways in which race, ethnicity, and culture have influenced American politics. Areas and issues including the party system, public policy, the evolution of the Constitution, the definition and negotiation of gender roles and identities, the labour movement, and popular culture, are examined.
Exclusion: POL433H
Prerequisite: A course in POL
Recommended preparation: POL242Y, or a similar course in statistical research methods, or a class in microeconomics or permission of the instructor.
POL434YI Enlightenment and its Critics $52 S$
This course explores, through the writings of its foremost advocates and adversaries, the Enlightenment, the movement to found political life on the principles of scientific reason, universally applicable and accessible to human beings. Exclusion: POL434H
Prerequisite: POL320Y/330H/330Y

## JHP435YI Linguistic and Cultural Minorities in Europe

Examines status of minority peoples in Europe, using specific case studies to compare similarities and differences in how these minorities function in states with differing political systems and ideologies. The evolution of specific minorities focuses on questions of language, religion, historical ideology, legal status, assimilation, and political goals. (Given by the Departments of History and Political Science) Prerequisite: POLIO3Y/3I2Y/a course in European history

## POL435HI Political Economy of Asia Pacific 26S

The course addresses questions regarding the cultural and organizational precedents for and against modern capitalist enterprise in East and Southeast Asia. Special effort given to tracing uneven geographical, gender and class participation in market growth and to the moral and political arguments that have been provoked regarding the consequences of the Asian
"economic miracle" and its recent financial crisis.
Exclusion: POL435Y
Prerequisite: POL2I5Y
POL436YI Problems of Political Community 52 S
Explores a range of questions about political community in the modern world with attention to the relationship between claims about what political communities ought to be and empirical evidence of actual political arrangements. Focus varies from year to year.
Prerequisite: POL200Y/320Y

POL438HI/YI Topics in Comparative Politics I 26S/52S
Selected issues in comparative politics. Varies from year to year. Prerequisite: Two courses in comparative politics/permission of instructor

## JPD439YI Post-Modern and Contemporary 52 S

 ThoughtThe development of post-modern thought, particularly in French social philosophy is examined. Topics such as the nature of exchange, the impact of technology, virtual reality, the digital class are explored. Authors include Jean Baudrillard, Paul Virilio, Gilles Deleuze, Arthur Kroker, Fracois Lyotard.
Recommended preparation: POL200Y

## POL439HI The Canadian Welfare State <br> \section*{in Comparative Perspective}

This course examines the politics of contemporary social policy in Canada. Particular attention is given to health services, day care, public pensions, income support for the poor and labour market policy. Recent developments are assessed in their historical context and in relation to insights offered by the comparative political economy literature.
Prerequisite: POLI03Y/2I4Y

## JHP440YI Gender \& International

Relations (formerly HIS440HI)
The seminar explores the use of gender as a category of analysis in the study of international relations. Topics include gendered imagery and language in foreign policymaking; beliefs about women's relationship to war and peace; issues of gender, sexuality, and the military; and contributions of feminist theory to international relations theory. (Given by the Departments of History and Political Science)
Exclusion: HIS440H
Prerequisite: HISI03Y/245Y/377Y/POL208Y/permission of instructor
POL440YI The Politics of Transition in 52S Eastern Europe
Comparative analysis of the former Communist states of
Eastern Europe and the post-Communist successor states.
This course also focuses on the dilemmas of transition and the problems of democratic consolidation in the region.

## Prerequisite: POL204Y/208Y

## POL44IHI Topics in Asian Politics 26S

Selected issues in Asian politics. Content in any given year depends on instructor.
Prerequisite: POL20IY; minimum 14 FCEs
POL442HI Topics in Latin American Politics 26S
This seminar starts with a brief consideration of democratic transitions in Latin America in the last 25 years. It then concentrates on the prospects and challenges of democratic consolidation in the region, while exploring the capacity/ potential of institutional reform to address the fault-lines of democracy.
Exclusion: POL442Y
Prerequisite: POL20IY \& 305Y; minimum 14 FCEs

## POL443HI/YI Topics in Comparative 26S/52S Politics II

Selected issues in comparative politics. Varies from year to year.
Prerequisite:Two POL courses in comparative politics or permission of the instructor

## Political Science

## POL444YI The Political Theory of G.W.F. Hegel

An examination of the Phenomenology of Spirit and the Philosophy of Right.
Prerequisite: POL320Y
POL446YI 20th-Century Political Thought 52S
An examination of the fundamental principles and dynamics of 20th century political ideologies, focusing on the formation of various types of totalitarianism and authoritarian individualism. Prerequisite: POL200Y/320Y/a course in PHL

## POL447YI Political Economy of Development

52S
This course explores the rise, evolution, and performance of the dominant neoliberal approach to development and poverty reduction. It also assesses the feasibility and efficacy of alternative development strategies. Case studies are drawn from Latin America, Asia, and Africa.
Exclusion: JPE400H/Y
Prerequisite: POL20IY/2I5Y/30IY/305Y; minimum 14 FCEs Recommended preparation: Introductory economics is helpful

## POL448HI Law, Religion and Public Discourse 26S

One of the central purposes of the course will be to envision ways in which religious and spiritual beliefs could become respectable dimensions of legal, political, and academic discourse while sustaining a deep respect for pluralism and attending to the dangers that require the separation of church and state. Prerequisite: POL320Y or permission of the instructor

## POL449HI Qualitative Methods in Political Research

This course surveys qualitative methods used in political science research. After briefly reviewing positivist and interpretivist research traditions, the course covers the ideal-typical and practical use of specific qualitative methods such as fieldwork, interviewing, archival research, focus group research, participant observation, ethnography, counterfactuals, discourse analysis, and multiple-methods approaches.
Prerequisite: POL242Y; permission of instructor

## POL450HI Women and Politics

This course addresses the large and growing comparative literature in two main areas: women's political attitudes and participation. Focusing on West European and U.S. materials, the first half examines "gender gap" differences between women's and men's political beliefs, while the second assesses patterns of involvement in political institutions.

## Exclusion: POL450Y

Prerequisite: POL3I5H/3I5Y/344Y/JPP343Y/permission of the instructor
Recommended preparation: At least one course in both political behaviour and women's studies

## POL452YI Multilevel Politics:The European 52S

 Union in Comparative PerspectiveWhat is multilevel governance? Sources, structure, actors, processes, challenges. Focus on organizing redistributive policies, participation and accountability. The European Union compared with federal and semi-federal systems (e.g. Canada, U.S.A.,
Germany) and the European Union compared with regional and global regimes (NAFTA,WTO...).
Prerequisite: POL207Y/324Y/two FCEs in POL
Recommended preparation: Introductory textbook on European integration

POL453YI The Politics of Post-Communism
By intensively analyzing the theoretical literature on postcommunism we explore the determinants of political and economic change. How did the 28 post-communist countries, having started from basically the same point, end up politically and economically so different?
Prerequisite: POL207Y/324Y/354Y/HIS344Y/353Y/a course in Soviet, post-Soviet or European politics
JHP454YI Twentieth Century Ukraine
World War I and the Russian Revolution: the Ukrainian independence movement; the Soviet Ukraine and west Ukrainian lands during the interwar period; World War II and the German occupation; the Soviet Ukraine before and after the death of Stalin. Socio-economic, cultural, and political developments. (Given by the Departments of History and Political Science) (Offered every three years)
Prerequisite:A course in Modern European, East European, or
Russian history or politics

## JPF455YI Cities 52L/S

Examines disciplinary and developmental boundaries relating to cities. By bringing together a cross-disciplinary faculty who focus on cities within Political Science, History, Philosophy, Literature, Design, Environment and Health, Geography or Social Work, the course explores inter-disciplinary city issues: global change; environment; economic adjustment; state reform and city politics; citizenship; community development; economic development; physical form, territory and political-economy of cities. (Given by the Departments of Literature, Philosophy, Political Science, Urban Studies, Faculty of Social Work and Faculty of Architecture, Landscape and Design)
Prerequisite: Minimum 14 FCEs/permission of instructor
POL458HI The Political Economy of 26S International Trade
The course explains why countries trade by looking at historical and contemporary trends in international trade. The course places particular emphasis on the interaction between political and economic processes in advancing trade. An important theme throughout the course is how the distribution of gains is connected to system stability.
Exclusion: POLC95H3 (UTSC)
Prerequisite: ECOIO0Y and POL208Y and HIS344Y or permission of instructor
POL459YI The Military Instrument of 52S Foreign Policy
The relationship of military force to politics: Nuclear war and deterrence, conventional war, revolutionary war, terrorism and counter-insurgency are examined from the perspectives of the U.S., Russia and other contemporary military powers. Prerequisite: POL208Y

## JUP460HI/YI Contemporary Issues in Peace 26S/52S and Conflict

A colloquium (fall term) and research seminar (spring term, JUP460Y only) on security ontology and various meanings of security. Topics to be considered include planetary, ecospheric, state, societal, and human security. (Offered by the Department of Political Science and University College)
Exclusion: Students are not allowed to take both H and Y courses
Prerequisite: POL208Y and UNI360Y/permission of the instructor

## Political Science

POL460HI Studies in Modern Political Theory 26S
Studies on a modern political thinker or thinkers since Machiavelli.
Exclusion: POL460Y
Prerequisite: POL320Y/323H/323Y/330H/330Y

## POL462YI Comparative Political Parties and Elections

Political parties and party systems in Canada, United States and selected European countries. Electoral systems, problems of representation, voting and elections and processes of political change in western democracies.
Exclusion: POL462H

## Prerequisite: POLI03Y/207Y/356Y

## POL463YI The Political Philosophy of

Political Economy
Lectures relate economic organization to philosophical interpretations of community and citizenship. Philosophers include Plato, Aristotle, Calvin, Smith, Kant, Hegel, Marx, Habermas, Rawls and Hayek. Seminars interpret critical moments of 20th century economic history from the standpoint of philosophy. Does philosophy clarify or obscure the meaning of economic history?
Exclusion: POL478Y5
Prerequisite: POL320Y/ECO302Y/ECO342Y
Recommended preparation: POL320Y/a course in 20th century economic history
POL464HI G8 and Global Governance I
In the post-cold war, globalizing international system, the institutions of the G8 are emerging as an effective centre of global governance. Alternative conceptions of global governance and theories of international cooperation are used to explain G8 performance. National approaches to G8 diplomacy are assessed.
Prerequisite: POLI08Y/208Y
Recommended preparation: POL3I2Y/324Y/326Y/34IH/342H/ 342Y/343Y

POL465HI G8 and Global Governance II 26S
The performance of the G8 and other international institutions in securing cooperation and compliance, and shaping international order in major contemporary issues of political economy (finance, trade, employment, development), security (arms control, regional security, democracy and human rights) and transnational global issues (environmental protection, drugs, crime, infectious disease).
Prerequisite: POLI08Y/208Y
Recommended preparation: POL3I2Y/324Y/326Y/34IH/342H/ 342Y/343Y

POL466HI Topics in International Politics III 26S
For advanced students of international relations. Various topics are taken up each year, the content of which depends on the instructor.
Prerequisite: POL208Y
POL468HI Conflict and Conflict Management
This seminar examines the source of conflict and various methods of conflict management. It focuses on organized conflict, and the manner in which such conflicts appear in character or scope in the contemporary international system. Prerequisite: Minimum 14 FCEs
Recommended preparation: POL208Y

POL469HI Ethics and International Relations 26S
The course aims to explore the requirements of justice and fairness in international affairs. It is common to theorize international relations in terms of interests and power. But even the most cursory look at what important actors actually do in their international interactions reveals that they use normative language all the time. This has not gone unnoticed, with investigations of ethics in the international arena multiplying in recent years. Drawing on readings from political philosophy, legal theory, and normative international relations theory, the course will take up practical ethical dilemmas encountered in world affairs. The main focus of the course will be on institutions. Examples will be drawn from the issue areas of trade, health, and the environment, among others.
Prerequisite: POL208Y

## POL470YI Contemporary Issues in Foreign Policy

This senior seminar involves a critical assessment of current foreign policy issues and contemporary world problems. Issues and case studies to be analyzed include: I. International military interventions to respond to imminent threats or humanitarian crises, issues of legitimacy and effectiveness. e.g., Iraq, Afghanistan, Kosovo, Haiti. 2. Canada-US relations in international crisis management, the track record and the way ahead. 3. Globalization, international terrorism, and their effects on sovereignty, diplomacy and international institutions.
Prerequisite: POL208Y
JPJ47IHI Constitutional Politics 26S
Explores fundamental issues in the design and amendment of constitutions, with particular reference to divided societies such as Canada, Belgium, Spain and South Africa. Includes both the processes and outcomes of constitutional politics, and their implications for conflict management, democracy, and effective governance. (Given by the Faculty of Law and the Department of Political Science)
Exclusion: POL47IH
Prerequisite:Two 200+ courses in comparative or Canadian politics
POL47IHI The Political Thought of 26S George Grant
George Grant's political, philosophical, and religious thought as found in his six short books and some supplementary readings. Liberalism, modernity, and technology from the stand point of political philosophy and Christian revelation.
Recommended Preparation: POL 200Y and 320Y
Prerequisite: POL 200Y/320Y
POL472HI The Comparative Political 26S Economy of Industrial Societies
Topics discussed in this seminar course will include the historical origins of advanced capitalist political economies, the 'Varieties of Capitalism' debate, current trajectories of different political economies, labour politics and regulation, the politics of macro-economic policy, the political economy of growth, and Canada's political economy.
Prerequisite: POL I03Y/I08Y/207Y
POL474HI Politics and Policy Analysis 26S
Major theories of public policy-making and related approaches to policy analysis are examined from the perspective of political science. Key contributions to the theoretical literature pertaining to leading models are read and discussed. Models of

## Political Science

public policy-making are successively applied to analysis of cases of Canadian and comparative policy development.
Prerequisite: POLI03Y/2I4Y/3I7Y/352H
POL475HI Experiencing Public Policy-Making 26S
Examines how policies are developed and implemented, and seeks to improve students' analytic, writing and presentational skills. Through readings and role-playing sessions, exposes students to key challenges confronting policy-makers: preparing for government transitions, undertaking environmental scanning and scenario planning, evaluating alternative instruments for delivery programs, establishing consultation processes, restructuring government bureaucracies, and ensuring accountability.
Prerequisite: POLI03Y/2I4Y; one POL 300-level course in Canadian politics

## POL476HI The Developmental State: Comparative and Historical Perspectives

This seminar course explores the concept of the developmental state both comparatively and historically. In the postwar period, the East Asian 'tigers' economically developed rapidly, leading
many to suggest that there is a distinctive Asian model of stateled development. This course questions this assertion. The first section unpacks the East Asian developmental state model.The rest of the course explores this model in other comparative and historical contexts. Students will read the 'classics' in political economy, examining the role of the state in economic transformation in 17th C. Netherlands, the English Industrial Revolution, 19th C Russia and Germany, turn of the century America and the East Asian tigers.
Prerequisite: POL20IY/208Y; minimum 14 FCEs

## POL477HI Advanced Topics in International Political Economy

This course is designed for advanced students with serious interests in the subfield of international political economy Specific topics covered will vary, but all involve the deep interplay between politics and economics in the contemporary world.
Exclusion: POL454Y
Prerequisite: POL208Y; ECOI00Y

## POL479HI Topics in Middle East Politics

This course examines the contemporary politics of the Middle East and North Africa. It seeks to examine the relative importance of political, socio-economic and ideological factors in the context of such issues as the resilience of authoritarism, the rise of civil society, and the resurgence of Islamic activism.
Theoretical discussion is followed by case studies.
Prerequisite: POL20IY/NMC2I7Y; minimum 14 FCEs
POL480HI Pluralism, Justice, and Equality
Historically, liberalism has coped with the fact of social difference through doctrines of colour - or difference blindness. Recent feminist and other critics of liberalism have argued that liberal conceptions of justice and impartiality fail to treat members of marginalized groups as equals. This course explores both sides of these debates.
Exclusion: POL480Y
Prerequisite: POL200Y/320Y/JPP343Y

POL484HI/YI Topics in Political Thought I 26S/52S
A seminar on a central problem in political thought. It proceeds through the reading of a small number of major texts. Content in any given year depends on instructor.
Prerequisite: POL320Y/permission of instructor
POL485HI/YI Topics in Political Thought II 26S/52S
A seminar on a central problem in political thought. It proceeds through the reading of a small number of major texts. Content in any given year depends on instructor.
Prerequisite: POL320Y/permission of instructor
POL486HI/YI Topics in International Politics I 26S/52S
For advanced students of international relations. Various topics are taken up each year, the content of which depends on the instructor.

## Prerequisite: POL208Y

POL487HI/YI Topics in International Politics II 26S/52S
For advanced students of international relations. Various topics are taken up each year, the content of which depends on the instructor.
Prerequisite: POL208Y
POL488HI/YI Topics in African Politics I 26S/52S
In depth examination of specific themes relating to contemporary African politics. Content in any given year depends on instructor.
Prerequisite: HIS395Y/POL20IY/30IY; minimum 14 FCEs

## POL489HI/YI Topics in African Politics II <br> 26S/52S

In depth examination of specific themes relating to contemporary African politics. Content in any given year depends on instructor.
Prerequisite: HIS395Y/POL20IY/30IY; minimum 14 FCEs
POL490HI/YI Topics in Canadian Politics I 26S/52S
Examines in depth enduring and emerging issues in Canadian politics. Content in any given year depends on instructor.
Prerequisite: POLIO3Y/2I4Y, one other POL course in Canadian politics or permission of instructor
POL49IHI/YI Topics in Canadian Politics II 26S/52S
Examines in depth enduring and emerging issues in Canadian politics. Content in any given year depends on instructor.
Prerequisite: POLI03Y/2I4Y, one other POL course in Canadian politics or permission of instructor

## POL492HI/YI Topics in Comparative 26S/52S Politics IV

Selected issues in comparative politics. Varies from year to year.
Prerequisite:Two POL courses in comparative politics or permission of the instructor
JPJ494HI Innovation and Knowledge 26S
This course surveys two of the key themes related to the process of innovation in a knowledge-based economy: the process by which new knowledge is generated and effectively transferred to those organizations with the potential to commercialize it; and secondly, the paradoxical relationship between knowledge creation and proximity in a modern global economy. (Offered in alternate years)
Exclusion: LAW 453HS
Prerequisite: CSC300H/ECO360Y/GGR43IH/202H/HPS43IH/ POL2I8Y5/ a 300 or 400 level course in comparative politics (industrial countries)/POL409H/SOC356Y

POL495YI Independent Studies TBA
Open only when a Political Science full-time faculty member is willing and available to supervise. Students must find an appropriate supervisor in the Department of Political Science and obtain the approval of the Director of Undergraduate Studies before enrolling. Obtain details and an application form from the Department Undergraduate Office.
Exclusion: POL496H/497H

## POL496HI/ Independent Studies

 497HIOpen only when a Political Science full-time faculty member is willing and available to supervise. Students must find an appropriate supervisor in the Department of Political Science and obtain the approval of the Director of Undergraduate Studies before enrolling. Obtain details and an application form from the Department Undergraduate Office.
Exclusion: POL495Y

## POL498HI/YI Intensive Course

 TBAContent in any given year depends on instructor. Intensive courses are offered by distinguished visitors from around the world. Students in their $4^{\text {th }}$ year are strongly encouraged to take advantage of this unique opportunity to study with one or more outstanding visiting international scholars that the Department brings from time to time. The intensive course usually runs for approximately $3-4$ weeks.

## POL499YI Senior Thesis and Thesis Seminar TBA

 A 40 to 60 page ( 15,000 to 20,000 word) research paper ( $75 \%$ of final mark) written under the supervision of one faculty member and a companion thesis seminar ( $25 \%$ of final mark). The seminar provides a forum for students to periodically present and discuss their on-going research and to examine issues and approaches related to the structure, organization and presentation of the thesis.Exclusion: POL 495/496/497 (taken in the same year)
Prerequisite: 4th year status in Specialist or Joint Specialist programs in Political Science; 3.0 GPA in Political Science courses; supervisor's approval; an approved thesis proposal.

## Given by Members of the Department of Spanish and Portuguese

## Faculty

## Professors Emeriti

J.R.Webster, MA, Ph D, FRSC

Associate Professor and Chair of the Department
S.J. Rupp, MA, M Phil, Ph D (V)

## Professor

R. Sternberg, MA, Ph D (SM)

Associate Professor
J.Blackmore, MA, Ph D (V)

## Senior Lecturer and Associate Chair

 M. Marujo, MA, Ph D
## Lecturer

J.Pedro Ferreira*
*Visiting
Portuguese is spoken by more than one hundred and seventy million people on four continents: Europe, Africa, Asia, and America. Twenty percent of all residents of the Western Hemisphere are Brazilians, who attest to the truth that one out of every five Americans - North, Central, South - speaks Portuguese as his or her native language.

The literature of Portugal has a tradition that goes back as far as the twelfth century, and the country's discoveries in the Renaissance led it to all corners of the globe. In the last two decades Portugal has given to Canada many thousands of new citizens, and Brazil is attracting the attention of Canadians through its vast potential as a land of culture, of natural resources, and of industry.

In addition to a full range of courses in language, Portuguese studies at the University of Toronto are concerned with the major trends and issues of Luso-Brazilian literature and culture and serve the programs in Latin-American Studies, European Studies and in African Studies.

The Department encourages students to consider completing part of their course work at a university in Portugal or Brazil.
Undergraduate Coordinator: Professor R. Sarabia (416-8|34082). E-mail: spanport.undergraduate@utoronto.ca

Enquiries:Victoria College, Room 208 (4|6-813-4080)

## Portuguese Programs

Enrolment in the Portuguese programs requires the completion of four degree courses; no minimum GPA required.

## Portuguese (Arts program)

Consult Professor R. Sarabia, Department of Spanish and Portuguese.

## Specialist program:

(9 full courses or their equivalent, including at least one 400series course)
First Year:
PRT IOOYI/IIOYI/220YI
Second Year:
I. PRT $220 \mathrm{Y} / / 320 \mathrm{Y}$ I
2. PRT 258 HI

Third and Fourth Years:
I. PRT 320YI
2. At least one of PRT $420 \mathrm{YI}, 423 \mathrm{Y}$ I
3. Plus additional PRT courses to make nine courses. Up to two full-course equivalents may be taken from cognate departmental or college offerings: GGR, HIS, LAS, POL, SPA.A complete list of eligible courses is available from the Undergraduate Coordinator.
Major program:
(7 full courses or their equivalent)
First Year:
PRT IOOYI/IIOYI/220YI
Second Year:
I. PRT 220YI/320YI
2. PRT 258 HI

Third and Fourth Years:
I. PRT 320YI
2. At least one of PRT $420 \mathrm{YI}, 423 \mathrm{YI}$ is recommended for students who start in PRT 100YI.At least one of PRT $420 \mathrm{YI}, 423 \mathrm{YI}$ is required for students who start in PRT 220 YI or higher language course.
3. Plus additional PRT courses to make seven courses. Up to one full-course equivalent may be taken from cognate departmental or college offerings: GGR, HIS, LAS, POL, SPA.A complete list of eligible courses is available form the Undergraduate Coordinator.
Minor program:
4 full courses or their equivalent including at least one course at the 300+ level.

Portuguese: see also European Studies; Latin American Studies; Modern Languages and Literatures: Linguistics and Languages

## Portuguese Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), PRT courses are classified as HUMANITIES courses.

HUM 199YI First Year Seminar $52 S$
Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly
admitted first year students. It may serve as a distribution requirement course; see page 47.

## Note

The Department reserves the right to place students in the language course best suited to their linguistic preparation.

## PRTIOOYI Beginners Portuguese 52L, 26P

An introduction to the main elements of the language with emphasis on oral and written practice. (May not be taken by students who, in the judgement of the Department, qualify for entry into PRTIIOYI)
Exclusion: OAC Portuguese or equivalent
PRTIIOYI Elementary Portuguese 52L, 26P
An introduction to Portuguese for students who speak or understand Portuguese but have not formally studied it. (May not be taken by students who, in the judgement of the Department, qualify for entry into PRT220YI)
Exclusion: OAC Portuguese or equivalent Prerequisite: A familiarity with Portuguese

## PRT2I7HI Language Practice

Communication practice in small groups, with an emphasis on skills in speaking, listening, and reading. Selective review of grammatical structures and active vocabulary, with readings from Portuguese authors.

Prerequisite: PRTI00Y/IIOY or permission of the Department
PRT220YI Intermediate Portuguese 52L
Students enlarge their vocabulary and improve their oral and writing skills through reading, composition and translation. Prerequisite: OAC Portuguese or equivalent/PRTIOOYI/IIOYI
PRT250HI Portuguese Culture \& Civilization 26L A survey of historical and cultural trends in Portugal from the Middle Ages to the present. Art and music are studied in addition to historical/cultural movements to gain a perspective of the uniqueness of Portugal both within Iberia and in Europe in general. (Offered in alternate years)

## PRT252HI Portuguese Island Culture 26L

Study of Portuguese literature, art, and culture in the context of colonization and immigration, with a specific emphasis on the islands of the Portuguese Atlantic. Readings in the cultural heritage of island settlements, and in diasporic movements to other countries. (Offered in alternate years)

## PRT255HI The Brazilian Puzzle: Culture and Identity

Taught in English, this course examines the historical and cultural contexts of Brazilian identity. The impact of colonial history on issues such as race, religion and regionalism is explored. The course focuses on the 19th and 20th Centuries: Positivism, Modernism, the Anthropophagous Movement, music and Cinema Novo are discussed. (Offered in alternate years)

## PRT258HI

Introduction to Luso-Brazilian<br>Studies<br>(formerly PRT258YI)

The introductory study of literary texts and consideration of the various ways authors express and situate themselves in culture. Semiotics, gender, the literary canon, advertising, the nature of literary language, and cinema.
Exclusion: PRT258YI
Co-requisite: PRT220YI

## PRT299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.
PRT320YI Composition and Oral Practice 52L Intensive practice in written and oral Portuguese for the advanced student. Reading and discussion of contemporary literature.
Prerequisite: PRT220Y।

| PRT342HI | Machado de Assis:The Creation of 26L <br> the Modern Self <br> (formerly PRT455YI) |
| :--- | :--- |

Beginning with Memorias Postumas de Bras Cubas, Machado de Assis developed the art of creating characters who prefigure the 20th century self: contradictory, often delusional. His novels destroy whatever certainties the late 19th century offered. The course examines the transformation of Machado through readings of his novels. (Readings in English)
Exclusion: PRT 455YI

## PRT35IHI Discovery and Conquest: Literature and Nationhood (formerly PRT35IYI)

A study of the driving ideologies behind the "Age of Discoveries." Close scrutiny of key texts reveals how the ideas of displacement, sex, violence, gender, and colonization play crucial roles in the establishment and maintenance of nationhood and nationality in Renaissance Portugal. (Offered in alternate years)
Exclusion: PRT35IYI
Prerequisite: PRT2IOYI/220YI, 258HI
PRT355HI Topics in Brazilian Studies 26L
In years when this course is offered, topics are described in the departmental brochure.
Prerequisite: PRT258HI

| PRT357HI | Modern and Contemporary <br> Brazilian Literature <br> (formerly PRT457YI) |  |
| :--- | :--- | :--- |

Focus on modern and contemporary Brazilian literature and its social contexts, and examination of the relationship between literary movements and Brazilian cinema, music and art.
(Offered in alternate years)
Exclusion: PRT457YI
Prerequisite: PRT220YI, 258HI
PRT358HI Topics in Portuguese Studies 26L
In years when this course is offered, topics are described in detail in the departmental brochure.
Prerequisite: PRT220YI, 258HI

## Portuguese

## PRT359HI From Pessoa to Saramago (formerly PRT456YI)

An examination of Portuguese literature as it confronts the changing social, political, and aesthetic currents of the twentieth century. The Orpheu movement of Fernando and Sa-Carneiro, Presenca and Neo-Realism as well as contemporary authors such as Lydia Jorge and Jose Saramago are studied. (Offered in alternate years)
Exclusion: PRT456YI
Prerequisite: PRT220YI, 258HI
PRT365HI The Rise of Modern Identity 52L
Studies Portuguese and Brazilian Romanticism tracing the development of a new sense of personal and national identity in those countries as reflected in novels, poems and essays.
(Offered in alternate years)
Prerequisite: PRT258H or permission of instructor
PRT398H0/ Independent Experiential Study Project 399Y0
An instructor-supervised group project in an off-campus setting. See page 47 for details.

## PRT420YI Advanced Portuguese 52L

A study of the more advanced areas of Portuguese grammar and language use. Discussion of issues relating to syntax, vocabulary and style as they arise in essays and readings of literary texts. The expressive resources of the language. Introduction to the stylistic analysis of literary texts. Intensive written and oral practice. (Offered in alternate years) Prerequisite: PRT320YI

## PRT423YI Translation 52L

The syntax and expressive resources of Portuguese and English. Written and oral translation of literary, technical and commercial texts. (Offered in alternate years)
Prerequisite: PRT320YI

## PRT442H Eça de Queiroz: Portugal in 26L

 the CrosshairsWhether writing about the adulterous and incestuous relationship between cousins, or the downfall of a great family, or later the transformation of a Parisian dandy into a robust Portuguese countryman, Eça had one great subject: Portugal. The course examines the shifting perspective of the country through close readings of novels.
Prerequisite: PRT 220YI, PRT 258HI
Exclusion: PRT 356 YI and PRT455YI

## PRT452HI Camões (formerly PRT352H)

A study of the works of Camões, including the entirety of Os Lusíadas, and a substantial portion of the lyrics and theatre.
(Offered in alternate years)
Exclusion: PRT352H
Prerequisite: PRT220YI, 258HI
PRT454YI The Luso-Brazilian Novel 52L
Fiction in Portugal and Brazil from the 19th century to the present. Naturalism, realism, the experimental novels of the 1920's, the novel of social protest. (Offered in alternate years) Prerequisite: PRT220YI, 258HI

PRT458HI The Luso-Brazilian Short Story 26 S
The development of the Luso-Brazilian short story. Examination of theories of the genre as they relate to short stories of Machado de Assis, Eça de Queiroz, Graciliano Ramos, João Guimareaes Rosa, Clarice Lispector and Miguel Torga. (Offered in alternate years)
Prerequisite: PRT220YI, 258HI
PRT490HI Independent Study TBA
Individual study with a member of staff on a topic of common interest including readings, discussion and written assignments. Prerequisite: PRT320YI and written approval of the Undergraduate Coordinator

## Psychology: see Life Sciences: Psychology

## Faculty

Professors Emeriti
A.T. Davies, BA, BD, STM, Ph D (V)
L.S. Dewart, MA, Ph D (SM)
C.T. McIntire, MA, M Div, Ph D (V)
H.J. McSorley, MA, D Th (SM)
J.E. McWilliam, MA, Ph D (T)
G.A. Nicholson, MA, Ph D (T)
J.T. O'Connell, AB, Ph D (SM)
G.P. Richardson, B Arch, BD, Ph D, FRSC, FRAIC (U)
R.M. Savory, MA, Ph D, FRSC (T)
J.M.Vertin, MA, STL, Ph D (SM)
G.A.B.Watson, MA, STB (T)

Associate Professor and Chair of the
Department
JJ. DiCenso, MA, Ph D (T)
Professor and Associate Chair
J.S. Kloppenborg, MA, Ph D (T)

Professors
D. Novak, MHL, Ph D (U)
L.E. Schmidt, MA, Ph D (SM)
R.E. Sinkewicz, AM, M Div, D Phil (CMS)

## Associate Professors

J. Bryant, MA, Ph D (SM)
H. Fox, MS, MA, Ph D (U)
G. Gillison, $\mathrm{Ph} \mathrm{D}(\mathrm{T})$
K. H. Green, MA, Ph D (U)
P. Klassen, MA, Ph D (V)
J. Newman, MAR, PhD (V)
S. Scharper, MA, Ph D (UTM)

Assistant Professors
J.Ahn, MA
A. Dhand MA, Ph D (V)
C. Emmrich, MA, Ph D (UTM)
F. Garrett MA, PhD
A. Goodman, MA
J. Marshall, MA, Ph D (U)
A. Mittermaier, PhD
A. Rao, MA, Ph D (UTM)
W. Saleh, MA, Ph D
S. Virani, MA, Ph D (UTM)

As an intellectual inquiry into an important dimension of human experience, the exploration of religion is intrinsically valuable and constitutes a rich resource for reflection on meaning in life and on personal growth. It also prepares students for a wide range of careers (e.g. social work, law, politics from the local to the international level, teaching, medicine, leadership in religious organizations). The academic study of religion, combined with appropriate language preparation, can also open out into graduate work leading to the M.A. and Ph.D. in the growing number of universities offering advanced graduate degrees in the field, and in the University's own Graduate Centre.

Historically, the academic study of religion has taken a variety of forms, each with its own rationale. The Department identifies itself with a model in which the major religious traditions (e.g.

Buddhism, Christianity, Hinduism, Islam, Judaism) are studied within a comparative frame. We employ and encourage a variety of approaches (e.g. historical, textual, social scientific) without sacrificing specialized skills and training. The diversity which characterizes this model is reflected in the variety of courses offered or cross-listed by the Department, and by the wide range of training and expertise of our faculty.

Programs are described in detail in the Departmental Handbook; it also includes a limited number of cross-listed courses offered by Colleges or departments such as East Asian Studies, History, Near and Middle Eastern Civilizations, Philosophy, and Sociology. Students aiming to complete any RLG program should consult the Undergraduate Administrator at least once a year for assistance in selecting courses that address the student's interests and fulfill the program's requirements.

Undergraduate Administrator: 123 St. George Street, 2nd Floor (416-978-2395)

Enquiries: I23 St. George Street, Ist Floor (4I6-978-2395)

## Religion Programs

Enrolment in Religion programs requires completion of four courses; no minimum GPA required.

## Religion(Arts program)

## Specialist program:

(IO full courses or their equivalent)
I. RLG $100 Y \mathrm{Y} / 280 \mathrm{Y}$ I
2. RLG $200 \mathrm{YI} / 210 Y \mathrm{I} / 2 \mathrm{IIYI} / 2 \mathrm{I} 2 \mathrm{YI} / \mathrm{SOC} 250 \mathrm{Y} \mathrm{I}$
3. Four $300+$ series courses, including at least one at the 400level
4. Four other courses
5. Course selection must ensure that more than one religious tradition is studied (RLGIOOYI/280YI does not fulfill this requirement); it must also ensure depth of study and focus in one area or stream of specialization
6. Two cross-listed courses may be counted (consult the Departmental Handbook for a list of eligible courses)
7. Besides any cross-listed courses, two courses in a single language other than English may be substituted for one 200-series RLG course
Major program:
(6 full courses or their equivalent)
I. RLG IOOYI/280YI
2. One course from: RLG $200 \mathrm{YI}-209 \mathrm{HI}, 242 \mathrm{H} 5,272 \mathrm{H} 5$, 273 H 5 or $274 \mathrm{HI}-275 \mathrm{HI}$
3. Two full 300+ series courses
4. Two other courses
5. One cross-listed course may be counted (consult the Departmental Handbook for a list of eligible courses)

## Minor program:

(4 full courses or their equivalent)
I. RLG I00YI/200YI/280YI
2. One $300+$ series RLG course
3. Two other courses
4. No cross-listed courses may be counted

## Religion

## Religion: Christian Origins (Arts program)

Consult John Kloppenborg, Department for the Study of Religion

## Specialist program:

(II full courses or their equivalent with four courses at the $300+$ level, including one course at the 400 -level)

RLG I00YI/280YI
RLG 24IYI
RLG203YI/RLG33IYI
4. Two full courses in Greek, normally fulfilled by GRK IOOYI or GRK $102 \mathrm{HI}+200 \mathrm{HI}$, and GRK 20 IHI and GRK 202 HI , (Note: Upon approval of the program coordinator, students may be permitted to substitute for these courses two full courses in another ancient language, e.g., Coptic, Syriac, Aramaic.)
5. Six $300+$ half-courses (at least one must be from the 400level) chosen from RLG $319 \mathrm{HI}, 320 \mathrm{HI}, 32 \mathrm{IHI}, 322 \mathrm{HI}$, $323 \mathrm{HI}, 324 \mathrm{HI}, 325 \mathrm{HI}, 326 \mathrm{HI}, 327 \mathrm{HI}, 448 \mathrm{HI}, 449 \mathrm{HI}$, $45 \mathrm{IHI}, 452 \mathrm{HI}, 453 \mathrm{HI}, 454 \mathrm{HI}, 455 \mathrm{HI}, 458 \mathrm{HI}$.
6. Four half courses or the equivalent chosen from CLA $204 \mathrm{HI}, 230 \mathrm{HI}, 23 \mathrm{IHI}, 232 \mathrm{HI}, 233 \mathrm{HI}, 305 \mathrm{HI}, 364 \mathrm{HI}$, $368 \mathrm{HI}, 369 \mathrm{HI}, 370 \mathrm{HI}, 378 \mathrm{HI}, \mathrm{NMC} 257 \mathrm{H}, 270 \mathrm{YI}, 28 \mathrm{I}$ (formerly 252 HI ), $324 \mathrm{HI}, 329 \mathrm{HI}, 350 \mathrm{H}, 370 \mathrm{Y}, 380 \mathrm{Y}, ~ \mathrm{FAH}$ $300 \mathrm{HI}, 305 \mathrm{H}, 309 \mathrm{HI}, 3 \mathrm{I} 2 \mathrm{H}, 4 \mathrm{I} 8 \mathrm{HI}, 424 \mathrm{HI}$.
7. One full course in another religious tradition, preferably an Eastern tradition such Hinduism or Buddhism.

## Buddhist Studies (Arts program)

## Specialist Program

(IO full courses or their equivalent including at least one 400series full course or equivalent)
I. RLGI00YI/280YI
2. RLG 206 Y I
3. Two (2) consecutive (FCE) language courses in one of: Chinese, Japanese, Korean, Sanskrit or Tibetan.
4. Either one full RLG course in Judaism, Christianity or Islam, or one of: RLG $210 Y \mathrm{I}, 21 \mathrm{IYI}, 212 \mathrm{YI}$.
5. A total of FIVE FCE chosen from the following list. At least three FCEs must be taken at the 300 level or higher, including at least I FCE at the 400 level: (second year courses): RLG205YI, RLG236HI, RLG274HI, RLG275HI, EAS269YI, HIS280YI, HIS28IYI, HIS283YI, NEW2I4YI, PHL237HI; (third year courses): RLG36IHI, RLG363HI, RLG366HI, RLG37IHI, RLG372HI, RLG376HI, RLG375HI, EAS33IYI, EAS 368YI, EAS369YI, EAS389YI, HIS380YI, HIS38IYI, PHL337HI; (fourth year courses): RLG464HI, RLG466HI, RLG 490YI (on a topic in Buddhism), EAS468YI, EAS 469YI, NEW402YI.

## Major program:

(7 full courses or their equivalent with at least two courses at the $300+$ level).

## RLGI00YI/280YI

RLG 206YI
3. Five full courses or their equivalent chosen from the following list. At least two FCEs must be at the 300 level or higher: (second year courses): RLG205YI, RLG236HI, RLG274HI, RLG275HI, EAS269YI, HIS280YI, HIS28IYI, HIS283YI, NEW2I4YI, PHL237HI; (third year courses): RLG36IHI, RLG363HI, RLG366HI, RLG37IHI, RLG372HI, RLG376HI, RLG375HI, EAS33IYI, EAS 368YI,

EAS369YI, EAS389YI, HIS380YI, HIS38IYI, PHL337HI; (fourth year courses): RLG464HI, RLG466HI, RLG 490 Y ( on a topic in Buddhism), EAS468YI, EAS 469YI, NEW402YI.

Religion and Philosophy: see Philosophy

## Religion Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), all RLG courses are classified as HUMANITIES courses except RLG $2 I 0 Y \mathrm{I}, 2 \mathrm{II} \mathrm{YI}, 2 \mathrm{I} 2 \mathrm{YI}, 30 \mathrm{IHI}, 302 \mathrm{HI}, 304 \mathrm{HI}, 307 \mathrm{HI}, 3 \mathrm{I} 4 \mathrm{HI}$, $3 \mathrm{I} 5 \mathrm{HI}, 3 \mathrm{I} 6 \mathrm{HI}, 353 \mathrm{HI}, 354 \mathrm{HI}, 355 \mathrm{HI}, 386 \mathrm{YI}$, and 459 HI , which are SOCIAL SCIENCE courses.

## HUMI99HI/YI First Year Seminar

 $52 S$Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course; see page 47.
RLGIOOYI World Religions 52L, 26T
An introductory study of the ideas, attitudes, practices, and contemporary situation of the Judaic, Christian, Muslim, Hindu, Buddhist, Confucian, Taoist, and Shinto religious traditions. Exclusion: RLG280YI; HUM B03H3, HUM B04H3. Note: HUM B03H3 and HUM B04H3 taken together are equivalent to RLG I00YI

## 200-Series Courses

## Note

No 200-series course has a 100 -series RLG course prerequisite or co-requisite.

## RLG200YI The Phenomenon of Religion 52L, 26T (formerly RLGIOIYI)

Theories about the variety and nature of religious experience, personal and collective, including historiographic, psychological, sociological, anthropological, philosophical analyses of religion. How religious life is expressed in such forms as myth, narrative and ritual, systems of belief and value, morality and social institutions.
Exclusion: RLGIOIYI, IOIH5

## RLG20IYI Aboriginal Religion 52L, 26T

A survey of spirits, indigenous rites, stories, visions, shamanic and healing practices. Canadian First Nations' and Metis' experiences placed in cross-cultural perspective First Nations' and Metis' spiritualities studied academically in the history of religions, anthropology, and stories.
Recommended Preparation: RLG I00YI/200YI/280YI
RLG202YI The Jewish Religious Tradition 52L, 26T An introduction to the religious tradition of the Jews, from its ancient roots to its modern crises. Focus on great ideas, thinkers, books, movements, sects, and events in the historical development of Judaism through its four main periods - biblical, rabbinic, medieval, and modern.
Recommended Preparation: RLG I00YI/200YI/280YI
Exclusion: RLG 202H5

## RLG203Y

An introduction to the Christian religious tradition as it has developed from the Ist century C.E. to the present and has been expressed in teachings, institutions, social attitudes, and the arts.
Recommended Preparation: RLG 100 Y I/200YI/280YI
Exclusion: RLG 203H5
RLG204YI The Islamic Religious Tradition 52L, 26T
The faith and practice of Islam: historical emergence, doctrinal development, and interaction with various world cultures. Note: this course is offered alternatively with NMC I85HI, to which is it equivalent.
Exclusion: NMCI85YI, NMCI85HI, RLG 204H5
Recommended Preparation: RLG IOOYI/200YI/280YI
RLG205YI The Hindu Religious Tradition 52L, 26T
A historical and thematic introduction to the Hindu religious tradition as embedded in the socio-cultural structures of India. Recommended Preparation: RLG I00YI/200YI/280YI Exclusion: RLG 205H5

## RLG206YI The Buddhist Religious 52L, 26T Tradition

The teachings of the Buddha and the development, spread, and diversification of the Buddhist tradition from southern to northeastern Asia.
Recommended Preparation: RLG 100 Y I/200YI/280YI
Exclusion: RLG 206H5
RLG2IOYI Introduction to the Sociology 52L, 26T of Religion
Religion from the sociological viewpoint; religion as the source of meaning, community and power; conversion and commitment; religious organization, movements, and authority; the relation of religion to the individual, sexuality and gender; conflict and change; religion and secularization. Emphasis on classical thinkers (Durkheim, Marx, Weber) and contemporary applications. Note:This course is equivalent to SOC 250 YI . Exclusion: SOC 250YI
This is a Social Science course

## RLG2IIYI Introduction to the 52L, 26T <br> Psychology of Religion <br> A survey of the psychological approaches to aspects of religion

 such as religious experience, doctrine, myth and symbols, ethics and human transformation. Attention will be given to phenomenological, psychoanalytic, Jungian, existentialist, and feminist approaches..This is a Social Science course

## RLG2I2YI Introduction to the 52L, 26T Anthropology of Religion

Anthropological study of the supernatural in small-scale nonliterate societies. A cross-cultural examination of systems of belief and ritual focusing on the relationship between spiritual beings and the cosmos as well as the rights and obligations which arise therefrom. Among the topics covered are: myth and ritual; shamanism and healing; magic, witchcraft and sorcery; divination; ancestor worship.
This is a Social Science course

## RLG220HI Philosophical Responses to 26L, I3 T the Holocaust

This course deals with how the momentous experience of the Holocaust, the systematic state-sponsored murder of six million

Jews as well as many others, has forced thinkers, both religious and secular, to rethink the human condition.

## RLG22IHI Religious Ethics:The Jewish 26L, I3T Tradition

A brief survey of the Jewish biblical and rabbinic traditions; the extension of these teachings and methods of interpretation into the modern period; common and divergent Jewish positions on pressing moral issues today.
RLG224YI Problems in Religious Ethics 52L, 26T
An introduction to the analysis of ethical problems in the context of the religious traditions of the West. Abortion, euthanasia, poverty, environmental degradation, militarism, sex, marriage, and the roles of men and women.

## Exclusion: RLGI05YI

## RLG225HI Christian Ethics and Human 26L, I3T Sexuality

The basis of Christian ethics for a formulation of standards of inter-personal conduct and sexual relations; an analysis of changing sexual mores, familial structures and child-rearing techniques; and a critical evaluation of the development of reproductive technologies.
Recommended Preparation: RLG 224Y।
RLG228HI 26L, I3T

The ethics and religious symbolism of environmental change: animal domestication and experimentation, deforestation, population expansion, energy use, synthetics, waste and pollution.

| RLG23IHI | Religion and Science <br> (formerly RLG 23IYI) |
| :--- | :--- |
| 26L, I3T |  |

The impact of the physical and social sciences on religion and religious thought. A comparative philosophical study of scientific and theological ways of analysis and of the status of scientific and religious assertions. Areas of cooperation and of conflict between the "two cultures."
Exclusion: RLG 23IYI, SMC 230YI
RLG232HI Religion and Film 26L, I3T
The role of film as a mediator of thought and experience concerning religious worldviews. The ways in which movies relate to humanity's quest to understand itself and its place in the universe are considered in this regard, along with the challenge which modernity presents to this task. Of central concern is the capacity of film to address religious issues through visual symbolic forms.

## Exclusion: RLG 232H5

RLG 236HI Women and Religion in Asia 26L, 13T
A study of women in the religious traditions of South and East Asia, including historical developments, topical issues, and contemporary women's movements.

## RLG237HI Women and Western Religions 26L, 2T (formerly RLG 237YI)

The social and legal status of women in Judaism, Christianity, and Islam. The historical and contemporary situation of women in these traditions.
Exclusion: RLG 237YI
RLG239HI Special Topics 26L
Some topic of central interest to students of religion, treated on a once-only basis by a professor visiting from another university. For details of this year's offering, consult the Department's current undergraduate handbook.

## Religion

## RLG24IYI Early Christian Writings I 52L, 26T

An introduction to New Testament literature, examined within the historical context of the first two centuries. No familiarity with Christianity or the New Testament is expected.
Exclusion: RLG 24IH5; 34IH5; HUMC 14H3
RLG243HI Diasporic Religions 26L, I3T
An examination of religions in their contemporary diasporic and transnational modes. Issues addressed include the role of religions in sustaining identities across national boundaries, the impact of cultural forces such as commodification or gender upon religious representations and transformations, or the intersection of religion with other kinds of authoritative knowledge, such as medicine or law, in diasporic conditions. Recommended Preparation: RLG I00YI/RLGI00H5/RLG280YI

## RLG245YI Religions of the Silk Road 52L, 26T

An historical introduction to the religious traditions that flourished along the Silk Road, including Zoroastrianism, Manichaeism, Nestorian Christianity, Judaism, Buddhism and Islam. Drawing on a variety of sources (textual, archaeological, works of art), the course will focus on the spread and development of these traditions through the medieval period. Issues include cross-cultural exchange, religious syncretism, ethnic identity formation and so on. Emphasis will also be placed on religious and political events in modern Central Asia. Recommended Preparation:RLGI00YI/280YI/I00H5

## RLG248HI Martyrs, Mystics, and Saints 26L I3T

An examination of the variety of ways in which religious traditions construct sanctity, articulate categories of exceptionalism, and how exceptional persons function within social systems. Consideration of gender and social status in definitions of sanctity. Focus varies from year to year, and may focus either on constructions of sanctity in one religious tradition, or comparatively, comparing and contrasting ideas of sainthood and martyrdom in Christianity, Judaism, Islam, Hinduism and/or Buddhism.
Recommended Preparation: RLG IOOYI/RLG I00H5 / RLG 280YI

## RLG250HI Islam in the Modern World 26L, I3T

An introduction to the development of Islam during the $19^{\text {th }}$ and $20^{\text {th }}$ century through the work of Muslim writers, such as Afghani, Abduh, Sayyid Ahmed Khan, Mawdudi, Sayyid Qutb, alQardawi, al-banna, Khomeini, Muhammad Iqbal, Seyyed Hossein Nasr, and Ali Shariati

## RLG25IHI Women in Islam

An introduction to the role of women in Muslim societies in past and present. Topics include the status of women in the Qur'an and Islamic law, veiling, social change, and Islamic feminism.
Recommended Preparation: RLG I00YI/200YI/204YI/NMC I85HI/RLG 204H5

## RLG260YI Introduction to Sanskrit 52L, 26T

An introduction to Sanskrit for beginners. An overview of basic grammar and development of vocabulary, with readings of simple texts.
RLG26IYI Introduction to Tibetan 52L, 26T
An introduction to Tibetan for beginners. An overview of basic grammar and development of vocabulary, with readings of simple texts.

RLG274HI Chinese Religions 26L, I3T
The religions and philosophies of China, including ancient religion and mythology, the three traditions of Confucianism, Taoism, and Buddhism (including their philosophical dimensions), and Chinese popular religion.
Exclusion: RLG272YI, 272H5, 370YI
RLG275HI Japanese and Korean Religions 26L, I3T The religions of Japan (Shinto, Buddhism, Confucianism) and the religions of Korea (Confucianism, Buddhism, Shamanism). Exclusion: RLG273YI, 273H5, 370YI

## RLG280Y I World Religions: A 52L, 26T <br> Comparative Study

An alternative version of the content covered by RLG IOOYI, for students in second year or higher who cannot or do not wish to take a further 100 -level course. Students attend the RLG IOOYI lectures and tutorials but are expected to produce more substantial and more sophisticated written work, and are required to submit an extra written assignment.
Exclusion: RLGIOOYI
Prerequisite: Completion of 6 full course equivalents
RLG290Y I Special Topics TBA
Topics vary from year to year.

## RLG299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.

## 300-Series Courses

## Note

All 300-series courses normally presuppose at least three prior RLG half-courses (or equivalent). Only specific prerequisites or recommended preparations are listed below. Students who do not meet the prerequisites but believe they have adequate preparation should consult the Undergraduate Administrator regarding entry to the course.

RLG30IHI Sigmund Freud on Religion 26L
Systematic analysis of Freud's main writings on religion, studied within the context of central concepts and issues in psychoanalysis such as: the Oedipus Complex, the meaning and function of symbols, the formation of the ego and the superego, and the relations between the individual and culture.
Prerequisite: RLG2 I IY|
This is a Social Science course
RLG302HI Carl Jung's Theory of Religion 26L
Jung's analysis of the development of the personality through
its life cycle, and of the central place which religion holds
within the process of maturation. The unconscious, the collective unconscious, dreams, myths, symbols, and archetypes; implications for religious thought, therapy, education, and definitions of community.
Prerequisite: RLG2 I IYI
This is a Social Science course

## RLG303HI Evil and Suffering

The existence of evil poses a problem to theistic beliefs and raises the question as to whether a belief in a deity is incompatible with the existence of evil and human (or other) suffering. This course examines the variety of ways in which religions have dealt with the existence of evil.
This is a Social Science course

## RLG304H I Language, Symbols, Self

26L
Theories of the self that involve the constitutive role of language in its various forms. Problems of socially-conditioned worldviews and sense of self as related to discourse. Myth, symbol, metaphor, and literary arts as vehicles for personality development and self-transformation along religious lines. This is a Social Science course

## RLG307HI Religion and Society in Canada 26L (formerly RLG 307YI)

Sociological examination of religion in contemporary Canadian society: religions of English and French Canada; religious organization and demography; relation of religion to ethnicity, social questions and politics; secularization and privatization. Exclusion: RLG307YI
Prerequisite: RLG2 IOY I/SOC250Y/an introductory course in sociology
This is a Social Science course
RLG308HI Religion and the City 26L
The course focuses on the role of religion in the genesis and development of cities, as well as the ways urbanization and immigration have transformed religious organizations and identities. Various methodologies, including ethnography, social and cultural history, and textual analysis will be considered. In some years, course projects will focus on mapping the changing significance and presence of particular religions in Toronto. For 2007, the focus will be on Christianities in the GTA
RLG309YI Religion, Morality and Law 52L
The relationship and interaction between religious and ethical norms, social and political ideals, and systems of law. The course concerns the ongoing dialectic between religious and other values, the application of religious ideas to social orders, and questions of religious and human rights.
Prerequisite: three RLG or PHI/PHL half-courses and third year standing
Exclusion: RLG 309H5

## RLG3IOYI Modern Atheism and the Critique of Religion (formerly RLG3IOHI)

Historical and critical-philosophical examination of the development of atheism in Western intellectual circles. Consideration of 18th, 19th and 20th century critiques of religion derived from: theories of knowledge that privilege science; radical social and political thought; and analysis of the soul and its symbol-systems. Authors include Hume, Marx, Bakunin, Nietzsche, and Freud.
Prerequisite: three RLG or PHI/PHL half-courses and third year standing

## RLG3IIHI World Religions and Ecology 26L

A study of the responses of selected world religious traditions to the emergence of global ecological concerns. Key concepts and tenets of the traditions and their relevance for an examination of the environmental crisis.
Recommended preparation: RLG228HI
Exclusion: RLG3IIH5
RLG3I3HI Islam and Gender 26L
This course provides an introduction to past and contemporary debates among Muslims about gender. The historical and textual background--the material that is the basis of the debate--is examined first. Then, the ways that Muslim discourses, ranging from conservative to feminist, approach and utilize this material will be considered

Recommended Preparation: RLG 204YI/ NMCI85HI/ NMCI85YI/ RLG237HI/ RLG3I4HI
RLG3I4HI Gender Issues in Religion 26L
Examination of gender as a category in the understanding of religious roles, symbols, rituals, deities, and social relations. Survey of varieties of concepts of gender in recent feminist thought, and application of these concepts to religious life and experience. Examples will be drawn from a variety of religious traditions and groups, contemporary and historical.
Exclusion: RLG 314H5
This is a Social Science course

## RLG3I5HI Rites of Passage

Analysis of rituals of transition form one social status to another (e.g., childbirth, initiation, weddings) from theoretical, historical and ethnographic perspectives. Particular attention is paid to the multi-religious North American environment, and to the importance of rites of passage in the construction of gendered identities.
Prerequisite: three half-courses in RLG or PHI/PHL
This is a Social Science course

## RLG3I6HI Classical Anthropological Theories of Religion

An examination of the theories of religion developed by late 19th and 20th century anthropologists such as Taylor, Frazer, Durkheim, Freud, Van Gennep, Levi-Strauss, Douglas and Turner. Their ideas about systems of ritual and belief in small-scale, non-literate, kinship-based societies.
Prerequisite:: RLG2I2YI or any Anthropology course.
This is a Social Science course
RLG3I7HI Religious Violence and
Nonviolence
Religious violence and nonviolence as they emerge in the tension between strict adherence to tradition and individual actions of charismatic figures. The place of violence and nonviolence in selected faith traditions.
Recommended preparation: RLGI00YI/280YI
Exclusion: RLG3I7H5

## RLG3I9HI Reconception of Biblical

 Figures in Early Jewish and Christian SourcesThis course examines the origins, growth, and texture of traditions that developed in early Judaism and Christianity around selected biblical figures. With an eye to the function played and authority held by these traditions, the course will focus variously on Adam and Eve, Enoch, Abraham, Miriam, Levi, David, and Solomon.
Prerequisite: RLG 24 IYI/ NMC 280H / NMC 280YI
RLG320HI Judaism and Christianity in 26L the Second Century
Judaism and Christianity in the period from 70 C.E. to 200.
CE.The course focuses on the relationship between the two religious groups, stressing the importance of the setting within the Roman Empire.
Prerequisite: RLG 24IYI
RLG32IHI Early Christian Writings II
An introduction to the first and second century Christian writings. A survey of the surviving works and their historical contexts, close analysis of selected texts and an examination of what these sources tell us about the early Christian communities.
Prerequisite: RLG 24IYI/RLG 203Y।

## Religion

## RLG322HI Early Christian Gospels

26L
Literary, historical, and rhetorical analyses of selected early Christian gospels. The gospels to be treated will vary, but each year will include a selection from the four canonical gospels and extra-canonical gospels (the Gospel of Thomas, the Gospel of Philip, the Gospel of Peter, the Gospel of Truth, infancy gospels, and fragments of Jewish-Christian gospels)
Prerequisite:RLG24IYI

## RLG323HI Jesus of Nazareth

An examination of the "historical Jesus" based on a critical study of the earliest accounts of Jesus, with intensive study of the Gospels to determine what can be said about Jesus' activities and teachings.
Prerequisite: RLG 24 IYI
Exclusion: RLG323H5

## RLG324HI Paul of Tarsus

An examination of Paul's life and thought as seen in the early Christian literature written by him (the seven undisputed letters), about him (the Acts of the Apostles, the Acts of Paul) and in his name (the six disputed NT letters).
Prerequisite: RLG 241 YI
Exclusion: RLG324H5

## RLG325HI Visions and Revelations in 26L Ancient Judaism and Christianity

This course treats the major elements of the apocalyptic literary corpus and accompanying visionary experiences in ancient Judaism and Christianity. Contemporary theories on the function and origin of apocalyptic literature.
Prerequisite: RLG202YI/203YI/24IYI or permission of instructor
Exclusion: NMC 338H, RLG325H5

## RLG326HI Roots of Early Christianity 26L

 and Rabbinic JudaismAnalysis of selected documents of Second Temple Judaism in their historical contexts, as part of the generative matrix for both the early Jesus movement and the emergence of rabbinic Judaism.
Prerequisite: RLG 24IYI/RLG 202YI/RLG203YI
Exclusion: RLG326H5

## RLG327HI Magic and Miracle in Early

 ChristianityMagic, religion, astrology, alchemy, theurgy, miracle, divinationall of these phenomena characterize the context and practice of ancient Christianity. This course examines the constitution of these categories, the role and character of these phenomena in the Graeco-Roman world, and the interaction with and integration of these phenomena by ancient Christianity. Prerequisite: RLG 24IYI

## RLG329HI The Development of Christian Identity

The development of Christian identity, examined from a pscyosocial, ethical, and theological perspective, and as revealed in autobiographies, diaries and letters.
Prerequisite: one RLG course
Recommended Preparation: RLG 24IY, 242Y.
Exclusion: RLG329H5

## RLG330HI God and Evil

A study of some of the most important and influential attempts by Christians to reconcile their experience and understanding of evil with their purported experience and understanding of God. Selections from biblical writers, Augustine of Hippo, Thomas Aquinas, John Calvin, Karl Barth, and Gustavo Gutierrez.

Prerequisite:Three half-courses in RLG, PHI/PHL or Christianity and Culture
RLG33 IYI
Eastern Christianity
52L
The formation and development of distinctively Eastern traditions of Christianity. The history and major writers of Eastern Christianity up to the fall of Constantinople in 1453.
The development of the national Eastern Churches up through the modern period, and their particular contributions to the Eastern Christian tradition.
RLG333HI Christianity and Conflict 26L
This course focuses on modern Christianity as an instigator of conflict and a resource for its resolution. Exploring conflict among Christians and between Christians and non-Christians, topics may include missions and colonialism; gender and sexuality; anti-Semitism; pacifism and just war; CatholicProtestant tensions; cultural diversity and syncretism; and church-state relations.

## RLG334HI World History of Modern 26L Christianity, I770s-1914

Thoroughly cross-cultural study of how Christians across the world constructed the extraordinary variety of their religious life during the period when Christianity became by far the most widespread, the most diverse, and the most populous religion in world history. Emphasis on selected cultures on all continents.
$\begin{array}{ll}\text { RLG335HI } & \begin{array}{l}\text { World History of Modern } \\ \text { Christianity, 1914-present }\end{array}\end{array}$
Analysis of how Christians (i.e., one-third of the world's population) have engaged large themes since the First World War: liturgy, migration, creedal change, the Holy Spirit, religious privatization and public life, denominations, war, inculturation, scripture, secularity, disintegration of empires, world capitalism, encounter with Islam, Hinduism, Buddhism, indigenous religions, Judaism.

## RLG336YI Heresy and the Margins of 26L

 Christian IdentityA comparative study of the history of marginal movements within Christianity. Includes studies of the social-historical theories of internal constructions of "deviance" and studies of selected heretical movements and central responses to such movements. In individual years the course may focus on specific regions and include travel to selected sites.
Prerequisite: A second-year RLG course

## RLG337HI Witchcraft and Magic in 26L, I3T Christian Tradition

This course considers the history and theory of Western witchcraft, magic, and heresy in the mediaeval and early modern periods. Consideration of relevant anthropological theory, the relationship between constructions of witchcraft, the Enlightenment and the rise of science, and the role of gender in definitions of witchcraft.
Recommended Preparation: RLG 203YI/RLG 203H5

## RLG338YI Technology, Ethics and the

Future of Humanity
The role of technology within various projections of global economic development, examined from a Christian ethical perspective. Ethical responses to problems that threaten the future of humanity: poverty, resource depletion, environmental degradation, arms build-up, and biotechnical revolution. Recommended preparation: RLG 224Y Exclusion: RLG338H5

## RLG340YI Classical Jewish Theology

 52LA study of four great figures during critical moments in Jewish history, each of whom represents a turning point: Jeremiah (biblical era), Rabbi Akiva (rabbinic era), Moses Maimonides (medieval era), Franz Rosenzweig (modern era). Belief in God; Torah as law, teaching, tradition, revelation, eternity of Israel, meaning of Jewish suffering, problem of radical evil, history and messianism.
Prerequisite: RLGI00YI/202YI/22IHI/280Y।

## RLG34IHI Dreaming of Zion: Exile and Return in Jewish Thought

An inquiry into the theme of "exile and return" in Judaism, often called the leading idea of Jewish religious consciousness. Starting from Egyptian slavery and the Babylonian section, and culminating in the ideas of modern Zionism, the course will examine a cross-section of Jewish thinkers- ancient, medieval, and modern.
Prerequisite:RLGI00YI/202YI/280YI/342YI

## RLG342YI Judaism in the Modern Age (formerly RLG244YI)

The development and range of modern Jewish religious thought from Spinoza, Mendelssohn and Krochmal, to Cohen, Rosenzweig and Buber. Responses to the challenges of modernity and fundamental alternatives in modern Judaism. Prerequisite: RLGI00YI/202YI/22IHI/280YI

## RLG343HI Kabbala: A History of Mystical 26L Thought in Judaism

A historical study of the Kabbala and the mystical tradition in Judaism, with emphasis on the ideas of Jewish mystical thinkers and movements.
Prerequisites: RLGI00YI/202YI/280YI

## RLG344YI Antisemitism

The religious and cultural roots of antisemitism and its manifestations in Western civilization: anti-Jewish aspects of pagan antiquity, the adversus Judaeos tradition in classical Christian theology; racist antisemitism in Europe (the Aryan myth); the rise of political antisemitism; the Nazi phenomenon, antisemitism in Canada and the United States.
Prerequisite: A 200-level course in Judaism or Christianity or Western history

## RLG345HI Social Ecology and Judaism

The environment and human society studied as systems of organization built for self-preservation. Such topics as vegetarianism and the humane treatment of animals, suicide and euthanasia, sustainability and recycling, explored from the perspective of Judaism.
Prerequisite: RLGI00YI/228HI/280YI/one course in Jewish Studies

## RLG346HI Time and Place in Judaism

The meaning of holy time and holy place, the physics and metaphysics of time and space within Judaism. Topics include the garden of Eden, the temple, the netherworld, the land of Israel, and exile; the sabbath and the week; the human experience of aging as fulfillment and failing.
Prerequisite: RLGI00YI/280YI/one course in Jewish Studies

## RLG350HI The Life of Muhammad

This course examines Muhammad's life as reflected in the biographies and historical writings of the Muslims. Students will be introduced to the critical methods used by scholars to investigate Muhammad's life. Issues include: relationship between

Muhammad's life and Qur'an teachings and the veneration of Muhammad.
RLG35IHI The Qur'an:An Introduction 26L
The revelatory process and the textual formation of the Qur'an, its pre-eminent orality and its principal themes and linguistic forms; the classical exegetical tradition and some contemporary approaches to its interpretation.
Prerequisite: RLGI00YI/204YI/224HI/280YI/NMCI85YI/
NMCI85H
Exclusion: NMC 285HI, NMC 285YI
RLG352HI Islam in Religious Interaction 26L
Aspects of the relationship of Islam with other religions and cultures. Topics treated may include attention to both the medieval and the modern periods as well as to contemporary challenges faced by Muslim populations in Europe and North America.
Prerequisite: RLGI00YI/204YI/224HI/280YI/NMCI85YI

## RLG353HI Islam and Popular Culture 26L

Examines popular culture in the Muslim world and the portrayal of Islam in Western popular culture. Film, internet, music, news media, and ethnographic writings on pop culture in the Muslim world. Attention will also be given to specific incidents, such as the Salman Rushdie debate and the Danish cartoon controversy. Prerequisite: RLG 204YI/ RLG 204H5/ NMC I85HI
Recommended Preparation: RLG 232HI
This is a Social Science course

## RLG354HI Islam in Egypt

26L
This course complicates the notion of a monolithic Islam through looking at different forms of religious life found in Egypt, including Sufism, state Islam, reformist Islam, and Islamist movements.
Prerequisite: RLG 204YI/RLG 204H5 / NMC 185HI
Recommended Preparation: RLG 250HI
This is a Social Science course

## RLG355HI Anthropology of Islam 26S

Combines theoretical reflections on what an anthropology of
Islam might entail with ethnographic readings on the practice of Islam in communities around the world.
Prerequisite: RLG 204YI / RLG 204H5 / NMC 185HI
Recommended Preparation: RLG 2I2YI / RLG 250HI
This is a Social Science course
RLG36IHI Hindu Myth 26L
Readings in Vedic, Pauranic, Tantric and folk myths; traditional
Hindu understandings of myth; recent theories of interpretation, e.g. those of Levi-Strauss, Eliade, Ricoeur, applied to Hindu myths.
Prerequisite: RLGI00YI/205YI/280YI
RLG363HI Hindu Ritual
26L
Hindu ritual in its Vedic, Pauranic, Tantric, and popular forms; the meaning that ritual conveys to its participants and the relation of ritual to Hindu mythology and to social context.
Prerequisite: RLGI00YI/205YI/280YI
RLG365HI Modern Hinduism 26L
The development of modern Hindu religious thought in the contexts of colonialism, dialogue with "the West" and the secular Indian state.
Prerequisite:RLGI00YI/205YI/280YI
Exclusion:RLG360HI

## Religion

## RLG366HI Classical Hindu Philosophy 26L

A study of six classical schools of Hindu philosophy, focusing on the key issues of the Self, the Real, karma and ethics.
Prerequisite:RLGI00/205/280/
Exclusion:RLG362HI
RLG367HI Religious Pluralism in

## Modern India

A study of the multi-religious context of modern India, focusing particularly on "minority" traditions such as Sikhism, Islam, Jainism, Zorastrianism and others..
Recommended preparation: RLG I00YI/280YI/RLG 205YI

## RLG37IHI Buddhism in East Asia

The schools of Buddhism in East Asia, with focus on two principal ones: Ch'an (Zen) and Pure Land. Readings in translation from their basic sutras.
Prerequisite: RLGI00YI/206YI/280YI
Exclusion: RLG37IH5

## RLG372HI Tibetan Buddhism <br> 26L

A survey of the various schools of Tibetan Buddhism, focusing on differences in both theory and practice, with readings of Tibetan texts in translation and ethnographic studies of Buddhist practice in Tibet.
Prerequisite: RLG206Y

## RLG373HI Buddhist Meditation: Historical, Doctrinal, and Ethnographic Perspectives

This course will examine Buddhist meditation, its history, and basic concepts through a critical analysis of primary and secondary readings. Students will be asked to explore the tensions between knowledge and experience, belief and ritual, theory and practice as it unfolds in different representations of Buddhist meditation. A brief survey of some of the more important traditions of Buddhist meditation will be accompanied by an in-depth look at the specific contexts from which they arose.
Recommended Preparation: RLG 206YI/ RLG 206H5

## RLG375HI Buddhist Thought in India and Tibet

An introduction to philosophical thought in the Buddhist traditions of India and Tibet.
Prerequisite: RLG206YI

## RLG376HI Death and Rebirth in 26L Buddhist Traditions

This course considers Buddhist notions of death, the afterlife, and rebirth. Topics include Buddhist cosmology and karmic causality, exemplary models of death and birth, and ritual studies of mortuary rites and birth practices. Readings will combine Buddhist primary texts in translation and secondary scholarship in religious studies and anthropology.
Prerequisite: RLG206Y।

## RLG379HI Daoism in Practice

26L
What is Daoism? In this course we will examine the history of Daoist practice in medieval East Asia, paying close attention to the way scholars of Daoism have defined their subject in relation to Buddhism and the indigenous traditions of China, Japan, and Korea. Topics may include Daoist ritual, priesthood, textual practices, cosmology, meditation and alchemy. Emphasis will be placed on contemporary Daoist practice in Taiwan and North America.
Recommended Preparation: RLGIOOYI/280Y/208Y/274HI

## RLG380HI Comparative Mysticism 26L

A comparative examination of Christian (Latin and Orthodox), Buddhist, Confucian, Taoist, Hindu and Islamic mystical traditions.

## RLG384HI Pluralism and Dialogue

 26LThe contemporary phenomenon of religious pluralism: its historical emergence, social context and intellectual justifications. Achievements, techniques and outstanding issues in inter-religious dialogue.

## RLG386Y I Religions of Non-Literate 52L Societies

This course explores the nature of religion in societies whose main traditions are orally encoded. Emphasis will be placed on the peoples and cultures of Oceania in terms both of ethnography and of various theories about how to understand religion in small scale, kinship-based societies without written traditions.
Exclusion: RLG 3I8Y।
Prerequisite: RLG 2I2YI or 2nd year Social/Cultural
Anthropology Course
This is a Social Science course
RLG388HI Special Topics I 26L
RLG389HI Special Topics II 26L
RLG398H0/ Independent Experiential Study Project 399Y0
An instructor-supervised group project in an off-campus setting. See page 47 for details.

## 400-Series Courses

## Note

400-series courses are intended primarily for Specialists and Majors who have already completed several RLG courses. Prerequisite for all 400-level courses is permission of the instructor. All 400-level courses are E indicator courses. Students must enrol at the department.

## RLG400YI/ Independent Studies Abroad <br> 401HI/ <br> 402 HI

Intensive programs of study including site visits and lectures in areas of religious significance abroad. Preparatory work expected, together with paper or assignments upon return. (YI course: 4 weeks minimum; H course: 2 weeks minimum)

## RLG404HI Method and Theory Seminar

An advanced course in methodological and theoretical approaches to the study of religion. Topics considered include: historical development of religious studies; significance and application of interdisciplinary methodologies; key theorists and theoretical controversies. This team-taught course is of particular use to specialists and honours students seeking to develop superior research skills.
RLG4IOYI Advanced Topics in Religion 26S
RLG4IIHI Advanced Topics in Religion 26S
RLG4I2HI Advanced Topics in Religion 26S
RLG420HI Religion and Philosophy in the 26S European Enlightenment
An advanced study of selected Enlightenment thinkers with a focus on their interpretations of religion. The work of Immanuel Kant will form a focus point, but others will be discussed as
well. Issues include the rational critique of traditional religion, the relations among religion, ethics and politics, and the pursuit of universal approaches to religion.

## RLG42IHI Topics in Psychology of Religion

Provides an indepth study of selected theorists in the psychology of religion, such as Freud, Ricoeur, Lacan, and Kristeva. Approaches the topic both in terms of interpretive models applied to individual and cultural religious forms, such as symbols, rituals, and personal experiences, and in terms. Of religious subjectivity as related to self-knowledge and ethical development.

## RLG422HI The Study of Non-Literate Religions in 19th and Early 20th Century France

This course will concentrate on works by Emile Durkheim, Arnold Van Gennep, Marcel Mauss, Lucien Levy-Bruhl, Robert Hertz and others that attempted to establish universals of religious beliefs and experience. Topics include double burial, sacrifice, rites of passage, "participation", and concepts of sacred and profane.

## RLG423HI The Birth of Anthropology

This course will examine the 19th Century origins of anthropology in the study of the bible and 'other' primitive religions. It will focus on influential works by Frazer, Tylor, Robertson-Smith, Mueller, Bachofen and Freud.
RLG424H Dreams, Visions and the Enlightenment S Approaches dreams and visions from philosophical, psychological and ethnographic perspectives. Considers Aristotle, Hobbes and Kant on supernatural perception, Descartes' dream argument, Freud and Jung, as well as ethnographic accounts of the role of dreams and visions in different cultural contexts.
Prerequisite: RLG 2IIYI and permission of instructor

## RLG430HI Advanced Topics in Judaism

RLG43IHI Advanced Topics in Judaism 26S
RLG432YI Natural Law in Judaism 52S and Christianity
This seminar deals with the question of how a religion like Judaism or Christianity, based on revelation and its norms, can acknowledge and incorporate norms discovered by human reason, without reducing reason to revelation or revelation to reason.

## RLG433HI Maimonides and His Modern Interpreters

An introduction to The Guide of the Perplexed by Moses Maimonides, and to some of the basic themes in Jewish philosophical theology and religion. Among topics to be considered through close textual study of the Guide: divine attributes; biblical interpretation; creation versus eternity; prophecy; providence, theodicy, and evil; wisdom and human perfection. Also to be examined are leading modern interpreters of Maimonides.
Exclusion: POL42IHI

## RLG434HI Modern Jewish Thought

Close study of major themes, texts, and thinkers in modern Jewish thought. Focus put on the historical development of modern Judaism, with special emphasis on the Jewish religious and philosophical responses to the challenges of modernity. Among modern Jewish thinkers to be considered: Spinoza, Cohen, Rosenzweig, Buber, Scholem, Strauss, and Fackenheim.

## RLG435HI The Thought of Leo Strauss 26S

The philosophic thought of Leo Strauss approached through his writings on modern Judaism. Primarily addressed will be the mutual relations between philosophy, theology, and politics. Among other topics to be dealt with: origins of modern Judaism, Zionism, liberal democracy, and biblical criticism; meaning of "Jerusalem and Athens"; cognitive value in the Hebrew Bible.

## RLG437HI Constructions of Authority in 26L, I3T Early Christianity

This course examines changing patterns of authority and hierarchy in early Christian communities. Students will explore various roles and offices of authority in canonical and extracanonical texts in relation to cultural, political, and theological constructions of body, gender, holiness, and orthodoxy as these contribute to developing models of authority. The goal of the course is to familiarize students with the constellation of ideas that participate in developing Christian notions of religious authority.
Prerequisite: Permission of instructor
Recommended Preparation: RLG 203YI/RLG 203H5
RLG440HI Religion and Healing 26S
The relationship between religion and healing in the North American context through analysis of the religious roots of the biomedical model, as well as religious influences on alternative modes of healing.
RLG442HI North American Religions 26S
This course considers the varieties of religious practice in North America from anthropological and historical perspectives. Of particular interest are the ways religions have mutually influenced each other in the context of nineteenth and twentieth century North America.

## RLG448HI Religion and Material Culture

The course emphasizes the importance of material culture (artifacts, tombs, architecture, art, industrial installations, etc.) in studying the ancient world, and how it relates to other ways of interpreting religion and society. The course does not require previous familiarity with archaeology, but it presupposes interest in studying a range of excavations. Open to advanced undergraduates and qualified graduate students with permission of the instructor.

## RLG449HI The Synoptic Problem 26S

Investigation of the history of solutions to the Synoptic Problem from the eighteenth century to the present paying special
attention on the revival of the Griesbach hypothesis and recent advances in the Two-Document hypothesis.
Prerequisite: RLG 24IYI and at least one of RLG 3I9HI-327HI

## RLG45IHI The Parables of Jesus

26S
Examination of the parables in the gospels and other early Christian writers, and major trends in the modern analyses of the parables. Special attention will be paid to the social and economic world presupposed by the parables.
Prerequisite: RLG 24IYI and at least one of RLG 3I9HI-327HI
RLG452HI The Death of Jesus 26S
Examination of the accounts of the passion and death of Jesus in their original historical and literary contexts.
Prerequisite: RLG 241 YI and at least one of RLG $319 \mathrm{HI}-327 \mathrm{HI}$

## RLG453HI Christianity and Judaism in Colonial Context

Sets the study of early Christianity and Second Temple Judaism into relation with postcolonial historiography. Topics include hybridity, armed resistance, the intersection of gender and colonization, diaspora, acculturation, and the production of subaltern forms of knowledge. Comparative material and theories of comparison are also treated.

## RLG454HI Social History of the Jesus <br> Movement

26S

The social setting of the early Jesus movement in Roman Palestine and the cities of the Eastern Empire. Topics will include: Rank and legal status; patronalia and clientalia; marriage and divorce; forms of association outside the family; slavery and manumission; loyalty to the empire and forms of resistance.
Prerequisite: RLG 24 IYI and at least one of RLG 3I9HI-327HI

## RLG455HI Heresy and Deviance in Early Christianity

A study of the construction of deviance or heresy within the literature of first and second century Christianity: tasks include a survey of sociological theory in its application to deviance in the ancient world and close readings of selected texts from first and second century Christian and pre-Christian communities.. Prerequisite: RLG 24IYI and at least one of RLG $319 \mathrm{HI}-327 \mathrm{HI}$

## RLG456HI Readings in Qur'an and Tafsir 26S

This course is an introduction to the rich literature that has grown around the study of the Qur'an in the Arabic tradition. In addition to readings in the Qur'an students will read selections from works in ma'ani and majaz and major tafsir works. Selections include: al-Tabari, al-Tha labi, al-Zamakhshari, al-Qurtubi and al-Razi. The course will culminate in a study of al-Itqan of al-Suyuti.
Prerequisite: At least two years of Arabic, or advanced reading knowledge, or permission of the instructor.

## RLG457HI The Qur'an and its Interpretation

This course is designed to orient students to the field of contemporary Qur'anic studies through reading and discussion of the text itself and of significant European-language scholarship about the Qur'an as well as through examination of the principal bibliographical tools for this subject area.
Prerequisite: At least two years of Arabic or advanced reading knowledge, or the permission of the instructor.

## RLG458HI Apocryphal Bible 26S

Biblical or para-biblical literature continued to be produced by Jewish and Christian writers long after the establishment of the canons of the Jewish and Christian Bibles. This course introduces the student to some of the more important pieces of Old Testament pseudepigrapha and New Testament apocrypha and their modern scholarly study.

## RLG459HI Disciplining Islam 26S

Considers the disciplinary power of modernity through casestudies on the codification of Islamic law and practice. Contrasting modernity's discipline with Islam's own disciplinary power. Readings include works by Saba Mahmood, Charles Hirschkind, Jakob Skovgaard-Petersen, Brinkley Messick, Michel Foucault and Talal Asad.
Prerequisite: Permission of Instructor
Recommended Preparation: RLG 204YI/RLG 204HI/NMC 185H/ RLG 250HI
This is a Social Science course

## RLG460HI Ramayana in Literature,Theology, <br> 26S and Political Imagination

This course explores how this conception is the result of a historical process by examining documentable transformations in the reception of the Ramayana. Our focus will be on the shift in the classification of the Ramayana from the inaugural work of Sanskrit literary culture (adi-kavya) in Sanskrit aesthetics to a work of tradition (smrti) in theological commentaries, the differences between the Ramayana's ideal of divine kingship and medieval theistic approaches to Rama's identification with Visnu, the rise of Rama worship, and the use of Rama's divinity in contemporary political discourse.
Prerequisite: Permission of instructor
Recommended Preparation: RLG 205YI / RLG 205HI
RLG46IHI Ismaili History and Thought:The Persian Tradition
Biblical Critical reading, analysis and interpretation of Ismaili historical and doctrinal works of the Persianate tradition as developed by authors such as Nasir-i Khusraw, Nasir al-Din Tusi, Nizari Quhistani and others. The primary authors studied will change yearly.

## RLG463HI Causation, Movement and Time

in Buddhist Scholastic Debate
Starting from the basic Buddhist doctrines of karmic retribution and conditioned co-arising the course will explore how the idea of causation, the conceptualization of movement and their implications for models explaining the temporal character of the impermanent have shaped the course of Buddhist thought across schools and throughout various phases of Buddhist intellectual history in South Asia.
Prerequisite: Permission of Instructor
Recommended Preparation: RLG 206YI/ RLG 206H5

## RLG464HI History and Historiography of Buddhism

This course examines histories of Buddhism authored inside and outside Asia, considering how various models of historiography affect our knowledge of Buddhism and Buddhist cultures. Readings will include translations of indigenous Buddhist histories, recent histories of Buddhism that have shaped the field of Buddhist Studies, and theoretical studies of historiography
RLG465HI Buddhism and Science 26 S
Why associate Buddhism, or any religion for that matter, with science? We will attempt to answer this question by examining the specific concerns and agendas that governed and continue to govern the study of Buddhism and other Asian religions in the post-Enlightenment, colonial, and post-colonial eras. We will attempt to take the various representations of Buddhism as a "scientific" religion to task by examining them and their sources in their proper contexts.
Prerequisite: Permission of Instructor
Recommended Preparation: RLG 206YI / RLG 206H5

## RLG466HI Buddhism and Society in 26S East Asia

Issues common to the establishment and development of the Buddhist tradition(s) in China, Korea, and Japan. The reactions to Buddhism by the societies in which it was being implanted. Transformation of Buddhist teachings, practice, iconography, institutions, etc. as they were assimilated by the host countries.

## RLG467HI Esoteric Buddhism in East Asia 26S

An in-depth examination of the historical, ritual and doctrinal foundations of Esoteric Buddhism in China and Japan. Emphasis will
be placed on the Japanese Shingon tradition. The course will begin with an overview of what we do (and do not) know about the rise of Buddhist Tantra in India and will conclude with a survey of recent scholarly debates over the nature of Tantra itself.
Prerequisite: Permission of instructor Recommended Preparation: RLG 206YI; RLG37IHI

## RLG468HI Religion and Society in 26S <br> Classical Japan

Major developments in the history of Japanese religious traditions from the earliest known times (ca. 6th cent. C.E.) to the beginning of the modern era. This course will focus on the relations between the religious dimension of Japanese society and its social-politicaleconomic dimensions.

## RLG469YI Readings in Tibetan Buddhism 52 S

Advanced readings in Tibetan Buddhist literature. Tibetan language skills required.
Prerequisite: Instructor's permission required for admission to course.

## RLG47IHI Advanced Topics South Asian Studies

Content varies from year to year.
RLG472HI Religion and Aesthetics in 26S

## South Asia

'Religion' and 'aesthetics' are sometimes constructed as separate categories, but in South Asia religion is not often conceptually distinct from an autonomous sphere of aesthetic reflection. In conversation with recent sociological, anthropological, and philosophical writings, we will explore this issue through careful study of a variety of Sanskrit sources: the epics, Abhinavagupta's commentary on the Natya Sastra, Vaisnava, Saiva, and Jaina appropriations of Sanskrit aesthetics and courtly poetry, and the works of Rabindranath Tagore. Students are encouraged to work with sources in the primary languages, although materials will also be provided in translation

## RLG482HI The Taking of Human Life

 26SFrequently today in discussions in bioethics dealing with life and death, even secular thinkers invoke the concept of the "sanctity of human life." Yet that concept is clearly religious in origin. What do the three great monotheistic traditions have to say about this concept and its ethical significance?

## RLG483HI Christian Political Philosophy 26S

The writings of Simon Weil will be studied within the context of political theory and contemporary Christian philosophy. The basis for Weil's critique of the technological society will be examined.

## RLG484HI Religion and the Environment 26S

This course examines how religious concerns within various religious traditions interface with contemporary environmental issues. Particular attention is paid to the challenge posed to the human and religious values of these traditions by the present ecological crisis and some salient ethical and religious responses to this challenge

## RLG486HI Critiques of the Technological <br> Society

Major twentieth-century critiques of the technological society through an examination of the philosophical and theological writings of George Grant, Jacques Ellul and Simone Weil. Their seminal critiques will be contrasted with the ethical analyses of Ursula Franklin, Albert Borgmann, Hans Jonas, and Zygmunt Bauman.

RLG487HI Liberation Theology 26Si
This course exploresthe work of these two seminal contemporary Christian thinkers, Gustave Guitiérrez, founder of the liberation theology, and U.S. "geologian" Thomas Berry, a cultural historian and prime architect of "the new cosmology". The two thinkers highlight the conflict and convergence of social justice and ecological invitations within Christianity.

## RLG490YI Individual Studies <br> TBA

49IYI/
492HI/
493 HI
494HI
Student-initiated projects supervised by members of the Department. The student must obtain both a supervisor's agreement and the Department's approval in order to register. The maximum number of Individual Studies one may take is two full course equivalents. Deadline for submitting applications to Department including supervisor's approval is the first week of classes of the session.

## Renaissance Studies: see Victoria College

Russian: see Slavic Languages and Literatures

## Serbian: see Slavic Languages and Literatures

## Sexual Diversity Studies: see University College

## St. Michael's College

## Faculty

## Professors

A. Dooley, MA, Ph D
M. G. McGowan, MA, Ph D
D.A.Wilson, MA, Ph D

Associate Professors
G. Silano, LLB, MA, Ph D

## Assistant Professors

J. Harris, MA, Ph D
R. Locklin, MTS, Ph D

## Senior Lecturer

M. Nic Dhiarmada, MA, H Dip Ed

St. Michael's College offers a number of programs which emerge from its academic strength in various scholarly fields and reflect its centuries-old Christian intellectual traditions. Please consult the relevant brochures for more complete information on each program.

## Book and Media Studies:

An interdisciplinary and historical investigation of the role of printing, books and reading in cultures past and present. Topics explored include: manuscript and book production, internet publishing, book illustrations, censorship, advertising, readership and electronic media.

## Celtic Studies:

Examines the literature, languages, history, music, folklore and archaeology of the peoples of Ireland, Scotland and Wales. Investigates Celtic identities in the ancient and modern worlds, and explores the transmission of Irish, Scottish and Welsh traditions to Canada and the United States.

## Christianity and Culture:

A multidisciplinary exploration of Christian traditions from artistic, literary, philosophical, theological, scientific, social and historical perspectives.

## Christianity and Culture: Major program in Religious Education

This Major program is part of the Concurrent Teacher Education Program (CTEP) offered in partnership with the Ontario Institute for Studies in Education (OISE/UT) and is for those students preparing to become secondary school teachers of Religious Education in the Separate School Boards in Ontario.

## Mediaeval Studies:

An interdisciplinary treatment of the history, art, literature and thought of the Middle Ages.

St. Michael's also offers a number of courses, listed below, which form part of the above programs, or of the programs of other colleges and departments, or are a reflection of staff and student academic interests not always available in departmental course offerings.

Principal \& Program Director: Mark G. McGowan, 81 St. Mary Street, Room I27, Odette Hall (4I6-926-7IO2)

## St. Michael's College Programs

Enrolment in the Specialist, Major and Minor programs of St. Michael's College is open to students who have completed four courses; no minimum GPA required.

## Book and Media Studies (Arts program)

Consult Dr. Dorothy Speirs, St. Michael's College

## Major program:

(6 full courses or their equivalent, including at least two 300+ series courses)
I. SMC 219 YI
2. SMC 228YI
3. One full course or its equivalent from among SMC courses as designated by the program
4. Three full courses or their equivalent from: $\mathrm{ABS} 300 \mathrm{YI} /$ $302 \mathrm{HI} / \mathrm{ANT} 323 \mathrm{YI} / \mathrm{ENG} 232 \mathrm{HI} / 234 \mathrm{HI} / 235 \mathrm{HI} / 322 \mathrm{YI} /$ FAH3I9HI/FCS297HI/FRE450HI/HIS24IHI/3I6HI/ $34 \mathrm{IY} / 367 \mathrm{HI} / 374 \mathrm{HI} / 375 \mathrm{HI} / 4 \mathrm{I} 9 \mathrm{HI} / 437 \mathrm{HI} / 455 \mathrm{HI} / 477 \mathrm{HI} /$ HPS20IHI/202HI/INI $30 \mathrm{IHI} / 305 \mathrm{HI} / \mathrm{NMC} 357 \mathrm{YI} /$ POL45IYI/SLA254HI/SMC2IOYI/2I7HI/300HI/30IHI/ $304 \mathrm{HI} / 305 \mathrm{HI} / 3 \mathrm{I} 4 \mathrm{HI} / 3 \mathrm{I} 5 \mathrm{HI} / 358 \mathrm{HI} / 36 \mathrm{IHI} / 398 \mathrm{HI} / 399 \mathrm{YI} /$ VIC345HI/VIS206HI/WDW385HI/WGS27IYI

## Minor program

(4 full courses or their equivalent, including at least one 300+ series course)
I. SMC 219YI
2. SMC 228YI
3. Two courses or their equivalent from those included in 3. and 4. in the Major program above

## Celtic Studies (Arts program)

Consult Mairin Nic Dhiarmada, St. Michael's College.
Enrolment in the Specialist, Major and Minor programs in Celtic Studies is open to students who have completed four courses; no minimum GPA required.

## Specialist program:

( 10 full courses or their equivalent, at least four of which are $300+$ series courses, including at least one 400 -series course)
I. SMC 240 YI
2. Two of SMC I4IYI/24IYI/242YI/243YI/33IYI/440YI/ 44IYI
3. Seven courses, either from List 2 . above or SMC $333 \mathrm{HI} / 334 \mathrm{HI} / 335 \mathrm{YI} / 342 \mathrm{YI} / 343 \mathrm{YI} / 344 \mathrm{YI} / 345 \mathrm{YI} / 346 \mathrm{YI} /$ $348 \mathrm{YI} / 349 \mathrm{HI} / 350 \mathrm{HI} / 35 \mathrm{IHI} / 352 \mathrm{YI} / 353 \mathrm{YI} / 354 \mathrm{YI} / 355 \mathrm{HI} /$ $356 \mathrm{HI} / 395 \mathrm{YI} / 396 \mathrm{HI} / 4 \mathrm{IIHI} / 4 \mathrm{I} 2 \mathrm{HI} / 4 \mathrm{I} 3 \mathrm{HI} / 4 \mathrm{I} 4 \mathrm{HI} / 4 \mathrm{I} 6 \mathrm{HI} /$ 450YI/45IYI

## Major program:

(6 full courses or their equivalent, including at least two 300+ series courses)
I. SMC 240 YI
2. One of SMC I4IYI/24IYI/242YI/243YI/33IYI/440YI/ 44IYI
3. Four additional courses from those listed in the Specialist program above

## Minor program:

(4 full courses or equivalent chosen from those listed for the Specialist program, including at least one 300+ series course)

## Christianity And Culture (Arts program)

## Consult Dr. Jennifer Harris, St. Michael's College.

The courses of the Christianity and Culture Program include (1) all the SMC prefixed courses listed below under the Christianity and Culture heading, and (2) the following courses of other departments: HIS $469 \mathrm{HI} /$ RLG $222 \mathrm{HI} / 225 \mathrm{HI} /$ $32 \mathrm{IHI} / 330 \mathrm{HI} / 33 \mathrm{IYI} / 338 \mathrm{YI} / 384 \mathrm{HI}$. In addition to Christianity and Culture courses, a number of other courses are cross-listed and may be counted towards the major and specialist programs as specified below. This list is available from the Programs Administrator, Room 132, Odette Hall, and on the St. Michael's College web site.

## Specialist program:

(IO full courses or their equivalent: at least four of which are $300+$ series courses, including one 400 -level course; a total of two courses may be selected from the approved list of crosslisted courses)

## I. SMC I03YI/203YI

2. One full course equivalent from SMC $200 \mathrm{YI} / 205 \mathrm{HI} / 208 \mathrm{YI} /$ $215 \mathrm{HI} / 230 \mathrm{Y} \mathrm{I}$
3. Any three of the following four options:
a) Two courses from "Christianity and Society": SMC
$203 \mathrm{YI} / 204 \mathrm{HI} / 205 \mathrm{HI} / 207 \mathrm{HI} / 208 \mathrm{YI} / 209 \mathrm{HI} / 2 \mathrm{I} 5 \mathrm{HI} / 304 \mathrm{HI} /$ $308 \mathrm{HI} / 309 \mathrm{HI} / 3 \mathrm{IIHI} / 3 \mathrm{I} 3 \mathrm{HI} / 320 \mathrm{HI} / 32 \mathrm{IHI} / 332 \mathrm{HI} /$ $362 \mathrm{YI} / 390 \mathrm{YI} / 39 \mathrm{IHI} / 400 \mathrm{HI} / 40 \mathrm{IHI} / 42 \mathrm{IHI} / 426 \mathrm{HI} / 427 \mathrm{HI} /$ HIS469HI/ RLG222HI/225HI/32IHI or relevant crosslisted courses
b) Two courses from "Christianity and the Intellectual Tradition": SMC $208 \mathrm{YI} / 307 \mathrm{YI} / 310 \mathrm{HI} / 3 \mathrm{IIHI} / 3 \mathrm{I} 2 \mathrm{HI} /$ $330 \mathrm{YI} / 332 \mathrm{HI} / / 390 \mathrm{YI} / 39 \mathrm{IHI} / 400 \mathrm{HI} / 40 \mathrm{IHI} / 4 \mathrm{I} 7 \mathrm{HI} / 4 \mathrm{I} 8 \mathrm{HI} /$ $4 \mathrm{I} 9 \mathrm{HI} / 42 \mathrm{IHI} / 423 \mathrm{HI} / 424 \mathrm{HI} / 429 \mathrm{HI} / \mathrm{RLG} 222 \mathrm{HI} / 32 \mathrm{IHI} /$ $330 \mathrm{HI} / 33 \mathrm{IYI} / 384 \mathrm{HI}$ or relevant cross-listed courses c) Two courses from "Christianity, Arts and Letters": SMC $200 \mathrm{YI} / 20 \mathrm{IHI} / 206 \mathrm{HI} / 216 \mathrm{YI} / 2 \mathrm{I} 7 \mathrm{HI} / 302 \mathrm{HI} / 305 \mathrm{HI} /$ $390 \mathrm{YI} / 39 \mathrm{IHI} / 400 \mathrm{HI} / 40 \mathrm{IHI} / 422 \mathrm{HI} / 425 \mathrm{HI} / 428 \mathrm{HI}$ or relevant cross-listed courses d) Two courses from "Christianity and the Scientific Tradition": SMC $230 \mathrm{YI} / 306 \mathrm{HI} / 370 \mathrm{HI} / 37 \mathrm{IHI} / 390 \mathrm{YI} /$ $39 \mathrm{IHI} / 400 \mathrm{HI} / 40 \mathrm{IHI} / \mathrm{RLG} 338 \mathrm{YI}$ or relevant cross-listed courses
4. Two additional Christianity and Culture courses or crosslisted courses.

Major program:
(6 full courses or their equivalent: at least two 300+series courses)
I. SMC I03YII/203YI
2. One full course equivalent from SMC $200 \mathrm{YI} / 205 \mathrm{HI} / 208 \mathrm{YI} /$ $215 \mathrm{HI} / 230 \mathrm{Y}$ I
3. Four additional Christianity and Culture courses, of which one course may be chosen from the approved list of crosslisted courses.

## Minor program:

(4 full courses or their equivalent: at least one 300+ series course)
I. SMC I03YI/203YI
2. One full course equivalent from SMC $200 \mathrm{YI} / 205 \mathrm{HI} / 208 \mathrm{YI} /$ $215 \mathrm{HI} / 230 \mathrm{Y}$
3. Two additional Christianity and Culture courses

## Minor Program in Christianity and Education (Arts Program)

This program offers students the opportunity to consider the theory, practice and history of Christian pedagogy.
(4 full courses or their equivalent: at least one $300+$ series course)
I. SMCIO3YI
2. SMC3I2HI
3. $\mathrm{SMC} 3 I 3 \mathrm{HI}$
4. Two additional courses from Christianity and Culture: SMC200YI/20IHI/203YI/204HI/205HI/206HI/207H/ $208 \mathrm{YI} / 209 \mathrm{HI} / 2 \mathrm{I} 5 \mathrm{HI} / 2 \mathrm{I} 6 \mathrm{YI} / 2 \mathrm{I} 7 \mathrm{HI} / 230 \mathrm{YI} / 302 \mathrm{HI} / 304 \mathrm{HI} /$ $305 \mathrm{HI} / 306 \mathrm{HI} / 307 \mathrm{YI} / 308 \mathrm{HI} / 309 \mathrm{HI} / 3 \mathrm{I} 0 \mathrm{HI} / 3 \mathrm{IIHI} / 320 \mathrm{HI} /$ $32 \mathrm{IHI} / 330 \mathrm{YI} / 332 \mathrm{HI} / 362 \mathrm{YI} / 370 \mathrm{HI} / 37 \mathrm{IHI} / 4 \mathrm{I} 7 \mathrm{HI} / 4 \mathrm{I} 8 \mathrm{HI} /$ $4 \mathrm{I} 9 \mathrm{HI} / 42 \mathrm{IHI} / 422 \mathrm{HI} / 423 \mathrm{HI} / 424 \mathrm{HI} / 425 \mathrm{HI} / 426 \mathrm{HI} / 427 \mathrm{HI} /$ $428 \mathrm{HI} / 429 \mathrm{HI}$.

## Christianity and Culture: Major Program in Religious Education(Arts Program)

(part of Concurrent Teacher Education Program)
Consult Dr. Michael O'Connor, St. Michael's College
( 8 full courses or their equivalent, at least two $300+$ series courses
I. SMCIO3YI
2. Two courses as follows: JSV200HI; SMC27IHI; 272HI; 313 HI
3. At least one half course from the following: SMC362YI/ $426 \mathrm{HI} / 47 \mathrm{IHI}$
4. 4.5 courses from the following: $\mathrm{SMC} 200 \mathrm{YI} / 205 \mathrm{HI} / 208 \mathrm{YI} /$ $215 \mathrm{HI} / 216 \mathrm{YI} / 2 \mathrm{I} 7 \mathrm{HI} / 230 \mathrm{YI} / 304 \mathrm{HI} / 305 \mathrm{HI} / 307 \mathrm{YI} / 308 \mathrm{HI} /$ $3 \mathrm{IOHI} / 3 \mathrm{IIHI} / 3 \mathrm{I} 2 \mathrm{HI} / 330 \mathrm{YI} / 370 \mathrm{HI} / 4 \mathrm{I} 7 \mathrm{HI} / 4 \mathrm{I} 8 \mathrm{HI} / 4 \mathrm{I} 9 \mathrm{HI} /$ $428 \mathrm{HI} / 429 \mathrm{HI} / \mathrm{RLGI} 00 \mathrm{YI}$.

## Mediaeval Studies (Arts program)

Consult Professor Joseph Goering, St. Michael's College

## Specialist program:

( 12 full courses or their equivalent: at least four $300+$ series courses including one 400 -series course)
I. SMC $210 Y \mathrm{I}$
2. Two courses or equivalent from the foundational courses listed below
3. Two courses or equivalent in Latin
4. SMC 490YI: Senior Essay in Mediaeval Studies
5. Six courses or equivalent from the approved courses listed below

## Major program:

(7 full courses or their equivalent: at least two 300+ series courses)
I. SMC 2IOYI
2. One full course or its equivalent from the foundational courses listed below
3. Four full courses or their equivalent from the approved courses listed below
4. SMC 490YI: Senior Essay in Mediaeval Studies, or another course from the approved courses

## Minor program:

(4 full courses or their equivalent: at least one 300+ series courses)

## St. Michael's College

I. SMC 2IOYI
2. One course or equivalent from the foundational courses listed below
3. Two courses or equivalent from the approved courses listed below.

Foundational Courses:
SMC $302 \mathrm{HI} \quad$ Christianity and Symbols
SMC 307YI Scripture in the Christian Tradition
SMC 358HI The Mediaeval Book
SMC 359HI Mediaeval Theology
SMC 360 HI Vernacular Literature of the Middle Ages
SMC 36IHI Mediaeval Law

## History:

CLA 378HI/ HIS 208YI/220YI/25IYI/320YI/322YI/323HI/
$336 \mathrm{HI} / 403 \mathrm{YI} / 424 \mathrm{HI} / 427 \mathrm{HI} / 428 \mathrm{HI} / 432 \mathrm{HI} / 434 \mathrm{YI} / 438 \mathrm{HI} /$
HPS 20IHI/430HI/ NMC $270 \mathrm{HI} / 272 \mathrm{HI} / 273 \mathrm{YI} / 353 \mathrm{HI} / 366 \mathrm{YI} /$
$376 \mathrm{HI} / \mathrm{SMC} 2 \mathrm{IIHI} / 2 \mathrm{I} 5 \mathrm{HI} / 345 \mathrm{YI} / 357 \mathrm{HI} / 403 \mathrm{HI} / 42 \mathrm{IHI}$

## Thought: <br> CLA $336 \mathrm{HI} /$ MAT $390 \mathrm{HI} / \mathrm{PHL} 200 \mathrm{YI} / 205 \mathrm{HI} / 206 \mathrm{HI} / 303 \mathrm{HI} /$ <br> $304 \mathrm{HI} / 307 \mathrm{HI} / 308 \mathrm{HI} / 309 \mathrm{HI} / 336 \mathrm{HI} / \mathrm{RLG} 24 \mathrm{IYI} / 33 \mathrm{IYI} / \mathrm{SMC}$ $205 \mathrm{HI} / 307 \mathrm{YI} / 332 \mathrm{HI} / 350 \mathrm{HI} / 359 \mathrm{HI} / 36 \mathrm{IHI} / 402 \mathrm{HI} / 425 \mathrm{HI}$

## Literature:

ENG $240 \mathrm{YI} / 24 \mathrm{IYI} / 300 \mathrm{YI} / 330 \mathrm{HI} / 367 \mathrm{YI} / 400 \mathrm{YI} / 40 \mathrm{IYI} / 48 \mathrm{IHI} /$
FRE $420 \mathrm{HI} / 47 \mathrm{IHI} / G E R 429 \mathrm{HI} / \mathrm{ITA} 3 \mathrm{IIHI} / 3 \mathrm{I} 2 \mathrm{HI} / 320 \mathrm{HI} /$
$430 \mathrm{HI} /$ LAT I00YI/ NMC $255 \mathrm{HI} / 350 \mathrm{HI} / \mathrm{SMC} 322 \mathrm{HI} / 323 \mathrm{HI} /$
343YI/360HI/440YI/44IYI/ 450YI/ SLA 330YI/ SPA
$425 \mathrm{HI} / 450 \mathrm{HI}$

## The Arts:

FAH2I5HI/2I $6 \mathrm{HI} / 3 \mathrm{I} 6 \mathrm{HI} / 3 \mathrm{I} 8 \mathrm{HI} / 3 \mathrm{I} 9 \mathrm{HI} / 325 \mathrm{HI} / 326 \mathrm{HI} / 327 \mathrm{HI} /$ $328 \mathrm{HI} / 420 \mathrm{HI} / 42 \mathrm{IHI} / 424 \mathrm{HI} / 425 \mathrm{HI} / 426 \mathrm{HI} / 492 \mathrm{YI} / \mathrm{MUS} 208 \mathrm{HI} /$ NMC366YI/464HI/SMC302HI/344YI/358HI/422HI

## St. Michael's College Courses

Listed in this order:
Book and Media Studies
Celtic Studies
Christianity \& Culture
Mediaeval Studies
Other
See page 33 for Key to Course Descriptions
For Distribution Requirement purposes (see page 27), All SMC courses are classified as HUMANITIES courses, except JSV200HI, SMC27IHI,272HI, 344YI,47IHI, which are Social Science courses.

## Book and Media Studies Courses

SMC2I9YI Mass Media in Culture 52L, 26T and Society
Designed to acquaint students with the essential notions of media studies, and to promote a conscious utilization of contemporary media. Starting with the preliminary definitions of "media," "mass," and "communications," the student is invited to consider critically the cultural constructs created by modern media, from print to photography, filming,TV, computer and Internet.

## SMC228YI Books and Readers

 52LAn introduction to book and print culture and readership, from manuscripts to information technologies. Attention is given to topics such as the development of the printing press, illustrations, censorship, copyright, book clubs, and best-sellers. Visits to rare book collections are an integral part of the course.
Note: this course is not intended as a guide to self-publishing.

## SMC300HI Special Topics in Book and

 Media Studies IDesigned to provide for individual half-courses not already covered in the listed range of the Book and Media Studies Program offerings.
Prerequisite: Permission of the instructor
Recommended preparation: SMC2I9YI/SMC228YI
SMC30IHI Special Topics in Book and 26L Media Studies II
Various topics are taken up each year, the content of which depends on the instructor. Students should check the program brochure for details.
Prerequisite: Permission of the instructor
Recommended preparation: SMC2I9YI/SMC228YI
SMC3I4HI Media Revolutions
26L
A deeper examination of key cases in the development of media, such as the invention of movable type, the mechanization of the printing press, standardization of call number systems
(Dewey, LC, etc.), the advent of radio, television and internet.
Topics vary from year to year, according to the instructor.
Recommended preparation: SMC2I9YI/SMC228YI

## SMC3I5HI The Newspaper in Canadian 26L IOT Society <br> Through lectures, tutorials and fields trips, this course examines

 the origins and development of the English-language newspaper in Canada since the 18th century. Research projects focus on the historical newspaper collections of the University of Toronto libraries, the Toronto reference library, and the Archives of Ontario.Recommended preparation: SMC2I9YI/SMC228YI
SMC398HI Independent Study in Book and TBA

An independent research project to be proposed by the student and supervised by a full-time faculty member affiliated with the Book and Media Studies Program.
Prerequisite: SMC2I9YI; SMC228YI; enrolment in the Major program; approval of Program Director
SMC399YI Independent Study in Book and TBA Media Studies
An independent research project to be proposed by the student and supervised by a full-time faculty member affiliated with the Book and Media Studies Program.
Prerequisite: SMC 219YI; SMC228YI; enrolment in the Major program; approval of Program Director

## Celtic Studies Courses

SMCI4IYI Introduction to the Irish 52L, 26T Language
This course in Modern Irish Language is designed for learners with no prior knowledge of the language. The course is
intended to introduce students to and provide practice in the four language skills: listening, speaking, reading and writing.

## SMC240YI Celtic Culture Through 52L, 26T the Ages

The expression of Celtic culture in literature, history, folklore and myth from 600 B.C. to the present, with particular attention to the continuing Celtic contribution to Western culture.

## SMC24IYI Intermediate Irish Language 52L, 26T Studies

This course builds on SMC I4IYI Introduction to the Irish Language. It will provide further expansion of the four language skills: listening, speaking, reading and writing.
Prerequisite: SMCI4IYI
$\begin{array}{lll}\text { SMC242YI } & \begin{array}{l}\text { An Introduction to } \\ \text { Scottish Gaelic }\end{array} & \text { 52L, 26T }\end{array}$
An introduction to Scottish Gaelic language and culture. Students will master fundamentals of reading, writing, and the basics of grammar and will begin to speak Gaelic. Proverbs, poetry, songs and folktales introduce students to the language, literature and folklore of Gaelic Scotland and immigrant North America. No prior knowledge of the language is required.
SMC243YI Modern Welsh 52L, 26T
An introductory course intended to provide a basic speaking and reading knowledge of Modern Welsh. Open to students with no prior experience of Welsh.
SMC33IYI Advanced Irish Language 52L
Speaking, writing and reading competence is emphasized in this course. This course concentrates on the study of modern Irish literary texts, both poetry and prose and advanced translation into the Irish language.
Exclusion: SMC34IYI
Prerequisite: SMCI4IYI, 24IYI or permission of the instructor
SMC333HI/ Special Topics in Celtic Studies III 26S
$\mathbf{3 3 4 H I} \quad$ (formerly SMC408HI/409HI)
Various topics are taken up each year, the content of which
depends on the instructor. Students should check the program brochure for details.
Prerequisite: Permission of the instructor.
Exclusion: SMC $408 \mathrm{HI}, 409 \mathrm{HI}$
SMC335YI Special Topics in Celtic Studies I (formerly SMC4IOYI)
Topic varies from year to year, depending on the instructor. Students should check the program brochure for details.
Prerequisite: Permission of the instructor.
Exclusion: SMC4IOYI

## SMC342YI Literature and Politics: Ireland, Scotland and Wales

This course examines the way in which modern Irish, Scottish and Welsh writers have responded to the pressures of anglicization and modernization, and discusses literary reactions to social, ethnic and gender issues in contemporary culture.

## SMC343YI Celtic Literature and Society 52L 500-1500

Literature in relation to the structure and development of the insular Celtic society that produced it; the Mythological, Ulster, Fenian, and Historical Saga cycles; voyages, visions, religious, lyric, and gnomic poetry, British heroic poetry, medieval Welsh narratives both secular and religious. Texts studied in translation.

## SMC344YI Celtic Archaeology and Art <br> 52L

The art and archaeology of the Celtic peoples, with special reference to settlement patterns in Great Britain and Ireland. This is a Social Science course.
SMC345YI From Tribalism to Feudalism: 52L Early Celtic History
The political and social development of Ireland, Scotland, Wales, and Brittany from the 5th to the 12 th centuries.

## SMC346YI Celtic Folklore and Music 52L

An examination of the relationship between Celtic mythology and the ancient art of storytelling, and an exploration of the place of traditional music in modern society.

SMC348YI Modern Irish History 52L
This course explores ethno-religious conflict and Anglo-Irish relations between I79I and I985. Special attention is paid to the rise of the United Irishmen and the Orange Order during the 1790 s, the domestic and international repercussions of the Famine, the political revolution of 1916-23, and the troubles in Northern Ireland.

## SMC349HI Seamus Heaney and Irish 26L Literary Tradition

This course examines the poetry and other writings of Seamus Heaney against the background of a modern tradition of Irish writing. Special attention is paid to issues of nationalism, the tensions of social and historical involvement, the place of Gaelic tradition and translation in the creation of a poet whose scope and audience is international.
Recommended preparation: SMC342YI, ENGI40YI
SMC350HI Celtic Spirituality 26L
The religious culture of the early and mediaeval Celtic Church as manifested in the material and written record; its significance for contemporary religious movements. Texts studied include the Patrician dossier, early monastic Rules and Liturgies, selected hagiographical, homiletic, devotional and lyric texts.

## SMC35 I HI The Blasket Island Writings <br> 26L

The Blasket Islands lie off the southwest coast of Ireland. This course will examine the important "library" of books written and orally recorded by the islanders from the 1920s onwards. Special attention will be paid to "The Island Man";"Peig" and "Twenty Years a Growing". Texts studied in translation.
SMC352YI Modern Gaelic Literature 52L
A study of the Gaelic literature of Ireland from the seventeenth century to the present within its poetical and historical context. Texts of poetry, prose and historical writings from this era will be examined, concluding with a reading of contemporary writers. Texts will be studied in translation. Exclusion: SMC347YI

SMC353YI Contemporary Irish Writing 52L
An introduction to contemporary Irish writing, in its social context, in both Irish and English languages. Among writers studied are Paul Muldoon, Eavan Boland, John McGahern, Michael Longley, Nuala Ni Dhomhnaill, Cathal O Searcaigh, Roddy Doyle, Caitlin Maude, and Alan Titley. Irish language authors are studied in translation.

## SMC354YI Celtic Cinema 52L, 52T

An introduction to the films of Ireland, Scotland and Wales, as they relate to representations of Celtic identity and the development of national cinemas.

## SMC355HI Modern Welsh History

26L
An examination of economic, political and social change in Wales from the eighteenth century to the present. Special attention is paid to class conflict in the coalfields, rural-urban relations, language issues, and the search for national identity.

## SMC356HI The Continental Celts

 26LThe course examines the early history of the Celtic peoples in Europe from their first appearance in the material culture of prehistoric Europe to their eventual disappearance as a political power in the first century of Roman conquest.
Recommended preparation: SMC240YI

## SMC395YI Independent Study in Celtic

 StudiesA research project chosen by the student in consultation with an instructor and approved by the Program Co-ordinator. Arrangements for the choice of topic and supervisor must be completed by the student before registration.
Prerequisite:Approval of Instructor and Program Director
SMC396HI $\begin{aligned} & \text { Independent Study in Celtic TBA } \\ & \text { Studies }\end{aligned}$
A research project chosen by the student in consultation with an instructor and approved by the Program Co-ordinator. Arrangements for the choice of topic and supervisor must be completed by the student before registration.
Prerequisite: Approval of Instructor and Program Director
SMC4IIHII Advanced Topics in Celtic Studies II 26S

## 4I2HI

Various topics are taken up each year, the content of which depends on the instructor. Students should check the program brochure for details.
Prerequisite: Permission of the instructor
SMC4I3HI The Irish in Canada
This course explores the history of Irish migration and settlement in Canada with a special emphasis on political, social, economic and religious themes.
Exclusion: SMC4IIHI (93-94), 4I2HI (94-95)

## SMC4I4HI The Scots in Canada

This course explores, by means of the historical method, Scottish migration and settlement in Canada, with special emphasis on religious, cultural, political, social and economic themes.

## SMC416HI Irish Nationalism in Canada and

 the United StatesThis course examines the origins, character and development of Irish Nationalism in Canada and the United States. Special attention is paid to the United Irishmen in the United States, the Young Ireland exiles and the Fenian movement in North America.
Prerequisite: Permission of instructor

## SMC440YI Middle Welsh Language 52L and Literature

An introduction to the Welsh language and literature from the 10th to the 14th centuries.
Prerequisite: Permission of instructor
SMC44IYI Old and Middle Irish 52L
An introduction to Old and Middle Irish language and literature from the 7th to the IIth century.
Prerequisite: Permission of instructor

SMC450YI Celtic Mythology
52L
This course covers the range of the Celtic mythological record from all the Celtic areas through an examination of the archaeological, inscriptional and textual sources. A critical evaluation is offered of various relevant mythic approaches. Exclusion: SMC340YI
Prerequisite: RLGI00YI/SMC240YI, and permission of the instructor
SMC45IYI Senior Essay in Celtic Studies TBA
A scholarly project chosen by the student in consultation with an instructor and approved by the Program Coordinator. Arrangements for the choice of topic must be completed by the student before registration.
Prerequisite: Permission of instructor

## Christianity and Culture Courses

SMCI03YI Catholicism 52L, 26T
An introduction to Catholic Christianity, to its history, institutions, and theology. The second part of the course examines the renewal effort of Vatican II and offers a contemporary Catholic reading of the Creed.
SMC200YI The Christian Imagination 52L, 26T
The purpose of this course is to introduce students to the depth and breadth of the imagination in the western Christian tradition. We shall explore components of the distinctively Christian imagination, as well as its expression in various media, including the visual and plastic arts, literature, film, and music.

## SMC20IHI Christianity and Literature <br> 26L, I3T

 (formerly Christian Classics)An exploration of major Christian themes, such as redemption and sacrifice, in works of ancient and modern literature. Includes an examination of different genres (the novel, poetry, drama), written for differing times and cultures.

## SMC203YI Christianity Encounters the 52L, 26T Secular World

Issues raised by Christianity's encounter with secular culture, and solutions proposed by the tradition: involvement in political structures, social movements, ethnic communities, and changing world views.

## SMC204HI Christianity and Asia 26L, I3T

A study of key elements in the encounter of Christianity and Asia: e.g. the controversy over Chinese rites; Korea's conversion by lay philosophers; the development of Filipino folk Catholicism and its impact on politics; the influence of Indian thought on recent Western theologians.

SMC205HI | Varieties of Christian 26L, I3T |
| :--- |
| Experience |

Exploration of the variety of forms which Christian personal experience has taken in the course of history (martyrdom, mysticism, monasticism, sanctification of ordinary life, etc.) in order to appreciate their variety, complexity, and deep unity.

## SMC206HI Christianity and Music 26L, I3T

The various roles given music in Christian tradition and the impact of Christianity on Western music. Case studies from Gregorian chant to the present illustrate major issues (sacred vs. profane, acceptable styles or instruments, text and music, emotion and rationalism) to provide a critical vocabulary applicable to present works. Some background in music is required.
Recommended preparation: SMC200YI/203YI

SMC207HI Christianity in Latin America 26L, 13T
The development of Christian communities in Latin America with an emphasis on such themes as the Spanish Conquista, missions, church-state relations, popular religious culture, and the emergence of Liberation Theology.
Recommended preparation: SMC203YI

## SMC208YI Major Christian Thinkers 52L, 26T

An introduction to the Christian intellectual tradition through a study of key figures representing a variety of historical periods, from the patristic through the medieval to the modern and contemporary. The selected authors discuss a range of religious, intellectual and human issues from basic Christian beliefs to the challenges of modern and postmodern cultures.
SMC209HI Christianity in Africa 26L, I3T
The social, theological, and institutional development of Christian communities in Africa, including the birth of early churches in North Africa, missionary activity, popular religion, and the emergence of new Christian movements in the postcolonial period.
Recommended preparation: SMC203YI
SMC2I5HI Varieties of Christian Community 26S
Christian history has been characterized by an enduring and fruitful search for forms of religious community. This course surveys some communal attempts to express Christianity, monasticism, forms of common life for clerics, the Mendicants, lay confraternities, religious orders, and contemporary lay movements.
SMC216YI Ritual and Worship 52L, 26T
An introduction to Christian ritual and worship, in crosscultural and ecumenical perspective. Biblical roots and historical development of the Christian sacraments, especially baptism and the Eucharist. Contemporary Catholic perspectives on worship in a secular and multicultural world.
SMC2I7HI Literature and the Christian 26L, I3T
An exploration of connections between a child's moral development and literature in Christian traditions. We examine literary, historical and philosophical developments appropriate to the child's imagination. The course will include the study of poems, catechetical materials, novels and other texts written for children.
SMC230YI Christianity and Science 52L, 26T
The course examines the emergence of the physical sciences within Christian culture. It also traces broad historical developments, such as the rise of technology and the acceptance of empirical observation as a method of inquiry, and their impact on Christian faith.
Exclusion: RLG23IYI
SMC302HI Christianity and Symbols 26L, I3T
The originality of Christian symbolism is explored through texts, images, and other media. We examine theories of symbolism, then explore the use of Christian symbolism and symbolic patterns in ancient, medieval, and modern art, architecture, literature, and film.
SMC304HI Christianity, Law and Society 26L/S
An examination of Canon Law; the process by which it came into being, and its impact on contemporary culture. Premises and techniques of ecclesial law-making are compared to those of other systems of legislation. Specific sections of the Code of Canon Law are examined.
Recommended preparation: SMC203YI

## SMC305HI Christianity and Popular Culture 39L

An examination of both overt and covert representations of Christian ideas in contemporary popular media. We examine the ways in which Christian themes have been appropriated and subverted in mass media, while also examining the innovative ways these themes, such as redemption, sacrifice, vocation, and hope, are presented anew.
Recommended preparation: SMC200YI
SMC306HI Christianity and New
26L, I3S

## Technologies

Technology represents a significant challenge to Christian traditions. This course will explore Christian responses to technologies such as genetic engineering, cyberspace, and life extension. Students will examine the metaphysical perspectives and metaphorical images that the Christian tradition presents to respond to the claims of unbridled technology.
Exclusion: RLG 338YI
Recommended preparation: SMC 230YI

## SMC307Y I

## Scripture in Christian

52L, 26T
An introduction to the place and meaning of the Bible within the Christian tradition; the practice of biblical interpretation in the patristic, medieval and modern periods; a contemporary reading of one of the Gospels and of a letter of Paul.
SMC308HI Marriage and the Family in 26L/S the Catholic Tradition (formerly Marriage and the Family in Canon Law)
A close reading of the Code of Canon Law touching on the themes of marriage and the family; relationship to other fundamental Church statements (e.g. Familiaris Consortio); examination of issues raised by opposition between church teaching and other views.
Recommended preparation: SMC203YI/304HI
SMC309HI Christianity, Reason and 26L, I3T Revolution
This course explores developments in the relations between the Catholic Church and the states of Western Europe and America from the Enlightenment to the present. Of particular concern is Catholicism's response to the political theories of the Enlightenment, the secularization of the state and social justice issues.
Recommended preparation: SMC203YI/HIS24IHI

| SMC3IOHI | The Catechism of the <br> Catholic Church |
| :--- | :--- |

Introduces students to the Catechism of the Catholic Church (1994) and its antecedents. After an historical survey of religious instruction in the Church, the students will engage in a close reading of selected sections of the Catechism of the Catholic Church.
SMC3IIHI Why the Church 26S
The Catholic Church claims to be the continuation of the event of Christ in history, the guarantor of the authenticity of each person's encounter with Christ, and the means by which His memory may be cultivated. The course examines the reasons for these claims and the forms they have taken.
Recommended preparation: SMCI03YI/200YI/20IHI, $205 \mathrm{HI} / 216 \mathrm{YI}$

## SMC3I2HI Catholicism and Education

The Catholic Church has developed a distinctive approach to the pedagogical enterprise. This course explores aspects of this
approach by an examination of canonical legislation and other texts published by ecclesiastical authorities and their application in Canada.

## SMC3I3HI Catholic Education in Ontario 26L

An historical appraisal of the evolution of Catholic schools, universities, and catechetical education in Ontario. Special emphasis is placed on the evolution of Ontario's separate school system.

## SMC320HI The Catholic Church in Canada 26L (formerly SMC 420HI)

An exploration of the historical development of Catholic communities and institutions in all regions of Canada since the 16th century. Emphasis placed on themes of mission, churchstate relations, ethnicity, belief and practice, social justice, gender, and secularization.
Exclusion: SMC 420HI

## SMC32IHI The Catholic Church and 26S Canadian Law

The Church's self-understanding generates interesting problems in her relations with the civil societies in which she lives. These problems are often fruitful and leaves marks in the legislation of each of these societies. The proposed course will assess the extent to which this has been true in Canada, from the earliest days of European expansion until the present. After an historical introduction regarding the legal status of the Church in French and post-conquest Canada, the proposed course will study the current legal treatment of Church activity, institutions, and property. The legal treatment of criminous clerics will also be examined.
Recommended preparation: SMC203YI
SMC330YI Christ in Christian Tradition 52L, 26T
Faith in Christ is central to Christianity. This course examines both classical formulations of that faith and Enlightenment critiques of them. It introduces students to contemporary rethinking of christology in the light of modern science and philosophy, comparative religion, feminism, and liberation movements.
SMC332HI Apocalypse and Millennium 26L (formerly SMC 402HI)
The study of past outbursts of Christian interest in the millennium theme, and the end of the world, modern manifestations of this trend, and the implications of its contemporary revitalization at the dawn of the third millennium.
SMC362YI Intercordia 26S 26P
Service learning course in social justice and international development. Seminars in the Winter term and international service with Intercordia Canada between May and July. There will be additional costs to students associated with this program. Duration is January to August; all add/cancel/refunds deadlines as per a regular $S$ course.
Prerequisite: interview process prior to enrolment Recommended preparation: SMCIO3YI/SMC203YI/SMC205HI
SMC370HI Christianity and the Life Sciences 26L/S Episodes and issues in the development of the life sciences in relation to fundamental Christian beliefs concerning nature, man and God: behaviour and intelligence, gender, genetics and the manipulation of life, creation/evolution controversy, etc. Prerequisite: Four university courses

## SMC37IHI Faith and Physics

26L/S
The complex interplay between religious belief, culture, and the emergence of modern physical theory: rise and fall of mechanistic theories, relativity, particle physics and models of the Universe, Big Bang theory and Black Holes, etc.
Prerequisite: Four university courses
SMC390YI

## Independent Studies in Christianity and Culture

A concluding course in Christianity and Culture, providing an opportunity to synthesize insights acquired during the course of the program (enrolment subject to availability of a supervisor). Prerequisite:Written approval of Program Director

| SMC39IHI | Independent Studies in <br> Christianity and Culture <br> Advanced Topics in <br> Christianity and Culture I |
| :--- | :--- |
| SMC400HI TBA |  |
| Prerequisite:Two courses in Christianity and Culture |  |
| SMC40IHI $\quad$Advanced Topics in <br> Christianity and Culture II |  |
| Prerequisite:Two courses in Christianity and Culture |  |

SMC4I8HI Methods in Biblical Studies II 26L, I3T Introduction to the major methods and issues in New Testament interpretation: textual criticism; the world of the New Testament; the composition, structure and theologies of the Synoptic Gospels; the Jesus of History and the Christ of Faith.

## Prerequisite: SMC307YI

SMC4I9HI Religious Pluralism and 26S the Church
This course will examine Christian responses to religious pluralism, focusing particularly upon twentieth-century developments in comparative theology, theology of religions, and inter-religious dialogue. Although the course will focus on examples from the context of post-Vatican II Catholicism, students will have opportunities to study comparable developments outside this tradition.
Prerequisite: Completion of 10 full-course credits
Recommended preparation: SMCIO3YI/SMC330YI
SMC42IHI Jews and Judaism in $\quad$ 26S
A seminar devoted to examining the changing representation of Jews and Judaism within Christian traditions over the past two thousand years.
Prerequisite: Completion of 10 full-course credits Recommended preparation: SMC200YI

SMC422HI | Sacred Space in the Christian |
| :--- |
| Tradition |

An examination of the development of sacred space in the early Church, reflection upon its place in the imaginative landscape of the European Middle Ages, and discussion of its implications for the understanding of space and place in our own culture.

Prerequisite: One course in the History of Christianity; completion of 10 full-course credits
Recommended preparation: SMC200YI
SMC423HI Topics in the Theology of Culture I $\mathbf{2 6 S}$
A seminar course engaging in theological reflection on and response to the shifting cultural realities of the twenty-first century. Topics for close examination may include: postmodernity, home and homelessness, and mass popular culture. Prerequisite: Completion of 10 full-course credits
Recommended preparation: SMC200YI/208YI/305HI/330YI/ 426 HI
SMC424HI Topics in the Theology of Culture II 26 S
A seminar course engaging in theological reflection on and response to the shifting cultural realities of the twenty-first century. Topics for close examination may include: postmodernity, home and homelessness, and mass popular culture. Prerequisite: completion of 10 full-course credits
Recommended preparation: SMC200YI/208YI/305HI/330YI/ 426 HI

## SMC425HI Uses of the Bible in the Middle Ages

An examination of the use of the Bible in the mediaeval period (500-I500) as source of motifs in art and architecture, provider of stories for poetry and drama, authority in legal and political debate, and tool for teaching and preaching.
Prerequisite: One course in mediaeval history, art or literature; knowledge of the biblical text; completion of 10 full-course credits

SMC426HI The Social Justice Seminar 26S
A research seminar to explore the foundational principles and historical applications of Catholic social teaching since Rerum novarum. Special emphasis placed on scriptural texts, magisterial documents, and contemporary case studies. Integral to the course is a major paper based on primary source research.
Prerequisite: SMC203YI/I03YI; completion of 10 full-course credits
Recommended preparation: SMC309HI/RLG336HI

## SMC427HI Public Justice Advocacy Seminar 26S

A course which explores, through lectures, seminar meetings and an agency placement, the ways in which Christian social teaching is translated into public advocacy and policy.
Preresquite: completion of 10 full-course credits
Recommended preparation: SMC203YI or SMC309HI or SMC426HI

SMC428HI The Spiritual in Modern Art 26L
An examination of key moments and figures in the recent history of the visual arts in Western culture and especially in Canada in which religious and spiritual themes surface in new and surprising ways. The course includes a study of works in the Donovan Collection at St. Michael's College.
Recommended Preparation: SMC 200YI
SMC429HI Topics in Comparative Theology 26S In the $20^{\text {th }}$ and $21^{\text {st }}$ centuries, religious thinkers increasingly cross religious boundaries in theological reflection. Each year, this seminar will focus on one topic, studied in confessional and comparative perspective, or on two or three major figures in the discipline of comparative theology. Sample topics include: salvation, mission, God, incarnation.

## Christianity \& Culture: Major Program in Religious Education Courses <br> JSV200HI Communication and Conflict 26L <br> This course aims to develop an understanding of social conflict and cultural diversity. How does conflict act as a catalyst for change? What do socio-cultural, cognitive, and motivational approaches teach us about conflict? Topics include: effects of conflict, human rights principles, cross-cultural understanding. Prerequisite: Enrolment in Christianity and Culture CTEP Major or Victoria College CTEP Education Minor

SMC27IHI Equity and Diversity in Education 26L
The course focuses on raising awareness and sensitivity to equity and diversity issues arising in schools and cultural communities. It examines how oppression works, and how cultural and educational resources may be brought to bear on reducing oppression and improving equity. The course includes a 20 -hour field experience.
Prerequisite: Enrolment in Christianity and Culture CTEP Major Exclusion:VIC260HI

SMC272HI Child and Adolescent 26L

## Development in Education

The course will provide an overview of developmental psychology from early childhood to late adolescence in relation to education, including: cognitive, social, emotional, moral, physical, religious and language development. It will examine various influences (family life, schooling and culture, etc.). This course includes a 20 -hour field experience.
Prerequisite: Enrolment in Christianity and Culture CTEP Major Exclusion:VIC26IHI

## SMC47IHI Internship

Arranged by each student in consultation with faculty, the internship enables teacher candidates to integrate, extend and deepen their learning experiences in a way not otherwise available in the program. Those wishing to take this course must have their program approved by the Program Director. Prerequisite: Enrolment in Christianity and Culture CTEP Major

## Mediaeval Studies Courses

SMC2IOYI The Mediaeval Tradition 52L, 26T
This course provides an introduction to the thought and culture of the European Middle Ages. Students are introduced to the important monuments of mediaeval History, Thought, Literature, and Art, and follow some of the common threads that run through all these disciplines. The course explores some of the classical antecedents and chief expressions of mediaeval life and thought.

## SMC2IIHI The Middle Ages and 26L, I3T

 the MoviesThis course examines the ways mediaeval themes have been presented in the cinema over the last century by taking exemplary films from different countries and epochs. The purpose is to explore each on three levels: the mediaeval reality, the subsequent legendary or literary elaboration, and the twentieth-century film rendition, regarded equally as work of art, ideology and economic product.

## St. Michael's College

## SMC322HI <br> Mediaeval Latin I <br> (formerly LAT322HI)

A survey of the prose and poetry of the Middle Ages with emphasis on the linguistic features of mediaeval Latin.
Prerequisite: LAT202HI

## SMC323HI Mediaeval Latin II <br> (formerly LAT323HI)

Study of a wide variety of mediaeval Latin texts. Prerequisite: LAT202HI

## SMC357HI The Mediaeval Child

26L
This course examines birth, nourishment, education and death of children in the Middle Ages. What was it like to be a mediaeval boy or girl? What kind of relationship did children have with their parents, with their teachers, or with other children? Primary sources are examined and interdisciplinary methods employed. Recommended preparation: SMC2IOYI/HIS220YI

## SMC358HI The Mediaeval Book

This course examines the most salient aspects of mediaeval manuscript culture. We will study, first, how the parchment for books was folded, pricked, ruled and bound, and second, what scripts were employed in the different codices. We will also examine the various types of books made in the Middle Ages and the challenges they pose to modern scholars.
Recommended preparation: LATIOOYI;SMC2IOYI or a course in mediaeval history.

## SMC359HI Mediaeval Theology <br> 26L

An introduction to the discipline of theology as taught in the mediaeval schools. Building on a basic knowledge of Christian scriptures and of philosophical argument, this course will offer an organic exposition of mediaeval theology, together with an introduction into the scientific method of theological investigation as practised in the Middle ages.
Recommended preparation: SMC2IOYI

## SMC360HI Vernacular Literature of the Middle Ages <br> (formerly SMC420HI)

This course surveys mediaeval vernacular literature within the cultural context of Europe and considers the development of different literary genres such as epic, romance and lyric. Relations between vernacular literatures, and between vernacular and latin literature are also studied.
Recommended preparation: SMC2IOYI
Exclusion: SMC420HI

## SMC36IHI Mediaeval Law (formerly SMC405HI)

Mediaeval jurisprudence combines the high technical quality of Roman law with the requirements of Christianity. The seminar provides an overview of the development of mediaeval learned jurisprudence; select texts from Roman and canon law, with their glosses, are read in order to explore more specifically the methods and concerns of mediaeval jurists.
Recommended preparation: HIS 220YI/SMC 210YI
Exclusion: SMC405HI
SMC402HI Mediaeval Canon Law 26S
The rise of the science of canon law is one of the great intellectual developments of the High Middle Ages. In the proposed course, the aims and techniques of the canonical jurists would be explored by a close reading of their normative texts and glosses.
Recommended preparation: HIS220YI/SMC203YI/SMC2IOYI

SMC403HI The Mediaeval Church 26S
This seminar explores the development of some of the institutions of mediaeval Christendom, such as guilds, the University and the
Papacy, in relation to social and intellectual movements of the age. Recommended preparation: SMC2IOYI/HIS220 YI

SMC406HI Mediaeval Seminar II 26S, I3T
A fourth-year seminar on a topic to be determined annually. Prerequisite: Permission of the instructor Recommended preparation: SMC2IOYI or other medieval courses
SMC407YI Mediaeval Seminar I
52S, 26T
A fourth-year seminar on a topic to be determined annually.
Prerequisite: Permission of the instructor
Recommended preparation: SMC2IOYI or other mediaeval courses

## SMC490YI Senior Essay in Mediaeval Studies TBA

 A scholarly project chosen by the student in consultation with an instructor and approved by the Program Co-ordinator. Arrangements for the choice of topic and supervisor must be completed by the student before registration.
## Other St. Michael's College Courses

SMC299YI Research Opportunity Program
Credit course for supervised participation in faculty research project. See page 47 for details.

## Slavic Languages and Literatures

## Faculty

## Professors Emeriti

C.H. Bedford, MA, Ph D
G. Bisztray, MA, Ph D
B. Budurowycz, MA, BLS, Ph D
L. Dolezel, Ph D
K.A. Lantz, MA, Ph D
R. Lindheim, MA
R.H. Marshall, Ph D
N. Pavliuc, MA, Ph D
C.V. Ponomareff, MA, Ph D
R.D.B. Thomson, MA, D Phil
N.N. Shneidman, MPHE, MA, Dip REES, Ph D

Professor and Chair of the Department
C. Kramer, MA, Ph D

Associate Professor and Graduate

## Coordinator

T. Trojanowska, MA, Ph D

Assistant Professor and Undergraduate Coordinator
T. Koznarsky, Ph D

## Professors

C.J. Barnes, MA, Ph D
D.T. Orwin, MA, Ph D

## Associate Professors

V.Ambros, MA, Ph D
R. Bogert, MA, Ph D
L. Livak, MA, Ph D
J. Schallert, Ph D
M. Tarnawsky, Ph D

## Assistant Professors

Julia Mikhailova, MA, Ph D
S. Young, MA, Ph D

For over one thousand years the countries of the Slavic world have played a prominent role in international life, and have provided our civilization with numerous writers, musicians, philosophers, religious and political thinkers, and scientists of note. The richness of the Slavic cultures has a special significance for Canada, since the vast influx of Slavs, which began in the last century, has contributed greatly to the Canadian cultural mosaic.

The Department of Slavic Languages and Literatures offers an extensive range of courses in Russian, Polish, Ukrainian, Czech and Slovak, Croatian, Serbian, and Macedonian languages and literatures, as well as in Slavic linguistics. Within this range there are courses suitable for inclusion in a wide variety of programs of study, whether or not the student has studied any Slavic language previously. Some students may specialize in Slavic Languages and Literatures, i.e. Russian, Polish or Ukrainian (see Programs of Study). Others may simply wish to gain a working knowledge of Russian or another Slavic language to aid their reading of important material in another field. Language study emphasizes small instructional groups, with some laboratory or conversational practice, and the use of literary materials.

Courses in the literatures and cultures of various Slavic countries explore the artistic, intellectual, and social currents of their civilizations, trace the literary history of each country, and examine the works of major authors. To encourage an awareness of the significance and pertinence of Slavic literatures and cultures, many of our courses are offered in translation.

The growing importance of Eastern Europe in contemporary affairs has had the effect of making academic study of this area especially lively and relevant. The student whose interest in the Russian or East European world is political, historical, or sociological can specialize in Russian and East European Studies, or pursue a course in Political Science, History, or Sociology, and at the same time take language courses, and perhaps selected courses in literature, in this Department. Students planning to specialize in Economics, Psychology, Mathematics, or any number of other fields, who have a special interest in the Russian or East European area, will find an advanced knowledge of Russian or of another Slavic language an important intellectual and professional asset.

Students intending to take a Program offered by the Department are asked to study carefully the Programs of Study and are urged to begin their language training as soon as possible. A Departmental brochure is available on request.

Undergraduate Secretary:
Professor Joseph Schallert, I2I St. Joseph Street, Room 419, joseph.schallert@utoronto.ca, 416-926-I300, ext. 3246.

Web site: www.utoronto.ca/slavic

## Slavic Languages and Literatures Programs

Enrolment in the Slavic Languages and Literatures programs requires the completion of four courses; no minimum GPA required.

## Croatian And Serbian Studies (Arts program)

## Major program:

(6 full courses or their equivalent)
I. SLA 307 Y I or SLA 316 YI . Prerequisite for SLA 307 Y I is SLA 207YI or equivalent knowledge. Prerequisite for SLA 316 YI is SLA 237YI or equivalent knowledge. SLA207YI or SLA237YI, if taken, also count toward the program requirements.
2. SLA 217 Y I or SLA 227 Y I
3. A minimum of two full courses or equivalent from: SLA $2 \mathrm{I} 7 \mathrm{Y}, 227 \mathrm{Y}$, $327 \mathrm{HI}, 337 \mathrm{HI}, 347 \mathrm{HI}, 407 \mathrm{HI}, 4 \mathrm{I} 7 \mathrm{HI}$, 427HI
4. Additional courses needed to satisfy requirements. Students may choose SLA 202 HI , SLA 330 Y I, or courses related to Croatian and Serbian studies offered in other departments and approved by the undergraduate coordinator of the Slavic Department.
Minor program:
(4 full courses or their equivalent)
Four approved courses from the offerings indicated in the major program above.

## Slavic Languages and Literatures

## Czech And Slovak Studies (Arts program)

## Major program:

(6 full courses or their equivalent)
First Year:
SLA 205YI
Higher Years:

1. SLA 305YI
2. Four courses from: HIS $25 \mathrm{IYI} ; \mathrm{SLA} 2 \mathrm{I} 5 \mathrm{HI}, 225 \mathrm{HI}, 404 \mathrm{HI}$, $405 \mathrm{HI}, 425 \mathrm{YI}, 435 \mathrm{HI}, 445 \mathrm{HI}, 455 \mathrm{HI}, 465 \mathrm{HI}, 475 \mathrm{HI}$

## Minor program:

(4 full courses or their equivalent)
I. SLA $205 \mathrm{YI} / 305 \mathrm{YI}$
2. Three courses from: HIS 25 I YI ; SLA $2 \mathrm{I} 5 \mathrm{HI}, 225 \mathrm{HI}, 305 \mathrm{Y}$, $404 \mathrm{HI}, 405 \mathrm{HI}, 425 \mathrm{YI}, 435 \mathrm{HI}, 445 \mathrm{HI}, 455 \mathrm{HI}, 465 \mathrm{HI}$, 475 HI

## Polish Language And Literature (Arts program)

## Major program:

(6 full courses or their equivalent)
First Year:
SLA 106YI
Higher Years:
I. SLA $206 \mathrm{YI}, 216 \mathrm{YI}, 306 \mathrm{HI}, 336 \mathrm{HI}$
2. Two courses from: SLA $226 \mathrm{HI}, 346 \mathrm{HI}, 356 \mathrm{HI}$, $406 \mathrm{YI} / 406 \mathrm{HI}, 4 \mathrm{I} 6 \mathrm{Y}, 424 \mathrm{HI}, 436 \mathrm{HI}, 446 \mathrm{HI}, 476 \mathrm{HI}$

## Minor program:

(4 full courses or their equivalent)
I. SLA $106 \mathrm{YI} / 206 \mathrm{YI}, 216 \mathrm{YI}$
2. Two other Polish offerings, including at least one 300+ series course
Polish: see also Modern Languages And Literatures; Linguistics And Languages

## Polish Studies (Arts program)

## Major program:

(7 full courses or their equivalent)
I. A sequence of two of the following language courses, depending on the student's skill level:
a) SLA 106 Y I, 206YI;
b) SLA $206 \mathrm{YI}, 306 \mathrm{HI} / 336 \mathrm{HI}$
c) SLA $306 \mathrm{HI} / 336 \mathrm{HI}, 346 \mathrm{H} / 356 \mathrm{HI} / \mathrm{SLA} 216 \mathrm{Y} \mathrm{I}$
3. HIS 353 YI
4. Three courses chosen from groups $A$ and $B$ below:

## Group A: Slavic

SLA $226 \mathrm{HI}, 346 \mathrm{HI}, 356 \mathrm{HI}, 406 \mathrm{YI} / 406 \mathrm{HI}, 4 \mathrm{I} 6 \mathrm{YI}, 436 \mathrm{HI}$,
$446 \mathrm{HI}, 476 \mathrm{HI}$
Group B: History
HIS $25 \mathrm{IYI}, 433 \mathrm{HI}, 46 \mathrm{IHI}$

## Minor program:

(4 full courses or their equivalent)
I. A sequence of two of the following language courses, depending on the students skill level:
a. SLA I06YI, 206YI;
b. SLA $206 \mathrm{YI}, 306 \mathrm{HI} / 336 \mathrm{HI}$;
c. SLA $306 \mathrm{HI} / 336 \mathrm{HI}, 346 \mathrm{HI} / 356 \mathrm{HI}$
2. SLA 216 Y I
3. HIS 353YI

## Russian Language And Literature (Arts program)

## Specialist program:

(9 full courses or their equivalent including at least one full course at the 400-level)
First Year:
SLA I00YI
Higher Years:
I. SLA $220 \mathrm{YI}, 240 \mathrm{HI} / 24 \mathrm{IHI}, 320 \mathrm{YI}, 339 \mathrm{HI}, 340 \mathrm{HI}, 420 \mathrm{YI}$
2. Three courses from: SLA $234 \mathrm{HI}, 244 \mathrm{HI}, 250 \mathrm{Y}$, 252 HI , $302 \mathrm{H}, 3 \mathrm{IIHI}, 3 \mathrm{I} 2 \mathrm{HI}, 3 \mathrm{I} 4 \mathrm{HI}, 3 \mathrm{I} 5 \mathrm{HI}, 3 \mathrm{I} 7 \mathrm{HI}, 32 \mathrm{IYI}, 330 \mathrm{YI}$, $33 \mathrm{IHI}, 332 \mathrm{HI}, 343 \mathrm{HI}, 344 \mathrm{HI}, 35 \mathrm{IH}, 367 \mathrm{HI}, 370 \mathrm{HI}, 402 \mathrm{HI}$, $403 \mathrm{HI}, 4 \mathrm{I} 5 \mathrm{HI}, 420 \mathrm{YI}, 423 \mathrm{HI}, 433 \mathrm{HI}, 440 \mathrm{HI}, 44 \mathrm{IHI}$, $449 \mathrm{HI}, 450 \mathrm{H}, 45 \mathrm{IHI}, 452 \mathrm{YI}, 460 \mathrm{HI}, 46 \mathrm{HI}, 462 \mathrm{HI}, 464 \mathrm{HI}$

## Major program:

(7 full courses or their equivalent)
First Year:
SLA I00YI
Higher Years:
I. SLA $220 \mathrm{YI}, 240 \mathrm{HI} / 24 \mathrm{IHI}, 320 \mathrm{YI}, 339 \mathrm{HI}, 340 \mathrm{HI}$
2. Two courses from: SLA $234 \mathrm{HI}, 244 \mathrm{HI}, 250 \mathrm{YI}, 252 \mathrm{HI}$, $302 \mathrm{HI}, 3 \mathrm{IIHI}, 3 \mathrm{I} 2 \mathrm{HI}, 3 \mathrm{I} 4 \mathrm{HI}, 3 \mathrm{I} 5 \mathrm{HI}, 3 \mathrm{I} 7 \mathrm{HI}, 32 \mathrm{IYI}$, $330 \mathrm{YI}, 33 \mathrm{IHI}, 332 \mathrm{HI}, 343 \mathrm{HI}, 344 \mathrm{HI}, 35 \mathrm{IH}, 367 \mathrm{HI}, 370 \mathrm{HI}$, $402 \mathrm{HI}, 403 \mathrm{HI}, 4 \mathrm{I} 5 \mathrm{HI}, 420 \mathrm{YI}, 423 \mathrm{HI}, 433 \mathrm{HI}, 440 \mathrm{HI}$, $44 \mathrm{IHI}, 449 \mathrm{HI}, 450 \mathrm{H}, 45 \mathrm{HI}, 452 \mathrm{YI}, 460 \mathrm{HI}, 46 \mathrm{HI}, 462 \mathrm{HI}$, 464HI
NOTE: Students with OAC Russian or equivalent will take the language sequence SLA 220YI, 320YI, 420YI.

## Minor program:

(4 full courses or their equivalent)
Any combination approved by the Department of two Russian language courses and two courses in Russian literature, including at least one course at the 300+series level

## Russian Language (Arts program):

## Minor program

(4 full courses or equivalent, including one $300+$ series course)
Four courses from: SLA IOOYI, 220YI, 320YI, 32IYI, 330YI, 420YI, 452YI
Russian - See also Modern Languages And Literatures, Linguistics And Languages

## Russian Literature in Translation (Arts program)

## Minor program:

Four full courses or their equivalent, including one 300+ series course.
I. SLA 240 HI and 24 IHI
2. SLA 339 HI and 340 HI
3. Two additional approved full-course equivalents in Russian literature and/or culture.

## Slavic Languages and Literatures

## Slavic Languages (Arts program)

Consult Department Of Slavic Languages And Literatures

## Specialist program:

(I I full courses or their equivalent, including at least one 400series course)

LIN IOOYI and approved first courses in any two Slavic languages
Higher Years:
I. LIN $(228 \mathrm{HI}, 229 \mathrm{HI}) /(23 \mathrm{IHI} / 232 \mathrm{HI})$; SLA 330 Y I
2. Remainder of 3 -year sequences in the two Slavic languages
3. Two courses from: SLA $425 \mathrm{YI}, 430 \mathrm{YI}, 438 \mathrm{HI}, 452 \mathrm{YI}$, 468 HI chosen to correspond with the Slavic languages studied

## Slavic Languages and Literatures (Arts program)

Consult Department of Slavic Languages and Literatures

## Specialist program:

(14 full courses or their equivalent, including at least one 400series course from any TWO of Groups A, B, C above)

## A. Russian

## First Year:

SLA IOOYI
Higher Years:
I. SLA $220 \mathrm{YI}, 240 \mathrm{YI}, 320 \mathrm{YI}, 339 \mathrm{HI}, 340 \mathrm{HI}$
2. Two courses from: SLA $234 \mathrm{HI}, 244 \mathrm{HI}, 250 \mathrm{YI}, 252 \mathrm{HI}$, $3 \mathrm{IIHI}, 3 \mathrm{I} 2 \mathrm{HI}, 314 \mathrm{HI}, 3 \mathrm{I} 5 \mathrm{HI}, 3 \mathrm{I} 7 \mathrm{HI}, 32 \mathrm{IYI}, 330 \mathrm{YI}$, $33 \mathrm{IHI}, 332 \mathrm{HI}, 343 \mathrm{HI}, 344 \mathrm{HI}, 35 \mathrm{IH}, 367 \mathrm{HI}, 370 \mathrm{HI}, 402 \mathrm{HI}$, $403 \mathrm{HI}, 4 \mathrm{I} 5 \mathrm{HI}, 420 \mathrm{YI}, 423 \mathrm{HI}, 433 \mathrm{HI}, 440 \mathrm{HI}, 44 \mathrm{IH}$, $449 \mathrm{HI}, 450 \mathrm{H}, 45 \mathrm{IHI}, 452 \mathrm{YI}, 460 \mathrm{HI}, 46 \mathrm{IHI}, 462 \mathrm{HI}, 464 \mathrm{HI}$

## B. Polish

First Year:
SLA 106YI
Higher Years:
I. SLA $206 \mathrm{YI}, 2 \mathrm{I} 6 \mathrm{YI}, 306 \mathrm{HI}, 336 \mathrm{HI}, 406 \mathrm{HI} / 406 \mathrm{YI}, 4 \mathrm{I} 6 \mathrm{Y}$ I
2. Two courses from: SLA $226 \mathrm{HI}, 330 \mathrm{YI}, 346 \mathrm{HI}, 356 \mathrm{HI}$, $406 \mathrm{HI} / 406 \mathrm{YI}, 4 \mathrm{I} 6 \mathrm{YI}, 436 \mathrm{HI}, 446 \mathrm{HI}, 476 \mathrm{HI}$

## C. Ukrainian

First Year:
SLA 108YI
Higher Years:
I. SLA 208YI, 308YI
2. Four courses from: SLA $218 \mathrm{YI}, 228 \mathrm{HI}, 238 \mathrm{HI}, 248 \mathrm{HI}$, $253 \mathrm{HI}, 3 \mathrm{I} 8 \mathrm{HI}, 328 \mathrm{HI}, 330 \mathrm{YI}, 408 \mathrm{HI}, 4 \mathrm{I} 8 \mathrm{HI}, 4 \mathrm{I} 9 \mathrm{YI}$, $428 \mathrm{YI}, 429 \mathrm{HI}, 438 \mathrm{HI}, 448 \mathrm{HI}, 458 \mathrm{HI}, 468 \mathrm{HI}$

## Ukrainian Language And Literature (Arts program)

Consult Department of Slavic Languages and Literatures.

## Specialist program:

(9 full courses or their equivalent, including at least one 400series course)
First Year:
SLA 108YI
Higher Years:
I. SLA $208 \mathrm{YI}, 2 \mathrm{I} 8 \mathrm{Y}, 308 \mathrm{YI}, 438 \mathrm{HI}, 468 \mathrm{HI}$
2. Four courses, including at least one at the $300+$ level., from: SLA $228 \mathrm{HI}, 238 \mathrm{HI}, 248 \mathrm{HI}, 253 \mathrm{HI}, 3 \mathrm{I} 8 \mathrm{HI}, 328 \mathrm{HI}, 330 \mathrm{YI}$, $408 \mathrm{HI}, 4 \mathrm{I} 8 \mathrm{HI}, 4 \mathrm{I} 9 \mathrm{Y}, 428 \mathrm{Y}, 429 \mathrm{HI}, 448 \mathrm{HI}, 458 \mathrm{HI}$. Courses in Ukrainian history may also be counted toward this programme.

Major program:
(6 full courses or their equivalent)
SLA 108YI
Higher Years:
I. SLA 208YI, 218 Y I
2. Three courses, including at least one at the $300+$ level., from: SLA $228 \mathrm{HI}, 238 \mathrm{HI}, 248 \mathrm{HI}, 253 \mathrm{HI}, 308 \mathrm{YI}, 3 \mathrm{I} 8 \mathrm{HI}$, $328 \mathrm{HI}, 408 \mathrm{HI}, 4 \mathrm{I} 8 \mathrm{HI}, 4 \mathrm{I} 9 \mathrm{YI}, 428 \mathrm{YI}, 429 \mathrm{HI}, 438 \mathrm{HI}$, $448 \mathrm{HI}, 458 \mathrm{HI}, 468 \mathrm{HI}$. Courses in Ukrainian history may also be counted toward this programme.

## Minor program:

(4 full courses or their equivalent)
I. SLA 218 Y I
2. Three Ukrainian courses, including one language course and at least one course at the $300+$ level. One course in Ukrainian history may also be counted toward this programme.
Ukrainian - See Also Modern Languages And Literatures; Linguistics And Languages

## Slavic Languages and Literatures Courses

See page 33 for Key to Course Descriptions.
(Croatian; Czech \& Slovak; Macedonian; Polish; Russian; Serbian; Slavic Linguistics; Ukrainian)
For Distribution Requirement purposes (see page 27), all SLA courses are classified as HUMANITIES courses.

## Note

The Department reserves the right to place students in the language course best suited to their linguistic preparation.
HUMI99HI/YI First Year Seminar

## $52 S$

Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course; see page 47.

## SLA202HI Jewish Communities in 26L

 Slavic CountriesLiterature about the Jewish community in Slavic countries. How do these Jewish minorities perceive and identify themselves? How are they perceived by others?
SLA25IHI Origins of Slavic Civilization 26L
Surveys the history, archaeology, anthropology, religions, literature, architecture, and art of the Slavs from their prehistoric origin to the Baroque era. Examines the rise of the medieval Slavic nations, states, churches, and cultures; Scythian, Greco-Roman, Byzantine, Western European, and Oriental influences. Lectures are richly illustrated with slides.

## Slavic Languages and Literatures

## SLA253HI East Slavic Civilizations to the 18th Century

A survey of East Slavic civilizations through art, architecture, literature and religion. Includes the Scythians, whose battle skills and gold fascinated the ancient world; Kyivan Rus' and its princes, monks and martyrs; the rise of the Cossacks; and Peter the Great, founder of the Russian Empire and St. Petersburg. Lectures, with emphasis on visual presentation. Readings in English.
SLA254H I Stone Books to Sky Books: I3L, I3S

## Book as Institution, Commerce

and Art in the Slavic Tradition
Evolution of book and written/printed media in the Slavic world: legends (and forgeries) of ancient letters, mediaeval illuminated manuscripts, baroque visual poetry, pocket books for enlightened ladies and peasant comic strips, futurist painting and writing on faces, hand-written and painted books of the modernist artists and poets. Readings in English.

## SLA299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.
SLA302HI The Imaginary Jew 39S
The course examines the genesis and evolution of the image of the Jew, central to all European cultures, from the theology and psychology of Christian anti-Judaism to their reflection in folklore, visual, plastic, and verbal arts, and to the survival of the imaginary Jew in secular forms. Special attention is given to the Jews of Slavic and East European imagination. All readings are in English.
SLA380HI Language, Politics and Identity 26S Examines the multi-faceted nature of languages by comparing issues of language contact and conflict in the Former Soviet Union and in Central and Southeastern Europe. Explores issues such as language standards, language rights, language conflict, and linguistic identity.
Recommended preparation: Knowledge of at least one Slavic language is recommended.

## SLA395YI Readings in Slavic Literature 52 S

This course examines a special topic in Slavic Literature. The topic varies from year to year. Consult the department for more details.

## SLA396HI Readings in Slavic Studies 26S

This course examines a special topic in Slavic Studies. The topic varies from year to year. Consult the department for more details.
SLA398H0/ Independent Experiential Study Project
399Y0
An instructor-supervised group project in an off-campus setting. See page 47 for details.

| SLA422YI | History into Literature: 26L, 26S <br>  <br>  <br>  <br>  <br> Jaan Kross and the 20th |
| :--- | :--- |

A seminar focused on contemporary Estonian novelist Jaan
Kross (1920- ), whose historical fictions of the distant past resonated analogically with Soviet realities. East and West European traditions of historical fiction; questions of national identity, cultural diversity, and postSoviet challenges to revisioning the past. Readings (in English) also include Pushkin, Tolstoy, Tynianov and Sienkiewicz.

## SLA424HI Theatre and Cinema in

 ExtremisA study of the effects on aesthetic form of the totalitarian experience in Russia, Poland and Czechoslovakia. The Russian, Polish, and Czech avant-garde, poised between the bankruptcy of traditional aesthetics and the search for new forms in the post-revolutionary/post-Holocaust world. Co-taught course. Readings in English. (Offered every three years)

## Exclusion: SLA424YI

Recommended preparation: Prior completion of a course in drama or cinema

## SLA 453HI Women in East European 26S Fiction

In East European literary texts of the post 1990 era, this course examines connections and disconnections between gender and social change, and women's resistant and compliant discourses on war, nationalism, reproduction, the fictional representation of rape as a war crime, and women writers` responses to postcommunist eroticism and feminisms. All readings in English.

SLA476HI \begin{tabular}{l}

| Revolution in the Theatre: |
| :--- |
| Stanislavski, Meyerhold, Grotowski, |
| and Kantor | <br>

Theoretical thought and theatre practice of these directors are
\end{tabular}

placed within a context of theatre reforms in the 20th century,
from naturalism and symbolism, through retheatricalization of
theatre, to a ritualistic and mythic holy theatre. Readings in
English.
Prerequisite: Permission of instructor

SLA477HI Performance:Theory and Practice 26S
This course begins with selected theoretical approaches to performance. It then focuses on the examples of major European artists and performances of the 20th and 21 st centuries and their impact on our understanding of contemporary staging practices. Eventually, these theories and practices are used for different forms of analysis of the selected performances, including live productions in Toronto theatres.

## SLA485HI Laughter and Forgetting in 26S Milan Kundera

Laughter and forgetting is a recurrent theme in both Kundera's fictional and essayistic work. This class will examine the variations of this topic in Kunders's work and discuss the prosaic, dramatic and essayistic texts of his Czech period and attempt to place Kundera within the European context of the 'art of fiction'. All readings in English.

## SLA498Y I Independent Studies

A scholarly project on an approved literary or linguistics topic supervised by one of the Department's instructors.

## Prerequisite: Permission of the Department

## SLA499HI Independent Studies

A scholarly project on an approved literary or linguistics topic supervised by one of the Departments instructors. Prerequisite: Permission of the Department

## Croatian and Serbian Courses

SLA207YI Elementary Serbian I04P
Basic phonology, morphology and sentence structure.
Composition, oral practice and readings from Serbian literature.
Open only to students with little or no knowledge of Serbian.
(Offered in alternate years)

## SLA2I7YI

## Serbian Cultural History <br> (formerly SLA217HI)

A survey of culture in literature, film and the fine arts from the coming of the Serbs to Southeastern Europe until World War I.The legacy of Byzantium and Rome; the Middle Ages; the Baroque Enlightenment; the Serbian National Revival; Romanticism, Realism, and Modernism. Readings in English. Exclusion: SLA2I7HI

## SLA227YI Croatian Cultural History (formerly SLA227HI)

A survey of culture in literature, film and the fine arts from the coming of the Croats to Southeastern Europe until World War I. The Greek and Latin heritages; the medieval Croatian State; Humanism and Reformation among the Croats; the Dalmatian Renaissance and Baroque; the Illyrian Movement and Croatian National Revival; Romanticism, Realism, and Modernism. Readings in English.
Exclusion: SLA227HI

## SLA237YI Elementary Croatian

Basic phonology, morphology and sentence structure.
Composition, oral practice and readings from Croatian literature. Open only to students with little or no knowledge of Croatian. (Offered in alternate years)

## SLA307YI Advanced Serbian

104P
Systematic study of orthography and syntax. Advanced composition and oral practice. Reading and translation of more complex texts from Serbian writers. (Offered in alternate years) Prerequisite: SLA207YI or equivalent knowledge of the language
SLA3I6YI Advanced Croatian I04P
Systematic study of orthography and syntax. Advanced composition and oral practice. Reading and translation of more complex texts from Croatian writers. (Offered in alternate years)
Prerequisite: SLA237YI or equivalent knowledge of the language
SLA327HI The Balkan Short Story 26S
Studies of short stories written since 1950. Focus on innovative writers and current trends. Readings in the original and English.

## SLA337HI Political Drama from

## Dubrovnik to the Danube

Classic plays from the Renaissance to the present studied in reference to the contemporary national, ethnic and ideological background of south-eastern and central Europe.

## SLA347HI South Slavic Folklore

Historical and stylistic study of the customs, oral lore and traditions among pagan, Roman Catholic, Eastern Orthodox and Moslem Slavs. The role of folklore in the ethnogenesis of national culture. Readings in the original and English.

## SLA407HI Modern Croatian Bards

26S
Verse since 1900 by the major poets of the nation. Focus on the Croatian Moderna, Expessionism and other Avant-Garde movements. Readings in Croatian and English.

## SLA4I7HI Modern Serbian Bards (formerly SLA407HI)

Verse since 1900 by the major poets of the nation. Focus on the Serbian Moderna, Expessionism and other Avant-Garde movements. Readings in Serbian and English.
Exclusion: SLA407HI

## SLA427HI <br> Bosnian, Croatian and Serbian On Film

Bosnian, Croatian, and Serbian studied through film. Cultural and linguistic comprehension of scenario texts and inter-active screenings of classic films from the 1950s to the present. Oral and written exercises in speech patterns, appearance, behaviour and cultural attitudes. Films subtitled in original language.
Elementary language knowledge is required.
Recommended preparation: SLA307Y or SLA326Y

## Czech Courses

SLAI05YI Elementary Czech I04P
Grammar, composition, and conversation. Readings from Czech literature. Open only to students with little or no knowledge of the language.

| SLA204YI | Intermediate Czech <br> (formerly SLA205HI) | I04P |
| :--- | :--- | :--- |

Using selected texts of diverse styles, this class surveys Czech grammar and introduces various aspects of syntax, composition and translation. Special attention will be paid to oral practice. Exclusion: SLA205HI

## SLA2I5HI Czech and Slovak Cultures 26L (formerly SLA2I5YI)

Some of the most important features of Czech and Slovak cultural history are introduced in a survey of the national myths, traditions and cultural trends. (Offered every three years) Exclusion: SLA2I5YI
SLA225HI The Czech and Slovak Cinema 26S, I3P From the "New Wave" of the 60s to the present. The films of major directors - Forman, Menzel, Chytilová - and of talented newcomers. Screening of films censored and prohibited over the last 25 years. English subtitles. (Offered every three years)
SLA305HI Advanced Czech
104S
Morphology, syntax, composition and translation, oral practice. Contemporary Czech texts representing diverse styles. Prerequisite: SLA205YI

| SLA404HI | From The National Revival to 26S <br>  <br>  <br>  <br>  <br> Modernism: Czech Literature of the |
| :--- | :--- |

Beginning with the forged manuscripts of the early 19th century this course examines Czech Romanticism, Realism and Symbolism within the context of European culture. Readings include works by Macha, Nimcova, Neruda, Zeyer, Havlieek Borovsky. (Offered every three years). Readings in Czech and Slovak.
Prerequisite: SLA305YI or permission of the instructor Exclusion: SLA405YI

| SLA405HI | On the Waves of the |
| :--- | :--- |
| Avant-garde and Beyond: |  |
| Czech Literature of the 20th Century |  |

The experiments of the 1920 s serve as a point of departure for studies in Czech culture from the early 20th century to the present artistic innovations. Readings include works by Jaroslav Seifert, Karel Teige, Karel apek, F. Langer, V. Nezval, M. Kundera, V. Linhartová and others. (Offered every three years). Readings in Czech.
Prerequisite: SLA305YI or permission of the instructor

## Slavic Languages and Literatures

## SLA425YI History of the Czech <br> Literary Language

A study of original and translated works to trace the formation and development of the Czech literary language and to train students to differentiate literary styles, genres, and epochs. Readings include chronicles, sermons, travel accounts, dialogues and significant literary texts. (Offered every three years) Prerequisite: Permission of instructor
SLA435HI Readings in Czech and Slovak 52P
Advanced students are presented with a variety of texts

- literary, journalistic, scientific - tailored to their needs and interests. (Offered every three years)
Exclusion: SLA435YI
Prerequisite: Permission of instructor


## SLA445HI Magic Prague

This class explores Prague as a meeting point of different cultures. Questions of centre and margin of multiculturalism and nationalism are discussed, based on texts by Jan Neruda, F. Kafka, M. Cvetaeva and others.

## SLA455HI Czech Style and Syntax

Based on the theories of the Prague linguistic Circle this class explores selected concepts of Czech stylistics and syntax. Examples include a variety of literary styles, genres, and epochs. This is a Literature course that requires an advanced knowledge of Czech.

## SLA465HI Czech Short Story

39S
Introduces the problematics of public places and private spaces through various works of Czech writers from the 19th and 20th centuries. A variety of texts by modern Czech authors are explored through the prism of contemporary narrative theory. Special attention is paid to questions of differences in styles and epochs.

## SLA475HI Modern Czech Drama

Introduces students to the most important plays of contemporary Czech authors. (This is graduate/undergraduate course)

## Macedonian Courses

SLAI09YI Elementary Macedonian 78P
The basic features of the grammar of the Macedonian literary language. Acquisition of essential vocabulary for practical conversation and for comprehension. Development of reading and writing skills. Open only to students with little or no knowledge of the literary language. (Offered in alternate years)

## SLA209YI Intermediate Macedonian

78P
Systematic study of morphology. Reading and translation of more complex texts; more advanced composition; oral practice. (Offered in alternate years)
Prerequisite: SLAI 09YI

## Polish Courses

SLAI06YI Elementary Polish 26L, 78P
Basic vocabulary, essential morphology, simple sentence patterns. Regular language laboratory sessions. Reading of contemporary texts. Open only to students with little or no knowledge of the language.

SLA206YI Intermediate Polish 26L, 78P
Intensive study of morphology; translation into Polish. Literary texts; oral practice.
Prerequisite: Grade 13 Polish/SLAI06YI

## SLA2I6YI

The Dynamics of Polish
52L
Literature and Culture: A Survey
Major cultural traditions, historical processes, myths, and figures that have shaped and redefined Polish civilization and national identity are problematized and contextualized with the help of works of literature, history, philosophy, political science, music, visual and performing arts. Readings in English (also available in Polish). (Offered in alternate years)
SLA226HI Postwar Polish Cinema 26L, 26P
The "Polish School" in cinema, its predecessors and successors, their artistic accomplishments, major theoretical and thematic concerns, and their place on the map of European cinema. Films of Ford, Wajda, Polanski, Konwicki, Borowczyk, Has, Kawalerowicz, Zanussi, Kieslowski, and of the new generation of Polish film makers. Films and discussions in English. (Offered every three years)
SLA306HI Advanced Polish I 52P
Syntax, word formation, and stylistics. Compositions and precis. Critical evaluation of literary works and articles in Polish. Extensive reading and translation. (Offered in alternate years) Prerequisite: SLA206YI
SLA336HI Advanced Polish II 52P
Continuation of 306 HI .A variety of cultural materials are used to advance skills in composition, translation, and conversation. Reading and discussion of literary and non-literary texts. Prerequisite: $\quad$ SLA306HI or permission of instructor

| SLA346HI | From Eastern Europe to |
| :--- | :--- |
|  | European Union: Polish |
|  | Postwar Culture |

Probes the paradoxes of politics, culture and everyday life by analyzing the complex coexistence of art and literature with changing cultural politics in a totalitarian and post-totalitarian system, with simplistic ideology and political dissent, and with prevailing myths about the West and the East. Readings in English (Polish for majors).
Recommended Preparation: SLA216YI
SLA356HI What's New? Polish Culture Today 26S
The amazing cultural transformations of Poland in the last fifteen years within a changing Europe. The impact of these changes on Poland's social consciousness and the perception of identity, history, and nationhood. The most recent literature, fine arts, music, and popular culture. Readings in English (Polish for majors).
Recommended Preparation: SLA216YI

| SLA406HI | The Curtain Never Falls: Polish <br> Drama and Theatre in Context <br> (formerly SLA406YI) |
| :--- | :--- |

Study of drama as a literary and theatrical genre in its thematic and formal diversity in Polish literature from the 16th to the 20th century is combined with investigations of the role of the theatre as cultural institution in different periods of Polish history. Readings in English (in Polish for students in the major program). (Offered every three years)
Exclusion: SLA406YI

## SLA4I6HI Polish Fiction or a Disrupted Funeral of the Novel

Innovative reading of Polish fiction from the 18th to the 20th century. Study of narrative strategies, of the function of language and literary conventions, of various styles and poetics, of the issue of representation. In addition to the works of fiction (primarily novels, but also short stories), the reading list includes literary criticism and literary theory. Readings in English (in Polish for students in the major program). (Offered every three years)

## SLA436HI Rebels, Scoffers, and Jesters: Polish Culture from Different Perspectives

An advanced course on artistic, political, aesthetic, philosophical, and ideological dissenters who questioned, undermined, and redefined the main traditions in Polish culture from the 18th to the 21 st centuries.Readings in English (Polish for majors).
Prerequisite: SLA216Y।
Recommended Preparation: SLA336HI

## SLA446HI Polish Poetry

26S
Polish literature is known for its exquisite poetry, from the works of Jan Kochanowski, Sep-Szarzynski, Adam Mickiewicz, Juliusz Slowacki, and C.K. Norwid, through the great modernists like Kasprowicz and Boleslaw Lesmian, to the postwar Polish School of Poetry of Czeslaw Milosz, Herbert, Tadeusz Rozewicz, Wislawa Szymborska, and Miron Bialoszewski. This course puts the canon of Polish poetry to a comparative, analytical, and reinterpretative test.
Prerequisite: SLA336HI or Permission of instructor

## Russian Courses

SLAIOOYI Elementary Russian I30P
The basic features of the grammar. Acquisition of essential vocabulary for practical conversation and for comprehension. Development of reading and writing skills. (May not be taken by students who, in the judgement of the Department, qualify for entry into SLA 220YI)

## SLA220YI Intermediate Russian

I30P
Continuation of morphology. Word formation, composition, and translation. Intensive reading of classical and contemporary literary texts. Oral practice. Not intended for native speakers. Prerequisite: Grade 13 Russian/SLAIOOYI

SLA23 IH0 Special Topics in Russian Studies TBA Usually offered during the summer through the Woodsworth Summer Abroad program. Content varies from year to year based on instructor.

SLA234HI Russian and Soviet Cinema I3L, 26P A survey of the Russian cinematic tradition from its beginnings through the first decade following the disintegration of the USSR. The course examines the avant-garde cinema and film theory of the 1920 s; the totalitarian esthetics of the 1920s1940s and the ideological uses of film art; the revolution in film theory and practice in the 1950s-1960s; cinema as medium of cultural dissent and as witness to social change. Students also acquire basic skills of film analysis. Taught in English, all films subtitled in English.
SLA240HI New Forms For New Ideas, 26L, I3T 1820-1860
A novel in verse (Pushkin's Eugene Onegin), a novel stitched from stories (Lermontov's Hero of Our Times); a mock epic (Gogol's Dead Souls), and others. Struggling with social change
and new ideas, Russian authors create unique works of fiction. Readings in English and, for majors, in the original. Offered alternate years.

| SLA24IHI | New Forms For New Ideas, 26L, I3P <br>  <br>  <br> 1860-1900 |
| :--- | :--- |

Fathers and Children (Turgenev), Crime and Punishment
(Dostoevsky), The Cossacks (Tolstoy), Lady With A Dog
(Chekhov): why do these great Russian works and others still
have the power to fascinate and change us? Readings in English
and, for majors, in the original. Offered alternate years.
Exclusion: SLA240YI
Recommended Preparation: SLA240HI

## SLA244HI Studies in Film Genre I: 26S, I3P Russian and Soviet Comedy

Russian film comedy from the early 20th century to the present. Films are analyzed stylistically and in the context of the theory of laughter. We examine silent comedy, the Soviet propaganda film, the Stalinist musical comedy, satirical film, and the black comedy. Cinema as medium of cultural dissent and witness to social change. Taught in English. Films have English subtitles. No prior knowledge of Russian required.
Recommended Preparation: SLA234HI
SLA250YI Russian Cultural Heritage 52L A chronological multimedia survey of Russian culture from preChristian to post-Soviet times, emphasizing the clash between established authority and dissent, and tracing the conservative and radical currents in Russian literature and the arts, social thought and spirituality. Readings in English of classic poems, stories and novels, supplemented by videos and slides.
SLA252HI Russian Short Fiction 26S
An exploration of the elements of the short story through close readings of works by 19th and 20th century writers. Stories in translation by Pushkin, Gogol, Turgenev, Dostoevsky, Chekhov, Olesha, Babel, and others.
SLA3IIHI Gogol 26S
Fantastic and grotesque works by the most hilarious, obsessive, and delusional character in Russian literature, who teased, fascinated, and polarized readers. Gogol's writings are examined with various theoretical approaches. Includes cinematic (Taras Bulba,Viy, Overcoat) and musical (Ribsky-Korsakov's "Chirstmas Eve," Shostakovich's "Nose") re-creations of Gogol's works. All readings in English.

## SLA3I2HI Nabokov

26S
A study of Vladimir Nabokov's novels written in Europe and the United States. Special attention is paid to the nature and evolution of Nabokov's aesthetics; the place of his novels in European and American literary traditions; Nabokovs creative uses of exile to artistic, philosophical and ideological ends; the aesthetic and cultural implications of the writer's switch from Russian to English. Novels studied: Defense, Despair, The Gift, The Real Life of Sebastian Knight, Lolita, Pnin, Pale Fire. The course is taught in English. All readings are in English.

## SLA3I4HI Dostoevsky <br> 13L, 13T

Crime and Punishment, The Brothers Karamazov, and short works. Dostoevsky's political, psychological, and religious ideas as they shape and are shaped by his literary art. Readings in English.
SLA3I5HI The Russian Novel: Case Studies 26S
One major Russian novel: its genesis, structure, artistic devices, and philosophical significance.Various critical approaches; cognate literary works. Students are expected to have read the

## Slavic Languages and Literatures

novel before the course begins. Consult the Department for title of novel. Readings in English. (Offered in alternate years)

## SLA3I7HI Tolstoy

War and Peace, Anna Karenina, and some shorter works. Tolstoy's political, psychological, and religious ideas as they shape and are shaped by his literary art. Readings in English.

## SLA320YI Advanced Russian

130S
Syntax of the simple sentence. Problems in grammar and word formation. Composition, translation and conversation. Reading and discussion of literary and non-literary texts.
Prerequisite: SLA220YI; native speakers of Russian admitted only with permission of instructor

SLA32IYI Conversational Russian 78S
Expansion of vocabulary and development of conversational skills. Readings and films stimulating discussion of Russian history, culture, art, and contemporary events and issues. Exclusion: Native speakers of Russian Prerequisite: SLA220Y land permission of instructor

## SLA 33IHI Experiments and Revolutions 26S

in Art and Literature of the
Late Russian Empire-Early Soviet Union
Painting, literature, and film from 1890-1930s. New revolutionary paths for the advancement of man and society through art. Symbolism, neoprimitivism, futurism, suprematism, and constructivism. Chekhov, Kandinsky, Bely, Stravinsky, Goncharova, Malevich, Tatlin, Eisenstein, and many others. All readings in English.
SLA332HI Literature and Music in Russia I3L, I3S
This course, on the interaction between artistic genres, introduces a series of Russian and other literary works of the 19-20th C that have inspired Russian musical masterpieces in the operatic, song, and symphonic repertoire. Texts are studied in translation. Basic Russian and musical literacy useful, but not obligatory.
SLA339HI The Twilight of an Empire: I3L, 26T

## Russian Art and Thought in

the European Fin de Siècle
The course explores Russia's artistic and intellectual responses to social and cultural upheaval in the two decades preceding WWI. Students engage in a comparative study of modernist art and thought in Russia and Western Europe. Topics may include Symbolism and Decadence in literature (Sologub, Belyi, Huysmans, Wilde, etc.); the fin de siècle sensibility in Russian and West European thought (Solòv'ev, Rozanov, Nordau, Weininger); visual and plastic arts (Art Nouveau, Secession, World of Art), music, and film. Taught in English. All readings are in English. No prior knowledge of Russian language or culture is required.

## SLA340HI Narrative Revolution and I3L, 26T Counterrevolution in <br> 20th-Century Russian Prose

The course examines experimental approaches to story-telling and genre limitations in Russian prose, as well as conservative reactions to these experiments, from 1917 to the end of the USSR. Topics may include: formalism, expressionism, stylization, and avant-garde in the 1920s (I. Babel', M. Zoshchenko, lu. Olesha, A. Remizov, D. Kharms, V. Nabokov); the esthetics of Socialist Realism; the prose of poets (M.Tsvetaeva, B. Pasternak, O . Mandel'shtam, VI. Khodasevich); underground and émigré memoirs (N. Mandel'shtam, E. Ginzburg, N. Berberova); genre
crossovers: documentary novels, fictional criticism (V. Grossman, Abram Terts, L.Tsypkin). Taught in English. All readings are in English. No prior knowledge of Russian language or culture is required.

## SLA343HI Post-Stalinist and I3L, I3S <br> Contemporary Russian Literature

A study of major books and writers of the last forty years (novels, short stories, verse) which are involved in the postStalin artistic and cultural liberation, the rediscovery of Russian literature's links with its own vital tradition, and development of a Russian brand of modern and 'post-modern' writing. (Readings in English)
SLA344HI The Gulag in Literature I3L, I3S
The experience of prison as reflected by Russian writers. The rise and persistence of the prison camp system; physical and spiritual survival; the literary value of the prison experience. Works (in translation) by Dostoevsky, Solzhenitsyn, Shalamov, Ginzburg and others.
SLA35IHI Language Practice TBA
Development of writing and translating skills. For more advanced students including native speakers.
SLA367HI Chekhov 26S
Selected stories, plays; stylistic, structural, and thematic analysis, literary and historical context, influence in Russia and the West. Readings in English and, for Specialists in Russian, in the original. (Offered in alternate years)
SLA370HI Russian Romantic Poetry 395
An introduction to Russian Romanticism through the major works of one or more poets (chosen variously from Pushkin, Lermontov, Tyutchev, Baratynsky, et al.). Close readings of lyric and narrative verse. The rudiments of Russian versification. Relations with Western European poets. All texts read in Russian.
Co-requisite: SLA320YI
SLA402HI Advanced Russian Language 39S Skills I
A series of translation exercises from English to Russian (and some from Russian to English) designed to expand students' ability to respond to and translate a variety of advanced prose texts in different styles and registers.
Prerequisite: SLA320YI or permission of the instructor

## SLA403HI Advanced Russian Language $39 S$ Skills II

This course follows on from SLA 402, which is, however, not a prerequisite for enrolment. The course provides complex and stylistically varied exercises in translation from Russian into English and vice versa, and should be of equal benefit to those with native Russian and native English.
Prerequisite: SLA320YI or permission of the instructor

| SLA4I5HI | Studies in Russian Literature <br> of the 18 th Century | $39 S$ |
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The prose, poetry and dramaturgy of the most prominent literary figures of the eighteenth century, including Karamzin, Lomonosov, Fonvizin, Derzhavin and Krylov; aspects of literature during the reign of Peter I; literature and satirical journalism during the reign of Catherine II. (Taught in Russian) Prerequisite: Permission of the instructor

## SLA420YI Studies in Russian Syntax and Stylistics

Syntactic structures and their relation to meaning and style, word order, intonation. Consolidation of morphology, vocabulary building through extensive reading. Translation, composition, and oral practice.
Prerequisite: SLA320YI; native speakers of Russian admitted only with permission of instructor

## SLA423HI War and Peace (formerly SLA323HI)

War and Peace in depth, and from various points of view, literary, political, philosophical, historical, and psychological. Various critical approaches; cognate literary works. Students are expected to have read the novel before the course begins. Readings in English. (Offered in alternate years)
Exclusion: SLA323HI
Recommended Preparation: SLA 3I7HI
SLA433HI Anna Karenina
(formerly SLA324HI)
Anna Karenina in depth, and from various points of view, literary, political, philosophical, historical, and psychological. Various critical approaches; cognate literary works. Students are expected to have read the novel before the course begins. Readings in English. (Offered in alternate years)
Exclusion: SLA324HI
Recommended Preparation: SLA 3I7HI

## SLA440HI Introduction to Russian <br> 19th Century Poetry <br> (formerly SLA440YI)

Starting with pre-Pushkinian Classicism this course surveys the development of Russian lyric verse (with some excursions also into narrative verse); major topics studied include: Pushkin, Russian Byronism, the Pushkin Pleïade, Nekrasov's civic verse; philosophical verse by Tyutchev; Impressionist and Decadent poets. Readings in Russian.
Prerequisite: SLA320YI/340HIExclusion: SLA440Y I

## SLA44IHI Modern Russian Poetry

This course follows on from SLA440H, although the latter is not a prerequisite for enrolment. A chronological survey begins with Symbolist verse; special attention is devoted to Blok, Akhmatova, Mandelstam, Pasternak, Mayakovsky; other modernists studied include Tsvetaeva, Esenin, Zabolotsky; study of the post-Stalin revival begins with Voznesensky and Evtushenko, concluding with losif Brodsky. Readings in Russian. Prerequisite: SLA 320 YI or 340 HI
SLA449HI Russian Thinkers 39 S
Social and political change, and national and spiritual destiny in the philosophical, journalistic and critical writings of nineteenth century Russia. From Slavophiles and Westernizers to anarchists, nihilists and revolutionary populists. Readings in English and, for Russian majors, in the original. Offered in alternate years.

## SLA45 IHI Russian Acmeist Poetry

This course examines the Acmeist phenomenon, studying writings by Kuzmin, Gorodetsky, Narbut, Nadezhda Mandelstam and others, making a special study of Akhmatova, Mandelstam, Gumilev. Other topics include: critical reception of Acmeist writings, Acmeist posts' interaction with other contemporary writers, ideological and cultural aspects of the movement. All readings in Russian.

## SLA450HI Pushkin and His Age 26P

Lyric poetry, poems, selected prose and Evgeny Onegin. Pushkin and the idea of a writer in the Russia of his time; his image as a national poet. Readings in Russian.
Prerequisite: Permission of the instructor.
SLA460HI Contemporary Russian Literature 26L
Major writers and literary groupings of the past decade; the
literary process in post-Soviet Russia. (Taught in Russian)
Prerequisite: Permission of the instructor
SLA46IHI Literary Scandals in 26L 20th Century Russia
An examination of twentieth-century literature through exploration of major literary scandals, including Blok/Bely, Mayakovsky, Voloshin, Zoshchenko/Akhmatova, the Nobel and Booker Prizes; how these illustrate tensions within literature and reveal the literary process. (Taught in Russian)
Prerequisite: Permission of the instructor
SLA462HI Russian Comic Fiction: 26 S Chekhov, Zoshchenko, Dovlatov
The characteristics and the tradition of Russian comic writing, from Chekhov's early stories to the Soviet "meshchanin" of Mikhail Zoschenko and the émigrés of Sergei Dovlatov. (Taught in Russian)
SLA463HI Themes in Russian Realism 26L
What is distinctive about Russian realism? The course will examine nineteenth century Russian realist fiction in relation to various theoretical approaches from Erich Auerbach to Roman Jakobson, and will read contemporary works of criticism or thought from Russia and Europe that may have influenced it. Prerequisite:The equivalent of one FCE in literature
SLA464HI Studies in the Russian Novel 26L An examination of the most prominent Russian novelists of the last several decades, including Erofeev, Bitov, Sorokin and Azolsky. The genesis, structure, artistic devices and philosophical significance of their novels, critical approaches to them, cognate works. (Taught in Russian)
Prerequisite: Permission of the instructor

## Slavic Linguistics Courses

SLA330YI Old Church Slavonic
$52 S$
Structure and history. Reading and linguistic study of Old

## Slavonic texts.

Prerequisite: Permission of instructor
SLA452Y I Structure of Russian $52 S$
The phonology, morphology and syntax of contemporary standard Russian from a formal and semantic standpoint. Prerequisite: SLA320YI

## Ukrainian Courses

Web site: www.chass.utoronto.ca/~tarn/courses/
SLAI 08YI Elementary Ukrainian
104P
Basic vocabulary, simple sentence patterns, essential morphology. Internet language laboratory drills. Intended for students with little or no knowledge of the language.
SLA208YI Intermediate Ukrainian I04P
Study of morphology through grammar drills; oral practice; reading of texts from Ukrainian literature.

## Slavic Languages and Literatures

Prerequisite: Permission of instructor

## SLA2I8YI Ukrainian Literature and Culture

A general survey of Ukrainian culture through an examination of selected literary works and their social, political, historical, philosophical, and aesthetic context. The course covers the period from Kyivan Rus' to the present. Readings in English. (Offered in alternate years)

SLA228HI | 20th Century Ukrainian |
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| Fiction in Translation |

A selection of twentieth century Ukrainian novels and short prose
in English translation. From the intellectual novel of the 1920 s ,
through socialist realism, to the new prose of the 1990 s . Authors
include Pidmohylny, Antonenko-Davydovych, Honchar, Shevchuk,
Andrukhovych and Zabuzhko. (Offered in alternate years)
Recommended preparation: any course in literature

SLA238HI Literature of the Ukrainian-
Canadian Experience
A selection of literary texts depicting or reflecting the experience and perceptions of Ukrainians in Canada from the first immigrants to the present. Texts include works originally written in English, French and Ukrainian, but all readings are in English. Authors include: Kiriak, Kostash, Ryga, Galay, Suknaski, Kulyk Keefer. (Offered in alternate years)
Recommended preparation: any course in literature

## SLA248HI Women and Women's Themes in Ukrainian Literature

This course examines the presentation of women and women's themes in works of Ukrainian literature. The subjects covered include: role models, freedom, socialism, nationalism, feminism, and sexuality.

## SLA308YI Advanced Ukrainian

104P
Review of morphology and study of syntax. Short compositions based on literary and critical texts. Voluntary language laboratory. Prerequisite: Permission of instructor

SLA3I8HI | Kyiv-Kiev-Kijow: A City through 26L |
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| Cultures and Centuries |

A cultural history of the Ukrainian capital; Ukrainian, Russian,
Polish and Jewish "versions" of the city; artworks and literary texts
that capture the complexity of Kyivan history and culture. Readings
in the original languages encouraged but not required.

## SLA328HI The Culture of Contemporary

 UkraineContemporary Ukraine is an amalgam of various cultural traditions. This course examines its languages, religions, nationalities, literature, cinema, arts, print and broadcast media, regions, education, and social groups. Special attention is given to the factors that influence public perceptions of identity. All readings are in English.

## SLA408HI The Ukrainian Short Story 26S

The development of the short story from Kvitka-Osnovianenko to the present day. All readings in the original. (Offered every four years)
Prerequisite: Permission of instructor

## SLA4I8HI Ukrainian Drama <br> 26S

The development of Ukrainian drama from Kotliarevsky to the present day. All readings in the original. (Offered every four years) Prerequisite: Permission of instructor
SLA4I9YI Ukrainian Poetry
A survey of Ukrainian poetry from Skovoroda to the present day.
All readings in the original. (Offered every four years)
Prerequisite: Permission of instructor
SLA428YI The Ukrainian Novel

SLA428YI The Ukrainian Novel
Major works by Kulish, Nechui-Levytsky, Myrny, Franko, Kotsiubynsky, Kobylianska, Vynnychenko, lanovsky, Pidmohylny, Honchar, Andrukhovych, and Zabuzhko. Readings in Ukrainian. (Offered every four years)
Prerequisite: Permission of instructor

## SLA429HI Shevchenko 26S

A critical study of Taras Shevchenko. Life, works, and significance. Readings in Ukrainian.
Prerequisite: Permission of instructor
SLA438HI Style and Structure of Ukrainian 39 S
Beginning with an overview of the synchronic structure of Ukrainian (phonetics, phonology, morphology, syntax), the course introduces various styles of contemporary Ukrainian. Emphasis is on the practical usage of various styles. A number of sociolinguistic questions are examined: dialects, jargons, slang, and the language situation in contemporary Ukraine.
Prerequisite: Permission of instructor

## SLA448HI Ukrainian Literature of

thel7th and I8th Centuries
A survey of Ukrainian literature from the Renaissance to the National Revival: polemical literature, baroque poetry, school drama, religious and philosophical treatises, history-writing, dumy and satire. Major figures include Smotrysky, Vyshensky, Prokopovych and Skovoroda. Works are read in modern Ukrainian and English translations.
Prerequisite: Permission of instructor
Recommended preparation: A 400-level course in Ukrainian literature

## SLA458HI Ukrainian for the 2lst Century 39S

This course introduces students to contemporary Ukrainian using approaches beyond grammar and traditional classroom interaction. Emphasis is on the enhancement of language skills in the context of contemporary Ukraine. Students develop practical skills based on traditional media as well as on multimedia resources, including those of the Internet.
Prerequisite: Permission of instructor
Recommended preparation: SLA208YI, 308Y I

## SLA468HI Aspects of Literary

39P

## Translation of Ukrainian

This course introduces the problems of written translation of literary works from Ukrainian into English: evaluation and comparison of existing translations, practical exercises; treatment of common difficulties in translating, various literary genres and styles, dialectical, social, generational and other subvarieties of language, as well as idiomatic and figurative language.
Prerequisite: Permission of instructor
Recommended preparation: SLA308YI or permission of instructor

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Faculty
Professors Emeriti
    R.F. Badgley, MA, Ph D
    R. Breton, MA, Ph D, FRSC (SM)
    D.F. Campbell, Ph D (UTM)
    O. Hall, Ph D, LL D, FRSC
    E.B. Harvey, MA, Ph D
    N.L. Howell, BA, Ph D
    W.W. Isajiw, MA, Ph D (S)
    M.J. Kelner, Ph D, LL D
    D.W. Magill, MA, Ph D (N)
    H.M. Makler, MA, Ph D
    W.M. Michelson, AM, Ph D, FRSC
    J.W. Salaff, MA, Ph D
    E. Silva, Ph D (UTM)
    J.H. Simpson, BD, Th M, Ph D (UTM)
    M. Spencer, MA, Ph D (UTM)
    L. Zakuta, MA, Ph D
    I.M. Zeitlin, Ph D (T)
Professor and Chair of the Department
    B. Wheaton, MA, Ph D
Associate Professor and Associate Chair
    S. Welsh, MA, Ph D
Associate Professor and Associate Chair
    A.M. Sorenson, MA, Ph D
Professors
    Z, Baber, MA, PhD (UTM)
    B. Baldus, MA, Dr Sc Pol
    Y.M. Bodemann, MA, Ph D
    M. Boyd, Ph D, FRSC
    R. Brym, MA, Ph D
    B.H. Erickson, MA, Ph D
    E.W-C. Fong, MA, Ph D
    H. Friedmann, Ph D (UTM)
    R. Gartner, MS, Ph D
    A.R. Gillis, MA, Ph D
    J. Hannigan, MA, Ph D (S)
    C.L. Jones, MA, Ph D
        J.B. Kervin, BA, Ph D (UTM)
        J. Myles, Ph D, FRSC
        R. O'Toole, MA, Ph D (S)
        J.G. Reitz, BS, Ph D, FRSC
        S. Schieman, MA, Ph D
        J.Tanner,B Sc, MA, Ph D (S)
        L. Tepperman, AM, Ph D (N)
        B. Wellman, MA, Ph D
Associate Professors
        M. Blute, Ph D (UTM)
        D. Brownfield, MA, Ph D (UTM)
        J. Bryant, MA, Ph D
        B. Fox, Ph D
        K. Hannah-Moffat, MA, Ph D (UTM)
        P.C. Hsiung, MA, Ph D (S)
        W.J. Magee, MS, Ph D
```


## Faculty

Professors Emeriti
R.F. Badgley, MA, Ph D
R. Breton, MA, Ph D, FRSC (SM)
D.F. Campbell, Ph D (UTM)
E.B. Harvey, MA, Ph D
N.L. Howell, BA, Ph D
W.W. Isajiw, MA, Ph D (S)
M.J. Kelner, Ph D, LL D D.W. Magill, MA, Ph D (N)
H.M. Makler, MA, Ph D
W.M. Michelson, AM, Ph D, FRSC
J.W. Salaff, MA, Ph D
E. Silva, Ph D (UTM)
J.H. Simpson, BD, Th M, Ph D (UTM)
M. Spencer, MA, Ph D (UTM)
L. Zakuta, MA, Ph D
I.M. Zeitlin, Ph D (T)

Professor and Chair of the Department B. Wheaton, MA, Ph D

Associate Professor and Associate Chair S. Welsh, MA, Ph D

Associate Professor and Associate Chair A.M. Sorenson, MA, Ph D

Professors
Z, Baber, MA, PhD (UTM)
B. Baldus, MA, Dr Sc Po
M. Boyd, Ph D, FRSC
R. Brym, MA, Ph D

Erickson, MA, Ph D
H. Friedmann, Ph D (UTM)
R. Gartner, MS, Ph D
J. Hannigan, MA, Ph D (S)
C.L. Jones, MA, Ph D
J.B. Kervin, BA, Ph D (UTM)
J. Myles, Ph D, FRSC
R. O'Toole, MA, Ph D (S)
J.Tanner,B Sc, MA, Ph D (S)
.Tepperman, AM, Ph D (N)
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M. Blute, Ph D (UTM)
D. Brownfield, MA, Ph D (UTM)
J. Bryant, MA, Ph D
K. Hannah-Moffat, MA, Ph D (UTM)
P.C. Hsiung, MA, Ph D (S)
W.J. Magee, MS, Ph D
I. Peng, MA, Ph D
A. Sev'er, MA, Ph D (S)
S. Ungar, Ph D (S)
W.H.Vanderburg, MA Sc, Ph D, P Eng
J.W.P.Veugelers, MA, Ph D

## Assistant Professors

S.Abraham, Ph D (UTM)
S. Baumann, MA, Ph D (UTM)
D. Behrens, M Sc, Ph D
B. Berry, Ph D
C. Cranford, MA, Ph D (UTM)
R. Dinovitzer, MA, PhD (UTM)
J. Hermer, Ph D (S)
J. Johnston, MA, Ph D (UTM)
A.C. Korteweg, MA, Ph D (UTM)
P. Landolt, Ph D (S)
K. Liddle, MA, Ph. D. (S)
A. Mullen, Ph D (S)
P. Maurutto, MA, Ph D (UTM)
J. Taylor, PhD
W. Zhang, PhD (UTM)

Adjunct Professors
J.Armstrong, Ph D
J. Baum, Ph D
R. Blickstead, MBA
L. Calzavara, Ph D
P. Erickson, Ph D
R. Glazier, M Ph, MD
A. Greve, Dr. Oecon.
A. Hathaway, Ph D
B. Kimmerling, Ph D
D. Livingstone, Ph D
G. Moore, Ph D

I-J. Yoon, Ph D

## Senior Lecturer

B. Green, Ph D (UTM)

Sociological investigation ranges from the analysis of small groups to large social systems. Using a variety of methods and skills, Sociology explores how our individual and collective ways of thinking, feeling and acting are shaped by our social experience. Sociological perspectives and methods are now an essential feature of modern culture, public debate and policy in governmental, commercial, and non-profit organizations. The basic sociological hypothesis that "the social matters" is a guiding source of new intellectual and research agendas in disciplines and professional schools throughout the university.
Sociological perspectives and research skills can also provide helpful preparation for many careers, including: government, politics, industry, education and journalism. Medical, legal, and environment fields report an increasing need for sociologists. Municipal governments hire specialists in urban sociology, community relations, policy and planning. In private business sociologists work in management consulting firms and public polling organizations, as well as in labour relations and human resources. A professional career in sociology, however, requires training beyond the undergraduate level.

Much of the undergraduate and graduate teaching and research

## Sociology

in the department reflect areas of strength that include: crime, law and deviance, gender and family, health and mental health, law, immigration and ethnic relations, labour markets and work, and political sociology. Additional strengths follow from developing areas in the discipline, including globalization, the life course and aging, social policy, and the sociology of culture.

Some SOC courses are restricted (see Note I below). Other SOC courses are not restricted but preference is given to students in Sociology programs. Almost all 200-, 300-, and 400level courses have prerequisites.

Undergraduate Director: Professor A. Sorenson, Room 246, 725 Spadina Ave. 416-978-4266

Undergraduate Advisor: Ms. A. Mitchell, Room 284, 725 Spadina Ave.

All Enquiries: 416-978-34I2 (choose option 2)
Undergraduate Program Information and Course Descriptions: available in Spring at:
http://www.utoronto.ca/sociology

## Sociology Programs

Enrolment in Sociology Programs is limited. Consult the Registration Handbook and Timetable for enrolment details.

## Sociology (Arts program)

## Specialist program:

(IO full courses or their equivalent, including at least one 400series course)

Entry Requirements:
I) a minimum grade of $65 \%$ in SOC 101 YI ;
2) a minimum grade of $70 \%$ in each of SOC 200 HI ,

SOC $202 \mathrm{HI}, 203 \mathrm{YI}$, and SOC204HI; and
3) all students must have completed 8 full courses and be enrolled in the sociology major program.
I. SOC IOIYI
2. SOC $200 \mathrm{HI}, \mathrm{SOC} 202 \mathrm{HI}, \mathrm{SOC} 204 \mathrm{HI}$, SOC 203 YI . In order to complete the Specialist program in the usual four-year period, these courses must be taken immediately following SOC IOIYI.
3. SOC $300 \mathrm{HI}, 376 \mathrm{HI}, 377 \mathrm{HI}, 387 \mathrm{HI}$
4. SOC 40IYI
5. Three and a half additional $200+$ level SOC full courses

NOTE:The Department recommends that the Major Program requirements be complete at the end of the I5th full course (normally the end of third year)

## Major program:

(6.5 full courses or their equivalent)

Entry Requirements:
Option I) a minimum grade of $65 \%$ in SOC IOIYI; and all students need to have completed 4 full courses towards a degree;
or
Option 2) a mark of $72 \%$ in each of two advanced sociology courses and a CGPA of 3.0 (73\%-76\%).
I. SOC IOIYI
2. SOC $200 \mathrm{HI}, \mathrm{SOC} 202 \mathrm{HI}, \mathrm{SOC} 203 \mathrm{YI}, \mathrm{SOC} 204 \mathrm{HI}$. In order to complete the Major program in the usual three year period, these courses must be taken immediately following SOC IOIYI.
3. Three additional 200+ level SOC courses, including at least two 300+ level courses
Minor program:
(4 full courses or their equivalent)
Entry Requirements:
a minimum grade of $65 \%$ in SOC IOIYI; and all students need to have completed 4 full courses towards a degree
I. SOC IOIYI
2. Three additional $200+$ level SOC courses, including at least one 300+ level course

## Sociology and Economics - See Economics

## Sociology and Philosophy: see Philosophy

## Sociology and Political Science: see Political Science

## Sociology and Urban Studies (Arts program)

Consult Department of Sociology and Dr. R. DiFrancesco, Innis College.

## Specialist program:

(14.5 full courses or their equivalent, including at least two 400series courses)

Entry Requirements:
I) a minimum grade of $65 \%$ in SOC IOIYI;
2) a minimum grade of $70 \%$ in each of SOC 200 HI ,

SOC202HI, 203YI, and SOC204HI; and 3) all students must have completed 8 full courses and be enrolled in the sociology major program.
First Year:
I. SOC IOIYI
2. Two of ECO I00YI/I05YI, GGR I24YI, a POL I00-level course/POL 214 Y I
Higher Years:
I. INI $235 \mathrm{YI}, 306 \mathrm{YI}, 430 \mathrm{YI}$
2. SOC $200 \mathrm{HI}, 202 \mathrm{HI}, 203 \mathrm{YI}, 204 \mathrm{HI}, 300 \mathrm{HI}, 276 \mathrm{HI}, 277 \mathrm{HI}$, $387 \mathrm{HI}, 40 \mathrm{IYI}$
3. One of SOC $205 \mathrm{YI} / 385 \mathrm{YI}$
4. An additional 2.0 courses selected from Groups $A / B / C / D / F$ (not Group E: Sociology) with no more than 1.0 from any group:

## Group A: Economics

ECO $200 \mathrm{YI}, 236 \mathrm{HI}, 3 \mathrm{I} 6 \mathrm{YI}, 319 \mathrm{HI}, 333 \mathrm{YI}, 334 \mathrm{YI}, 4 \mathrm{IOHI}$; GGR 220 Y , $324 \mathrm{HI}, 326 \mathrm{HI}, 357 \mathrm{HI}$

Group B: Geography
JGI $346 \mathrm{HI}, 360 \mathrm{HI} ;$ GGR $252 \mathrm{HI}, 323 \mathrm{HI}, 324 \mathrm{HI}, 339 \mathrm{HI}, 357 \mathrm{HI}$, $364 \mathrm{HI}, 459 \mathrm{HI}$

## Group C: History and Architecture

ARC $283 \mathrm{HI}, F \mathrm{FAH} 208 \mathrm{HI}, 209 \mathrm{HI}, 2 \mathrm{I} 2 \mathrm{HI}, 2 \mathrm{I} 3 \mathrm{HI}, 214 \mathrm{HI}, 375 \mathrm{HI}$, $376 \mathrm{HI}, 377 \mathrm{HI}, 405 \mathrm{HI} ;$ GGR $336 \mathrm{HI}, 366 \mathrm{HI}$

## Group D: Politics

POL 209YI, 22IHI, 3I7YI, 32IYI, 333YI, 336HI, 4I8YI, $436 \mathrm{YI}, 472 \mathrm{HI}, 473 \mathrm{HI}, 474 \mathrm{HI}, 475 \mathrm{HI}$

## Group F: Environment

GGR $314 \mathrm{HI}, 332 \mathrm{HI}, 435 \mathrm{H}$

## Sociology Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes, all SOC courses are classified as SOCIAL SCIENCE courses (see page 27).

Note 1.
Enrolment in SOC $200 \mathrm{HI}, 202 \mathrm{HI}, 204 \mathrm{HI}, 300 \mathrm{HI}, 376 \mathrm{HI}$,
$377 \mathrm{HI}, 40 \mathrm{IYI}$ is restricted as stated in the course descriptions below. Ineligible students will be removed even if the course appears on their timetable.

SSCI99HI/YI First Year Seminar 52 S
Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course; see page 47.
SOCIOIYI Introduction to Sociology 52L, 26T
The basic principles and methods of sociology applied to the study of human societies; social sources of differing values and conceptions of reality, and the influences of these on the behaviour of individuals, patterns of relations among groups, and social stability and change.

## Note

Obtaining 65\% or more in SOCIOIYI is a requirement for entry into all SOC programs. SOCIOIYI is also a requirement for completing all SOC programs. Credit for higher-level SOC course will not waive this requirement.

## 200-Series Courses

## Note

Almost all upper-level SOC courses have prerequisites. Students without course prerequisites will be removed at any time they are discovered.

## SOC200HI Logic of Social Inquiry (formerly SOC200YI)

This course reviews the basic issues that concern all types of data collection methods used by social scientists to test theory. Key topics include selection, sampling, and measurement. The course explores how error affects the data gathered in experiments and non-experimental studies, and in qualitative and quantitative research. The course emphasizes critical thinking about the empirical research presented in everyday life, as well as preparation for more advanced research courses. SOC200HI is a restricted course. Enrolment is limited to sociology Majors (see Note I above)
Exclusion: SOC200YI, JBS229HI, POL242YI, UNI200YI, WDW350YI
Prerequisite: SOCIOIYI

## SOC202HI <br> Quantitative Analysis in Social Science Research (formerly SOC300YI)

Introduction in quantitative social science research - from
descriptive statistics to hypothesis testing using various
strategies for the analysis of bivariate relationships.
Enrolment is limited to students admitted to the sociology
major program.
Exclusion SOC200YI, SOC300YI, ECO220YI, GGR270HI,
PSY20IHI, STA220HI, STA248HI, POL242YI,WDW350YI

## Prerequisite: SOCIOIYI, SOC200HI.

## SOC203YI History of Social Theory 52L

Development of sociological theory in the 19th and 20th
centuries; history of ideas; formal analysis; relationship between

## theory and empirical inquiry.

Exclusion: SOC3I4YI
Prerequisite: SOCIOIYI

## SOC204HI Qualitative Analysis in Social Science Research (formerly SOC387YI)

Introduction to the methods and issues of qualitative social science research - the theories, methods for data collection and analysis, and the personal and ethical issues relating to qualitative research. Enrollment is limited to students admitted to the sociology major program.
Exclusion: SOC200YI, SOC387YI
Prerequisite: SOCIOIY. SOC200HI
SOC205YI Urban Sociology 52L
Complementary perspectives of the city: as an evolving entity historically (urbanization); as a way of life and adaptation, reflecting cultures and subcultures (urbanism); as territorial parts reflecting and contributing to social processes (ecological perspective); as a unit managed by formal and informal parties (structural perspective).
Prerequisite: SOCIOIYI
SOC207YI Sociology of Work \& Occupations 52L
The nature and meaning of work in relation to changes in the position of the professions, unions and government, of women and minority groups, and in industrial societies more generally. Career choice and strategies, occupational mobility, and individual satisfaction at work.
Prerequisite: SOCIOIYI
SOC2IOYI Ethnicity in Social Organization 52L Impact of racial, ethnic, and linguistic heterogeneity and of various patterns of immigration on economic, political, and cultural institutions, and on individual identity, self-conceptions, social attitudes, and relations.
Prerequisite: SOCIOIYI
SOC2I2YI Deviance and Control 52L
Sociological analysis of deviance (acts or persons that violate the normative structures of society) and social control (societal responses that attempt to reduce, treat, or transform deviance). What is deviance? What are different ways societies respond to deviance? What are the consequences of efforts to regulate, prevent, and punish deviance?
Prerequisite: SOCIOIYI

## SOC2I3YI Law and Society

52L
An introduction to social scientific perspectives and research on the nature, sources, dimensions, and impact of law; conceptual issues and methodological strategies in establishing and

## Sociology

interpreting linkages between legal and other social structures and processes.
Prerequisite: SOCIOIYI

## SOC2I4YI Sociology of the Family 52L, 26T

An examination of cross-cultural variations and social-historical changes in the organization of family life, followed by a critical look at the key activities in family life today. Emphasis is on gender relations.
Prerequisite: SOCIOIYI

## SOC2I5YI Socialization

The acquisition and reproduction of personality, culture, and social structure. The social construction of everyday life and secondary socialization is emphasized, with focus on work and family.
Prerequisite: SOCIOIYI

## SOC2I8YI Asian Communities in Canada 52L (formerly SOC342YI)

The course will explore the structures and processes of Asian communities in Canada. Historical development of various Asian communities will be explored. Other topics include ethnic economy, ethnic media, ethnic churches, and ethnic voluntary organizations in Asian communities. Experts in related topics are invited to present their research findings. Non-sociology students may seek departmental permission to enrol.
Exclusion: SOC $342 \mathrm{YI} / 394 \mathrm{Y}$ I
Prerequisite: SOCIOIYI or permission of Department (see
Department before enroling in course)
SOC220YI Social Inequality in Canada 52L
An analysis of historical and contemporary empirical patterns of inequality in Canada. The focus is on income, power, ethnic, regional, and gender inequalities.
Prerequisite: SOCIOIYI
SOC243HI Sociology of Health and Illness 26L
Provides overview of how social factors influence behaviours related to health and illness, definitions of illness and social responses to illness. Addresses questions such as why rates of illness and responses to illnesses vary with historical and biographic conditions or how behaviours related to health and illness affect social relations.
Exclusion: SOC242YI
Prerequisite: SOCIOIYI
SOC244HI Sociology of Health Care 26L
Examines factors that influence the organizational structure of health care systems, how these organizations develop, how they are maintained, and how they can be change. Topics also include the social forces that influence the relationship between healthcare providers and consumers.
Exclusion: SOC242YI
Prerequisite: SOCIOIYI
SOC246HI The Sociology of Aging 39L
Social gerontology deals with many social aspects of advanced age, e.g. problems of retirement, post-retirement life, living arrangements and family, changes in identity, and new roles for later life, in Canada and in a cross-cultural perspective. Focus is on individual aspects of aging.
Exclusion: SOC245YI
Prerequisite: SOCIOIYI
SOC247HI The Sociology of Aging II 39L
Social gerontology deals with many social aspects of advanced age. This is a continuation of SOC246HI. Focus is on
institutional level analysis of the programs that assist with aging problems.
Exclusion: SOC245YI
Prerequisite: SOC246HI

## SOC250YI Sociology of Religion

This course will examine religious beliefs, practices, and experiences from a historical-sociological and comparative perspective. Classical and contemporary theories will be reviewed and applied to investigate such topics as: the social origins of religions; the formation of religious communities; heresies, schisms and the making of orthodoxies; secularization and fundamentalism; cults and new religious movements; religious regulation of the body and person; and the variable linkages of religion to politics, war, art and science.

## Exclusion: RLG2IOYI

Prerequisite: SOCIOIYI
SOC256HI Lives and Societies 26L
Characteristics of very different kinds of societies, from hunters and gatherers to modern postindustrial countries, and how these affect features of individual lives including: life stages, their status, and transitions between them; the variety of possible life courses; rates of birth and death, and their implications for people, their kin, and their societies.
Exclusion: SOC255YI
Prerequisite: SOCIOIYI
SOC257HI Lives in Canada
26L
The life course in Canada, in the twentieth century and today, with some comparisons to other first world countries. How lives have changed over the past century; how lives are affected by history and social location; the impact of the life trajectories on health and crime.
Exclusion: SOC255YI

## Prerequisite: SOCIOIYI

## SOC260YI Power and Policy in

 $52 L$Examination of the forces and factors that drive and shape policy in Canadian society. The policy areas examined may include: education, labour force and employment, employment equity, ethnocultural relations, and the environment. Exploration of the applications of sociology in the formulation and evaluation of policy choices.
Prerequisite: SOCIOIYI
SOC263HI The Quality of Social Life 26L (formerly SOC262YI)
This course focuses on macro-micro connections between qualities of social aggregates (ranging from families to nations) and the subjective experiences of members of those aggregates (ranging from happiness/satisfaction to social isolation and stigma).
Prerequisite: PSYIOOHI/SOCIOIYI
SOC270HI Comparative Social Inequality 26L
This course offers an introduction to the study of processes of social stratification and structures of inequality with an emphasis on comparative, cross-national studies that include Canada as point of reference.
Prerequisite: SOCIOIYI

## SOC278YI Introduction to Social Policy 52L

I) Introduces students to the theoretical foundations of social policy; and 2) examines some of the key social policy issues. The first part of the course will focus on the theoretical bases of the social policy, including class, gender, race, social citizenship,
and welfare regimes. We will also try to situate these ideas in historical and societal contexts. The second part will examine some of the key social policy issues, such as health care, housing, immigration, race, and politics of welfare retrenchment. Prerequisite: SOCIOIYI

| SOC293YII | Selected Topics in |
| :--- | :--- |
| 294YI/ | Sociological Research |
| 295 YI |  |

295 YI
An opportunity to explore a sociological topic in depth.
Courses relate to instructor's area of research, so topics vary
from year to year. Consult the Departmental website for current course offerings.
Exclusion, Prerequisite, Recommended preparation: varies according to particular course offering; consult descriptions at Departmental website for exact prerequisites

SOC296HI/ Selected Topics in Sociological TBA
297HI/ Research
298HI
An opportunity to explore a sociological topic in depth.
Courses relate to instructor's area of research, so topics vary
from year to year. Consult the Departmental website for current course offerings.
Exclusion, Prerequisite, Recommended preparation: varies according to particular course offering; consult descriptions at Departmental website for exact prerequisites

## SOC299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.

## 300-Series Courses

## Note

Almost all upper-level SOC courses have prerequisites. Students without course prerequisites will be removed at any time they are discovered.

SOC300HI Applications of Quantitative 26L, 26T Methods in the Social Sciences (formerly SOC300YI)
Provides students with the opportunity to develop an understanding of the logic of multivariate analysis applying various strategies for the analysis of complex multivariate data. Enrolment is limited to sociology specialists.
Enrolment is limited to students admitted to the sociology specialist program.
Exclusion: SOC300YI, ECO220YI, PSY202HI, STA222H, STA250HI
Prerequisite: SOC200HI, SOC202HI.

## SOC30IYI Theories of Inequality

Theories of social inequality, its historical evolution, and the determinants of continuity and change of patterns of social inequality.
Prerequisite: SOC203YI

## SOC303HI Family Demography

Describes the political, social and economic implications of diversity in family structure. Uses empirical studies in the sociological tradition to describe current trends in living arrangements and family relationships. Examines social and economic consequences of the inconsistencies between public definitions and the reality of family life.
Prerequisite: SOCIOIYI

## SOC304HI Status Attainment 26L

Shows how "getting ahead" or becoming "downwardly mobile" are affected by social as well as economic factors. Links the experience of mobility to larger scale social change.
Prerequisite: SOCIOIYI

## SOC306YI Sociology of Crime and Delinquency

Examines explanation, theory construction, measurement procedures, and techniques for data collection and analysis within the sociology of crime and delinquency.
Prerequisite: SOCIOIYI

## SOC309YI HIV and AIDS: Social Policies and Programs (formerly SOC309HI)

Explores and discusses specific theories of action. Applies theories to various factors associated with AIDS/HIV. Examines political, scientific, health, social, economic, and cultural environments. This course forces students to examine the hidden theoretical assumptions surrounding AIDS/HIV. Prerequisite: SOCIOIYI
SOC3IOHI The Sociology of Juvenile Crime 26L Examine and evaluate sociological theories and research on the causes and correlates of juvenile crime, with a focus on recent theoretical developments and quantitative analyses of juvenile offending (not delinquency). The course highlights the effects of structural conditions, cultural factors, and individual decisions. Prerequisite: SOCIOIYI
SOC3I2YI Population and Society 52L
Population processes (birth, death, and migration) and their relationship to social, cultural, and economic change. Prerequisite: SOCIOIYI

## SOC3I7YI Industrial Sociology 52L

 (formerly SOC316YI)Labour/management relations in industrial societies; impact of technological change on work organizations and labour markets; implications for understanding various topics including social mobility, labour market segmentation, job satisfaction, work/ family relations, immigration and race, power in organizations, union and industrial conflict, organizational culture, and the social control of industry.
Prerequisite: A 200+ level SOC course
SOC320YI Applied Sociology
52L
Uses of sociological research in guiding social policies and programs. Evaluation research and needs assessment methods are emphasized. Students are required to engage in a research practicum (apprenticeship) at an agency working towards social change or providing social services.
Prerequisite: A 200+ level SOC course
SOC327YI Families and Health
52L
Themes include the demand for caregiving, evolving and emerging diseases (genetic, environmental, social, cancer-linked), state's role in health care, factors affecting caregivers, home health care procedures, how families organize to deal with health problems.
Prerequisite: SOCIOIYI
SOC328HI Descriptive Statistics for Categorical Data
Develops student skills in manipulating cross-classified categorical data as well as the effective presentation and informed interpretation of results. Requires use of internet to
access census tables. Not intended for Sociology Specialists, who must take SOC300YI.
Prerequisite: SOCIOIYI, 200YI
Recommended preparation: OAC/Grade 12 U Mathematics
SOC330YI Comparative Ethnic Relations 52L
Comparative study of interethnic relations, including comparisons of ethnic groups and types of ethnic groups and comparisons of their relative position in different institutions, social structures, and societies. Comparisons made with respect to the impact of society on ethnic groups, and ethnic groups in society.
Prerequisite:A 200+ level SOC course

## SOC336HI Immigration and Race 26L <br> Relations in Canada

Examines the economic, social, cultural and political impacts of 20th century immigration in Canada, and emerging race and ethnic relations. Topics include immigration policy; population impact; community formation; labour markets; enclave economies; welfare use by immigrants; the criminal justice system; racial conflict; multiculturalism and race; and equity policies.
Prerequisite: SOCIOIYI
SOC339HI Immigration and Employment
Examines labour market and employment situation of immigrants, from economic and sociological perspectives, emphasizing recent Canadian experience in comparative context. Topics include immigrant human and social capital, declining immigrant earnings, the knowledge economy, skillunderutilization, racial discrimination, labour market structure, unionization, immigrant entrepreneurship, immigrant offspring, and labour market and immigration policy.
Prerequisite: SOCIOIYI

## SOC34IYI The Jewish Community in Europe and North America

Classical and recent writings on Jewish ethno-national identity in the modern period; communal organization; forms of Jewish life in the diaspora and its relationship to other ethnic groups and to society at large; contemporary role of the Holocaust and ethnic memory; Jews in Canada; gender in the Jewish community.

## SOC343YI Sociology of the Pacific Rim (formerly SOC493YI)

An intensive research/reading course on the links between Pacific Rim society and culture and Canada. Institutional and network bridges between the Asian region and North America. Exclusion: SOC493YI
Prerequisite: A 200+ level SOC course

## SOC344YI Contemporary International 52L Migration

This overview course focuses on trends and issues associated with contemporary international migration flows and migrant settlement. Emphasis is on Canada although attention is also given to other countries. Topics include causes and types of migration, immigration policy, immigrant women, children of immigrants, and health, language and economic issues.

## Prerequisite: SOCIOIYI

## SOC347HI Sociology of Language <br> \section*{(formerly SOC274HI)}

This course studies the effects of language on human societies, focusing attention on how language changes with social class, gender, and social situations. This course will include studies of
language taboos, pidgin and Creole languages, and bilingualism and multilingualism.
Exclusion: JAL253HI, SOC274HI
Prerequisite: SOCIOIYI

## SOC348HI Sociology \& Emotions 26L

This class will provide a broad overview of major issues and theories in the sociology of emotions, and more generally considers the role of emotions in a range of sociological theories. There is an emphasis on how emotions are related to social rankings.
Prerequisite: SOC203YI
SOC350YI Classical Social and 52L, 26P

## Political Thought

A survey of classical social theories from Plato to Nietzsche. Students read excerpts and/or secondary expositions of key social and political ideas of Plato, Aristotle, Machiavelli, Hobbes, Locke, Montesquieu, Rousseau, Nietzsche and others, with a sociological focus.
Prerequisite: SOCIOIYI

## SOC352HI Introduction to Canadian <br> Health Care Policy

This course will introduce students to development and issues related to Canadian health care policy. The course will examine: I) basic policy making process; 2) policy making process in Canadian context; 3) development of Canadian health care policy; and 4) current health care reform debates and issues.
Prerequisite:A 200+ level SOC course
Exclusion: SOC 35IYI, UNI300YI

## SOC354HI Emergent Issues in Health and 26L Social Policies

This course explores emerging issues in health and social policies. Using the framework of social determinants of health, this course examines: I) the implications of social factors such as socio-economic inequity, gender, race, homelessness, age, and citizenship status on individual health, and 2) policy options to address these issues
Prerequisite: SOC352HI
Exclusion: SOC35IYI, UNI300YI

## SOC355YI Structural Analysis 52L

The structure of social relationships, including both personal networks and the overall organization of whole social settings. The role of social structure in social support, access to scarce resources, power conflict, mobilization, diffusion, and beliefs. Prerequisite: SOC200YI

SOC356YI Technology and Society 52L
This course analyzes the interplay between new communication technologies and society. It will consider how technological
developments affect social systems, and conversely, how social systems affect the nature and use of technology. Much of the
course will be devoted to studying the impact of computerization and the advent of the information highway.
Prerequisite: A 200+ level SOC course
SOC358HI Cities and Social Pathology 26L
Focuses on relationship between urbanization and crime. Urbanization and the size of cities are examined as correlates, and perhaps causes, of crime, delinquency, the development of "deviant service centers", mental illness, and suicide. Does housing level show a link between housing design, crowding, floor level, etc. and crime, delinquency, depression?
Prerequisite: SOC205YI or SOC2I2YI

SOC360YI Sociology of Cultural Studies 52L
Examination of cultural process practices through which culture is constituted (ordered) and reproduced. A dominant cultural order is created and reproduced through the process of selective tradition, which is treated as natural and "taken for granted." The cultural processes involve the interaction of economic, political, ideological and cultural practices.
Prerequisite: A 200+ level SOC course

## SOC363HI Sociology of Mental Health and Mental Disorders <br> (formerly SOC262YI, 264HI)

An overview of the link between social inequality and emotional inequality, focusing on differences in mental health across social groups and the role of stress and coping resources in explaining group differences.
Prerequisite: A 200+ level SOC course, PSYIOIHI or a 200+
level PSY course

## SOC364HI Urban Health

26L
Cities are home to particular populations (the poor, the homeless, racial and ethnic minorities, immigrants, and the young and old) and have distinct risks and protections relevant to health. Patterns of health in cities, historical developments, and emerging literature and methodology are used to uncover how everyday settings influence health.
Exclusion: SOC 396 HI in $02-03$ and $04-05$
Prerequisite: A 200+ level SOC course
SOC365YI Gender Relations 52L
Examination of historical and contemporary sources of gender inequity, and the many dimensions of gender difference and inequality today.
Prerequisite: SOCIOIYI
SOC366HI Sociology of Women and Work 26L
Women's paid and unpaid work and the relationship between the two. Questions about gender gap in earnings, sexual segregation of the labour force, restructuring of paid work, sexual harassment, paid domestic work, and the division of housework and child care.
Prerequisite: SOCIOIYI
SOC367HI Race, Class, and Gender
In this class, we analyze the ways in which race, class, gender and sexuality interact and shape communities, life opportunities, perspectives and politics. We will read contemporary ethnographies concerning work, socialization, and urban life against current sociological theories about inequality and intersectionality, and identity.
Prerequisite: SOCIOIYI

## SOC369YI The Canadian Community

Attention focused on case studies which investigate the social organization of Canadian communities. The case study approach emphasizes theory and methods. The major course requirement is an ethnographic study of a "community."
Prerequisite: A 200+ level SOC course

## SOC370YI Sociology of Labour

 78LThe role and development of labour and the labour movement in Canada, its differential success in various industries and regions, and its impact on other aspects of society. Prerequisite: 200+ level SOC course

## SOC373HI Sociology of Disability I <br> (formerly SOC273HI)

The experience of disability and the social definition of the experience for self and others. Combination seminar and lecture format.
Exclusion: SOC273HI
SOC374HI Sociology of Disability II I3L/I3S
The experience of disability and the social definition of the experience for self and others. Combination seminar and lecture format. continuation of Disability I.
Exclusion: offered as SOC297HI in 200 II session
SOC375YI Sociology of Organizations 52L
Internal structure of formal and informal organizations; bureaucracies; patterns of interorganizational relations; impact of organizations on social structure and social classes of different societies.
Prerequisite: A 200+ level SOC course
SOC376HI Theories of Private and Public Life 26L (formerly SOC389YI)
A selective introduction to major thinkers (such as De Beauvoir and Habermas) and approaches in contemporary sociology. Enrolment is limited to students in the sociology specialist program.
Prerequisite SOC203YI
Exclusion: SOC389YI

## SOC377HI Micro and Macro Theory 26L

 (formerly SOC389YI)A selective introduction to major thinkers (such as Fanon, Blau, and Collins) and approaches in contemporary sociology. (adjunct to Theories of Private and Public Life). Topics include the structure-agency debate, methodological individualism, and anticolonialism. Enrolment is limited to students in the sociology specialist program.
Prerequisite: SOC203YI
Exclusion: SOC389YI

## SOC380HI Sociology of Everyday Life 2: 26L

 Institutional ContextThe study of social institutions at the macro and meso- levels, through every day experiences. These broader structures are examined through people's personal experiences. A related course, Soc 388 H , focuses on the structures of social interaction at the micro level. Soc 380 HI compliments that course, but can be taken independently.
Prerequisite: A 200+ level SOC course

## SOC38IYI Culture and Social Structure 52L (formerly SOC393YI)

Our society includes many varieties of cultural tastes and practices. How are these related to inequality? How do cultural repertoires shape people's lives, including school success, careers, romance, marriage and friendship? How is culture produced in art worlds and industries, transmitted more or less successfully and creatively received?
Exclusion: SOC393YI
Prerequisite: SOCIOIYI
SOC382YI 52L
Many on-going changes - in education, crime, family life, population, and the environment, among others - give rise to troubling social problems. This course uses sociological analysis and the findings of sociological research to examine public
discussions and policies proposed to deal with both new and enduring social problems.
Exclusion: SOC399YI
Prerequisite: A 200+level SOC course

## SOC383HI The Sociology of Women and International Migration

Examines the international migration of women in postindustrial economies with emphasis on Canada. Topics include: theories of female migration; the impacts of immigration policies; migration trends and entry status; integration issues pertaining to family, language knowledge, citizenship and economic status; labour market barriers and public policy consideration.
Prerequisite: SOCIOIYI
SOC385HI Social Ecology 26L
Provides a framework for the empirical analysis and practical solution of problems dealing with human well-being which have contextual dimensions. Topics dealt with cover both built and natural environments, as well as aspects of technology. Each student examines a particular problem in detail.
Prerequisite: A 200-level SOC course; or an Environmental Science course focusing on urban and/or natural environments (see Department before enrolling in this course)
SOC386YI Urbanization 52L
Examines explanation, theory construction, measurement procedures, and the logic of quantitative analysis within urban sociology and social demography.
Prerequisite: A 200+ level SOC course

## SOC387HI Qualitative Analysis (formerly SOC387YI)

This course gives students the opportunity to apply their understanding of the research process to the design and implementation of an original research project.
Enrollment is limited to students admitted to the sociology specialist program
Prerequisite: SOC204H
Exclusion: SOC387YI

## SOC388HI Sociology of Everyday Life 26L

Explores the structure and interactions of everyday experience. Views our lives as socially ordered and ourselves as agents.
Offers experience in qualitative research and using writing experience. Not intended for Sociology Specialists, who must take SOC389YI.
Exclusion: SOC387Y I, 405Y।
Prerequisite: SOCIOIYI

## Note

Independent Research courses SOC390YI, 391HI, and 392 HI are restricted. Deadline for submitting applications to Department, including supervisor's approval, is the first day of classes of the session. Strongly recommend earlier application as arrangements with supervisor are required in advance.

SOC390YI/ Independent Research TBA
391HI/
392HI
An opportunity to pursue independently a sociological topic of interest with a Departmental advisor. Intended for students
in a Sociology program who have completed a minimum of 10 courses.
Prerequisite: By application (see Department before session begins). Consult Departmental website for procedure.

## SOC393YI/ Selected Topics in Sociological 394YI Research

An opportunity to explore a sociological topic in depth.
Courses relate to instructor's area of research, so topics vary
from year to year. Consult the Departmental website for current course offerings.
Prerequisite:Varies according to particular course offering; consult description at Departmental website for exact prerequisites
SOC395HI/ Selected Topics in Sociological TBA 396HI/ Research

## 397HI

An opportunity to explore a sociological topic in depth.
Courses relate to instructor's area of research, so topics
vary from year to year.Visit Department or consult the
Departmental website for current course offerings.
Prerequisite:Varies according to particular course offering; consult description at Departmental website for exact prerequisites

## SOC398H0/ Independent Experiential Study Project

399Y0
An instructor-supervised group project in an off-campus setting. See page 47 for details.

## 400-Level Courses

## Note

Almost all upper-level SOC courses have prerequisites. Students without course prerequisites will be removed at any time they are discovered.

SOC40IYI Advanced Seminar
$52 S$
Provides sociology Specialists with an opportunity to explore a sociological topic in depth. Varies in focus from year to year. Consult the Departmental website for current course offering. SOC40IYI is a restricted course. Enrolment is limited to sociology Specialists (see Note I above).
Prerequisite: SOC $300 \mathrm{HI} / 300 \mathrm{YI}, 376 \mathrm{HI}, 377 \mathrm{HI}, 389 \mathrm{YI}$

## SOC 4IOHI Sexuality and Modernity 26L

A sociological examination of sexuality in the modern West, including the treatment of sexuality as a topic of investigation by science (sexology, psychoanalysis), the sociohistorical context of these investigations, and issues around sexuality and urbanization, capitalism, and mass culture more generally.
Prerequisite: 2 full 200 level courses and I full 300 level course; for non-soc majors, by permission of instructor
Recommended Preparation: 2 full 200 level courses and I full 300 level course
SOC442YI Practicum in Health Studies 52L
Individual field placement with a health research or administration professional, in which the student applies theory and skills to a specific project. Culminates in an oral and written report.
Exclusion: UNI400YI
Prerequisite: 300 level sociology course

SOC45IHI Analysis and Interpretation
of Survey Data
Covers statistical methods currently used in the major sociological journals including multiple linear regression, logistic regression, and the fitting of loglinear models to tables of cross-classified categorical data. Stresses presentation skills and sociological interpretation of results.
Prerequisite: SOC300YI; or a full-course equivalent to SOC300YI (see Department before enroling in course)
Recommended preparation: OAC/Grade 12 U Mathematics
SOC452HI Methods and Models of
26L

## Demography

Students learn to calculate life tables and total fertility rates, and apply these concepts in computer projections and simulations.
Prerequisite: SOCIOIYI, 200YI
Recommended preparation: SOC $303 \mathrm{HI}, 3 \mathrm{I} 2 \mathrm{YI}$

## Note

Independent Research courses SOC $490 \mathrm{YI}, 49 \mathrm{IHI}$, and 492 HI are restricted. Deadline for submitting applications to Department, including supervisor's approval, is the first day of classes of the session. Strongly recommend earlier application as arrangements with supervisor are required in advance.

## SOC490Y I/ Independent Research TBA

## 491HI/

## 492HI

An opportunity to pursue independently a sociological topic of interest with a Departmental advisor. Intended for students in a Sociology program who have completed a minimum of 15.0 courses.
Prerequisite: By application (see Department before session begins).Visit Department or consult Departmental website for procedure.
SOC493Y I/ Selected Topics in Sociological TBA 494YI/ Research
495YI
An opportunity to explore a sociological topic in depth. Courses relate to instructor's area of research, so topics vary from year to year.Visit Department or consult the Departmental website for current course offerings.
Prerequisite:Varies according to particular course offering; consult description at Departmental website for exact prerequisites

| SOC496HII | Selected Topics in Sociological |
| :--- | :--- |
| $497 \mathrm{HI} /$ | Research |

498HI
An opportunity to explore a sociological topic in depth. Courses relate to instructor's area of research, so topics vary from year to year.Visit Department or consult the Departmental website for current course offerings.
Prerequisite:Varies according to particular course offering; consult description at Departmental website for exact prerequisites

## Note

Graduate courses available to fourth-year Specialists with permission of the instructor and a minimum GPA of 3.3 for undergraduate program credit. Consult the Department for enrolment procedures.

South Asian Studies: see New College

## Faculty

Professors Emeriti
J.F. Burke, MA, Ph D
K.A.A. Ellis, MA, Ph D, Dr Fil, FRSC
R.J. Glickman, AM, Ph D
J. Gulsoy, MA, Ph D, D Honoris Causa,FRSC
O. Hegyi, MA, Ph D (UTM)
J.G. Hughes, MA, Ph D
P.R. León, MA, Ph D (S)
E.G. Neglia, MA, Ph D (UTM)
W.L. Rolph, MA, Phil M (I)
R. Skyrme, MA, M Litt, Ph D (S)
G.L. Stagg, MBE, MA, AM
M.J. Valdés, MA, Ph D, FRSC, Miembro Correspondiente de la Academia Mexicana (U)
J.R.Webster, MA, Ph D, FRSC (SM)

## Associate Professor and Chair of the

## Department

S.J. Rupp, MA, M Phil, Ph D (V)

## Professors

A. Percival, MA, Ph D
R. Sternberg, MA, Ph D (SM)

Associate Professors
J. Blackmore, MA, Ph D (V)
A.T. Pérez-Leroux, MA, Ph D
R. Sarabia, MA, Ph D

Assistant Professors
L. Colantoni, MA, Ph D
R. Davidson, MA, Ph D
S. Munjic, MA, Ph D
V. Rivas, MA, Ph D
N.E. Rodríguez, Ph D
D. Rojinsky, MA, Ph D

## Lecturer

M. Ramirez, MA, Ph D

Hispanic culture offers a variety probably unrivalled by any other modern Western culture. In the Middle Ages, Spain was the vital point of contact of the Christian, Jewish, and Islamic civilizations. In the early modern period it led the way in the exploration and settlement of the New World, contributing significantly to the evolution of a flourishing lbero-American culture. Today it is estimated that Spanish is one of three most widely-spoken languages in the world.

Spanish studies at the University of Toronto are mainly, but by no means exclusively, concerned with the language and literature of the Spanish-speaking peoples. Courses in Hispanic linguistics, in business Spanish, in the history and structure of the Spanish language and literature are complemented by studies of the social, artistic, and intellectual history of both Spain and Spanish-America. Spanish and Portuguese form part of the interdisciplinary programs in European Studies and LatinAmerican Studies.
The progression of courses in the language sequence is designed to accommodate a wide range of previous preparation in the spoken and written language. In their first year, beginners
receive an intensive course, SPA IOOYI; those with OAC/ Grade 12 standing begin their University studies in SPA 220YI; students who on entry are already well qualified in Spanish and demonstrate both oral and written fluency are expected to proceed directly to more advanced levels of study. Throughout the language stream, stress is laid both on the cultural component of language acquisition and on the range of practical applications to which both the spoken and the written language may be put. Courses in phonetics, in business Spanish, and in the history and structure of the Spanish language provide an array of possible options for students in the upper years.
Following an introduction to the methodologies of critical analysis as applied to Hispanic texts, students have a wide selection of courses on the literatures of Spain and Spanish America: medieval Spanish literature; early modern prose, verse and drama; the modern novel, short story, poetry, drama and film. In all years, the works are read and discussed not only in terms of their individual artistic value but also as illustrations of the outlook and the intellectual climate of their age.
In conjunction with Woodsworth College, the department makes SPA courses available during the summer at the University of Guadalajara. Interested students should contact the Professional and International Programs, Woodsworth College (summer.abroad@utoronto.ca)

For the Portuguese component, see under Portuguese Program in this Calendar.

Undergraduate Coordinator: Professor R. Sarabia (416-8|34082). E-mail: spanport.undergraduate@utoronto.ca

Enquiries:Victoria College, Room 208 (4I6-8I3-4080)

## Spanish Programs

Enrolment in the Spanish programs requires the completion of four degree courses; no minimum GPA required.

## Spanish (Arts program)

Consult Professor R. Sarabia, Department of Spanish and Portuguese.

## Specialist program:

(9 full courses or their equivalent, including at least one 400series course)
First Year:
SPA I00YI/220YI; SPA 3I9YI (for native/bilingual speakers of Spanish)
Second Year:
SPA $220 \mathrm{YI} / 320 \mathrm{Y}$; SPA 420 HI (for speakers who have taken SPA 319 YI in first year)
Third and Fourth Years:
I. SPA $320 \mathrm{YI}, 420 \mathrm{HI}, 454 \mathrm{HI}$
2. SPA 450 HI or 452 HI
3. One 300/400-series half-course in language or linguistics
4. One course in Spanish American literature from the 300/400-series
5. Plus additional SPA courses to make the equivalent of 9 courses. Up to two full-course equivalents may be taken from cognate departmental or college offerings: GGR, HIS, LAS, LIN, POL, PRT. A complete list of eligible courses is
available from the Undergraduate Coordinator. Students interested in Latin America are encouraged to take an introductory course in Portuguese (PRT IOOYI/IIOYI).

## Major program:

(7 full courses or their equivalent)

## First Year:

SPA 100 Y I/220YI; SPA 319 Y I (for native/bilingual speakers of Spanish)
Second Year:
SPA 220YI/320YI; SPA 420HI (for speakers who have taken SPA $319 Y 1$ in first year)
Third and Fourth Years:
I. SPA $320 \mathrm{Y}, 454 \mathrm{HI}$
2. SPA 450 HI or 452 HI
3. SPA 420 HI is recommended for students who start in SPA IOOYI
4. SPA 420 HI is required for students who start in SPA 220 Y I or higher language course; plus a $300 / 400$-series half-course in language or linguistics
5. Plus additional SPA courses, including a half-course in Spanish American literature, to make seven courses. Up to one full-course equivalent may be taken from cognate departmental or college offerings: GGR, HIS, LAS, LIN, POL, PRT.A complete list of eligible courses is available from the Undergraduate Coordinator. Students interested in Latin America are encouraged to take an introductory course in Portuguese (PRT I00YI/IIOYI).

## Minor program:

(4 full courses or their equivalent)
SPA $319 \mathrm{YI} / 320 \mathrm{Y}$ I plus additional SPA courses to make four courses. Up to one full-course equivalent of cognate credit may be taken in Portuguese.

## Spanish: see also European Studies, Latin American Studies, Modern Languages And Literatures, Linguistics And Languages

## Spanish Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), SPA courses are classified as HUMANITIES courses.

## HUM I99YI First Year Seminar <br> $52 S$

Undergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course; see page 47.

## Notes

I.The Department reserves the right to place students in the language course best suited to their linguistic preparation.
2. Students with an adequate knowledge of Spanish may be required to substitute another Spanish literature or culture course for the language course at any level.

## SPAIOOYI Spanish for Beginners 26L, 52T

Introduction to the Spanish language for beginning students; overview of basic grammatical structures, development of vocabulary and oral and written expression.

Exclusion: OAC/Grade I2 U Spanish or equivalent knowledge of Spanish
SPA220YI Intermediate Spanish 52L, 26T
Intermediate Spanish for non-natives. Intensive grammar review of the structures of Spanish integrated with an introduction to reading authentic Spanish material, with practice designed to build vocabulary and to improve oral and written expression.
Exclusion:SPA3I9YI
Prerequisite: OAC/Grade 12 U Spanish/SPAIOOYI
SPA254H0 Mexican Culture 50L
Survey of Mexican culture and society, with attention to central issues in history, politics, education, and popular tradition, and important thinkers of twentieth-century Mexico: Paz, Fuentes, and others. (Offered only in Guadalajara)
Prerequisite: SPA220YI/3I9YI and Placement Examination for the Guadalajara Program
$\begin{array}{ll}\text { SPA258HI } & \begin{array}{l}\text { Introduction to Hispanic } \\ \text { Literary Studies }\end{array}\end{array}$
Introduction to university literary studies in Spanish. Critical
terminology and methods. Representative selections of modern
Spanish and Spanish American prose, poetry, and drama.
(Offered in alternate years)
Prerequisite: OAC/Grade 12 U Spanish/SPAIOOYI
Co-requisite: SPA220YI/3I9YI
SPA259HI Introduction to Hispanic 26L Cultural Studies
Forms of cultural expression in Spain, Latin America and Spanish-speaking North America, with study of representative media, including literature, journalism, film, visual art, and the urban environment. Introduction to methods of cultural analysis. (Offered in alternate years).
Prerequisite: SPA I00YI
Co-requisite: SPA 220YI/3I9YI

## SPA28IYO Art and Politics in Contemporary 75L Mexico

Art and culture since the period of the Mexican Revolution,
studied in the context of political and social developments.
Lectures and readings in English. Field trips around the city of Guadalajara are offered as part of the course. (Offered only in Guadalajara)

## SPA299YI Research Opportunity Program

Credit course for supervised participation in faculty research project. See page 47 for details.
SPA3I7H0 Language Practice 50L
Communication practice in small groups, with an emphasis on skills in speaking, listening, and writing. Selective review of grammatical structures and active vocabulary. (Offered only in Guadalajara)
Prerequisite: SPA220YI/3I9Yand Placement Examination for the Guadalajara Program
SPA3I9YI Spanish for Bilingual and Native 26L Speakers
Survey of the mechanics of writing and basic grammar for fluent speakers of Spanish with limited or no exposure to written Spanish; English/Spanish spelling differences, written and spoken registers of Spanish, basic aspects of the grammatical system. Exclusion: SPA I00YI, 220YI, 320YI

## SPA320YI Advanced Spanish 52L, 26T

Advanced Spanish for non-natives. Selective review of grammar with emphasis on the complex sentence; intensive practice in written and oral expression to improve proficiency.
Exclusion: SPA3I9YI
Prerequisite: SPA220YI
SPA32IHI Spanish Phonetics and Pronunciation26L An introduction to articulatory phonetics, Spanish sound patterns, phonetics, phonology; the basic concepts of phonetic description and transcription; the study of Spanish vowel and consonant systems, stress and intonation.
Prerequisite: SPA220YI/3I9YI
SPA322HI Introduction to Hispanic Linguistics 26L The basic concepts and analytic tools of linguistics applied to the study of Spanish, with a focus on the Spanish phonological, morphological, and syntactic systems. Theoretical discussion and practical exercises in analytic techniques. (offered in alternate years)
Prerequisite: SPA 220YI/3I9YI
Recommended preparation: SPA 321 HI

## SPA323HI Business Spanish (formerly SPA323YI)

Practical uses of spoken and written Spanish for business contexts. This course builds on grammar and vocabulary knowledge already acquired at the intermediate level, and is directed primarily at students pursuing a second major in lberoAmerican Studies or European Studies. (Offered in alternate years)
Exclusion: SPA323YI
Prerequisite: SPA220YI/3I9YI

## SPA324HI Spanish Bilingualism 26L

Spanish bilingualism from three different perspectives: linguistic, sociolinguistic, psycholinguistic. Analysis of typical language contact phenomena with materials from Spanish. Case studies of Spanish in contact and discussion of the psychological consequences of bilingual childhood. Introduction to survey methods in sociolinguistics and psycholinguistics, and basic techniques for conducting language interviews.
Prerequisite: SPA220YI/3I9YI
Recommended preparation: SPA32IHI
SPA325HI Catalan Language and Culture 26L
Study of Catalan language through an overview of grammatical structures and exercises in proficiency skills, complemented by readings in Catalan history and society to attain interdisciplinary cultural literacy. Analysis of works by Llull, March, d'Ors, Gaudi,

## Rodoreda, and others. (Offered in alternate years)

Prerequisite: SPA220YI/PRT220YI or an equivalent course in
French or Italian
Exclusion: SPA225YI
SPA 34IHI Modernist Movements in Spain 26L Literary and artistic movements in Spain from 1890 to 1940, with special attention to the convergence and mutual mediation of politics and art. Materials to be studied include novels, poetry, the urban environment, graphic art, literary journals and manifestos, and some early Hispanic film. (Offered in alternate years)
Prerequisite: SPA220YI/3I9YI
Recommended Preparation: SPA $258 \mathrm{HI} / \mathrm{SPA} 259 \mathrm{HI}$

SPA345HI Spanish Cinema 26L
Analysis of the development of Spanish Cinema within its social and political contexts. Directors studied include Buñuel, Bardem, Erice, Saura, Almodóvar and Bigas Luna. (Offered in alternate years).
Prerequisite: SPA 220YI/3I9YI
Recommended Preparation: SPA258HI/SPA259HI
SPA352HI Writing and Culture in Early 26L Modern Spain
Representative literary and cultural texts from the early modern period, studied in relation to the history and society of imperial Spain. Discussion will centre on such issues as the formation of the state, urbanization, court culture, social order and disorder, and cultural discourses of identity and difference. (Offered in alternate years)
Prerequisite: SPA 220YI/3I9YI
Recommended Preparation: SPA $258 \mathrm{HI} / \mathrm{SPA} 259 \mathrm{HI}$
SPA375HI Latin American Cinema 26L
Latin American cinema within the framework of cultural studies, film theory, and film criticism. Analysis of representative films from Argentina (Solanas, Puenzo), Brazil (Babenco, Camus, Salles), Cuba (Ichaso, Gutiérrez Alea, Solás), Mexico (Ripstein, Cuarón, González Iñárritu), and Venezuela (Román Chalbaud). (Offered in alternate years)
Prerequisite: SPA220YI/SPA3I9YI
Recommended preparation: SPA $258 \mathrm{HI} / 259 \mathrm{HI}$
SPA380HI Colonial Literatures and Cultures 26L Issues of gender, race, and identity in major texts from the colonial period, from the Conquest to the end of the eighteenth century. (Offered in alternate years)
Prerequisite: SPA220YI/3I9YI
Recommended preparation: SPA258HI

## SPA38IHI Nation, Identity and Literary

 Modernism in Spanish-AmericaAnalysis of poetry, short stories, essays, and graphic art in the context of nation-building and the question of identity during the nineteenth century. Modernismo studied as the first literary movement of Spanish American origin. (Offered in alternate years)
Prerequisite: SPA220YI/3I9YI
Recommended preparation: SPA258HI

| SPA382HI | Spanish American Women in <br> Art, Film, and Literature |
| :--- | :--- |

Study of different creative expressions by women in Spanish America from the colonial period to the present; analysis of selected works of visual art, film, essays, poetry, and fiction.
(Offered in alternate years)
Prerequisite: SPA220YI/3I9YI
Recommended preparation: SPA 258 HI
SPA384HI Avant-Garde Movements in 26L Spanish America
Study through representative works of major artistic and literary movements in 20th and 21 st century Spanish America: avant-garde poetry, theatre of the absurd, surrealist art, neorealism, postmodernism. (Offered in alternate years) Prerequisite: SPA220YI/3I9YI
Recommended preparation: SPA258HI

## SPA 385HI Literature and Social Change in Spanish America

Modern literature in its critical relation to social conditions. Emphasis on socio-historical context, ideologies of the period and writers' views of their social responsibility as a framework for literary analysis (Offered in alternate years)
Prerequisite: SPA220YI/3I9YI
Recommended preparation: SPA258HI
SPA387H0 Contemporary Mexican Literature 50L Social change and literary innovation in Mexican literature since the 1950s; analysis of selections from Agustín, Juan Rulfo, Carlos Fuentes, Fernando del Paso, Octavio Paz, Laura Esquivel, and others. (Offered only in Guadalajara)
Prerequisite: SPA220HI/3I9YI and Placement Examination for the Guadalajara Program

## SPA398H0/ Independent Experiential Study Project 399Y0 <br> An instructor-supervised group project in an off-campus setting. See page 47 for details.

## SPA420HI Advanced Grammar

26L
Linguistic analysis with the objective of improving students' command of Spanish grammar. Advanced review of traditional grammatical topics, including the verbal and pronominal systems, and Spanish copulas and embedded clauses. This course assumes familiarity with the grammatical terminology introduced in SPA 220YI.
Prerequisite: SPA3I9YI/320YI
SPA42IHI The Structure of Spanish 26L
Study of Spanish morphology and syntax: syntactic categories in Spanish, the structure and interpretation of simple and complex sentences. (Offered in alternate years)
Prerequisite: SPA3I9YI/320YI, 32 IHI or permission of department
Recommended preparation: SPA322HI
SPA422HI Sociolinguistics of Spanish 26L
Study of linguistic variation across the Spanish-speaking world; central issues in phonological, morphological, and syntactic variation, analyzed from a geographical as well as from a social point of view. (Offered in alternate years)
Prerequisite: SPA $32 \mathrm{IHI}, 420 \mathrm{HI}$ or permission of the department
Recommended preparation: SPA322HI
SPA425HI History of the Spanish Language 26L
The evolution of Spanish. The dialectalization of Hispano-Latin through inherent linguistic changes and influences from other languages and the development of Castilian into one of the world's most important languages. (Offered in alternate years)
Prerequisite: SPA220YI/3I9YI, 32 IHI ; SPA 42 IHI strongly recommended
SPA435HI Fictions of Contemporary Spain 26L
Study of major currents in narrative fiction during the last twenty years, a period of return to democratic government, the relaxing of censorship and the opening up of Spanish culture.
Analysis of works from several generations of male and female writers. (Offered in alternate years)
Prerequisite: SPA220YI/3I9Y|
Recommended preparation: SPA258HI

## SPA438HI

Topics in Modern Spanish
Literature

A course on a specific topic in modern Spanish literature, designed for advanced students. Course content and instructor are established on a yearly basis.
Prerequisite: SPA220YI/3I9YI

## SPA450HI

## Studies in Medieval Iberian Literature

Medieval works studied in relation to literary and cultural traditions. Issues of genre, discourse, and ideology are scrutinized in various texts, including lyric, narrative, and moral and didactic writings. (Offered in alternate years)
Prerequisite: SPA220YI/3I9YI
Recommended preparation: SPA352HI

## SPA452HI Theatre and Representation in 26L <br> Golden Age Spain

Study of theatre and the idea of representation, with reference to parallels in lyric poetry and visual art. Emphasis on the Spanish comedia as a genre, and on its interaction with other artistic forms in the Golden Age. (Offered in alternate years) Exclusion: SPA350YI
Prerequisite: SPA220YI/3I9YI
Recommended preparation: SPA320YI, 352HI
SPA454H I Cervantes and Golden Age 26L

## Narrative

Detailed study of Don Quixote as a foundational text in the European literary tradition, with attention to the conventions, genres, and literary techniques that inform the text. Parallel readings in romance, picaresque fiction, and the ballad tradition. Exclusion: SPA350YI
Prerequisite: SPA220YI/3I9YI
Recommended preparation: SPA329YI, 352HI
SPA467HI Topics in Spanish-American
26L Culture
A course on a specific topic in Spanish American culture, designed for advanced students. Course content and instructor are established on a yearly basis.
Prerequisite: SPA220YI/SPA3I9YI

## SPA468HI Topics in Modern Spanish26S American Literature

A course on a specific topic in Spanish American literature, designed for advanced students. Course content and instructor are established on a yearly basis.
Prerequisite: SPA220YI/3I9YI
SPA47IHI The Historical Novel in 26L Spanish America
Issues of nationalism, historical awareness, and the rewriting of the past in Spanish American fiction, with detailed study of representative texts. (Offered in alternate years)
Prerequisite: SPA220YI/3I9YI
Recommended preparation: SPA258HI
SPA480HI Theories of Culture in
Latin America
Theories of cultural identity and production, as articulated by Latin American thinkers since the Independence period. Issues for study will include civilization and barbarity, cultural imperialism, the commodification and consumption of cultural icons, museums, the mass media and national identity, processes of transculturation and cultural hybridity. (Offered in alternate years)
Prerequisite: SPA220YI/3I9Y
Recommended Preparation: SPA258HI/259HI

## Spanish

## SPA482HI 20th-Century Spanish <br> 26L American Narrative

Detailed study of the major movements in Spanish-American narrative, including magic realism, fantastic literature, women's writing, and testimonial literature, through analysis of representative novels and short stories. (Offered in alternate years)
Prerequisite: SPA220YI/3I9YI
Recommended preparation: SPA 258 HI

## SPA486HI Contemporary Caribbean 26L

## Literatures and Identities

Literature studied as a socio-political space for the articulation of new concepts of cultural identity; examination of cultural change and aesthetic innovation in selected poetic, dramatic, and narrative texts from different national traditions (Cuba, the Dominican Republic, Puerto Rico). (Offered in alternate years) Prerequisite: SPA220YI/3I9YI
Recommended preparation: SPA258HI

## SPA487HI The Culture of Revolution 26L

Detailed study of key moments and texts in Spanish American culture from the nineteenth and twentieth centuries, focussing on such topics as the creation of new nations, indigenismo,
Caribbean anti-slavery literature, and the Mexican and Cuban
Revolutions. (Offered in alternate years)
Prerequisite: SPA220YI/3I9YI
Recommended preparation: SPA $258 \mathrm{HI} / 259 \mathrm{HI}$
SPA490HI/ Independent Study TBA

## 491HI

Individual study with a member of staff on a topic of common interest including readings, discussion and written assignments. Prerequisite:SPA3I9YI/320YI and written approval of the

Undergraduate Coordinator

## Faculty

## Professors Emeriti

D.F.Andrews, M Sc, Ph D
D.A.S. Fraser, BA, Ph D, FRSC
I. Guttman, MA, Ph D M.S. Srivastava, M Sc, Ph D

Professor and Chair of the Department
K. Knight, M Sc, Ph D

Professor and Associate Chair - Graduate

## Studies

A. Feuerverger, B Sc, Ph D

Professor and Associate Chair Undergraduate Studies
D. Brenner M Sc, Ph D

University Professor
N.M. Reid, M Sc, Ph D, FRSC

## Professors

S. Broverman, M Sc, Ph D, ASA
M.J. Evans, MA, Ph D (UTSC)
A. Feuerverger, B Sc, Ph D
X.S. Lin, M Sc, Ph D, ASA
P. McDunnough, M Sc, Ph D
R. Neal, B Sc, Ph D
J. Quastel, MS, Ph D
J.S. Rosenthal, MA, Ph D
J. Stafford, M Sc, Ph D

## Associate Professors

D. Brenner, M Sc, Ph D
L.J. Brunner, MA, Ph D (UTM)
R. Craiu, B Sc, Ph D

## Assistant Professors

O. Angel, B Sc, Ph D (UTM)
A. Badescu, B Sc, M Sc, Ph D
S. Jaimungal, B A Sc, M Sc, Ph D
B.Virág, Ph D (UTSC)
F.Yao, B Sc, M Sc, Ph D

## Senior Lecturer

A. Gibbs, B Math, B Ed, M Sc, Ph D
S.A. Hashim, B Sc, Ph D (UTSC)
A.M.Vukov, MA,ASA
A. Weir, B Sc, M Sc, Ph D (UTM)

## Lecturer

K. Butler, M Sc, Ph D (UTSC)

Statistical methods have applications in almost all areas of science, engineering, business, government, and industry. The practising statistician is involved in such diverse projects as designing clinical trials to test a new drug, economic modelbuilding to evaluate the costs of a guaranteed-income scheme, predicting the outcome of a national election, planning a survey of television viewing habits, and estimating animal populations.

Today's consumer is bombarded with the results of so many quantitative studies using statistical methodology that it is
necessary to know something about statistics in order to be properly critical. A basic knowledge of statistics should be an integral part of everyone's general education.

Probability theory is used to analyse the changing balance among the age-groups in a population as the birth rate changes, the control force needed to keep an aircraft on course through gusts of wind, the chance that the demand for electricity by all the customers served by a substation will exceed its capacity. These are just three of many phenomena that can be analysed in terms of randomness and probability.

The course offerings are intended not only for specialists in the theory of the subject but also to serve the needs of the many other disciplines that use statistical methods, e.g. in sample survey design and experimental design. Students following the Specialist Program are encouraged to include courses in major fields of application in their overall program. The Major Program can be profitably combined with specialization in another discipline. Students in these programs may also qualify for the A.Stat. designation from the Statistical Society of Canada.

Both applied and theoretical courses are offered in Statistics and Probability. The foundation courses STA $220 \mathrm{HI}, 22 \mathrm{IHI}$, $250 \mathrm{HI}, 255 \mathrm{HI}, 257 \mathrm{HI}$, and 26 IHI are distinguished primarily by their mathematical demands, as indicated by the prerequisites. Students interested in the Biological or Social Sciences will generally find the most relevant courses of the more advanced courses to be STA $302 \mathrm{HI}, 322 \mathrm{HI}, 332 \mathrm{HI}$, and 429 HI .
Furthermore, the probability course STA 347 HI will be of interest to those whose field of application includes stochastic models.

Associate Chair, Undergraduate Studies: Professor D. Brenner; e-mail: brenner@utstat.utoronto.ca

Enquiries: 100 St. George Street, Sidney Smith Hall, Room 6018 (416-978-3452)

## Statistics Programs

Enrolment in these programs requires completion of four courses; no minimum GPA is required.

## Statistics (Science program)

## Specialist program:

(I I full courses or their equivalent, including at least one 400series course)

First Year:
CSC $148 \mathrm{HI} / 260 \mathrm{HI}$ (may be taken in 2nd year); MAT I37YI/I57Y|
Second Year:
MAT $223 \mathrm{HI} / 240 \mathrm{HI}, 224 \mathrm{HI} / 247 \mathrm{HI} ;$ MAT $237 \mathrm{YI} / 235 \mathrm{YI} / 257 \mathrm{YI}$;
STA $(257 \mathrm{HI}, 26 \mathrm{IHI})$ (MAT $223 \mathrm{HI} / 240 \mathrm{HI}$ recommended in First Year)
Higher Years:
I. STA $302 \mathrm{HI}, 347 \mathrm{HI}, 352 \mathrm{YI}$
2. I.5 courses from Group A (MAT 237 Y I required) or 1.5 courses from Group B:
3. I. 0 course from:APM $346 \mathrm{HI} / 35 \mathrm{IYI}, \mathrm{MAT} 334 \mathrm{HI} / 354 \mathrm{HI}$, $337 \mathrm{HI} / 357 \mathrm{HI}, 30 \mathrm{HI} / 347 \mathrm{Y} \mathrm{I}$
4. 2.0 full courses from: ACT 300+ level courses; CSC $336 \mathrm{HI} / 350 \mathrm{HI}, 354 \mathrm{HI}, 384 \mathrm{HI}$; STA $300+$ level courses

## Statistics

## Group A:

STA $4 \mathrm{IOHI} / 442 \mathrm{HI}, 4 \mathrm{I} 4 \mathrm{HI} / 422 \mathrm{HI} / 438 \mathrm{HI}, 447 \mathrm{HI}$

## Group B:

STA $4 \mathrm{I} 0 \mathrm{HI}, 442 \mathrm{HI}, 4 \mathrm{I} 4 \mathrm{HI} / 437 \mathrm{HI} / 457 \mathrm{HI}$
Note
Substitutions of other Science/Social Science 300+ level courses for up to 1.0 courses in 4 . above are possible with approval of the Undergraduate Coordinator
Major program:
(6.5 full courses or their equivalent)

## First Year:

CSC $108 \mathrm{HI} / 148 \mathrm{HI} / 260 \mathrm{HI}$ (may be taken in 2nd year); MAT I35YI/I37YI/I57YI
Second Year:
MAT $223 \mathrm{HI} / 240 \mathrm{HI}, 235 \mathrm{YI} / 237 \mathrm{YI} / 257 \mathrm{YI}$; STA ( $257 \mathrm{HI}, 26 \mathrm{IHI}$ )/ $(250 \mathrm{HI}, 255 \mathrm{HI}) /(247 \mathrm{HI}, 248 \mathrm{HI})$
(MAT $223 \mathrm{HI} / 240 \mathrm{HI}$ recommended in First Year)
Higher Years:
I. STA 302 HI
2. A selection of four STA half-courses from STA 322 HI , $332 \mathrm{HI}, 347 \mathrm{HI}, 352 \mathrm{YI}, 4 \mathrm{I} 0 \mathrm{HI}, 4 \mathrm{I} 4 \mathrm{HI}, 422 \mathrm{HI}, 437 \mathrm{HI}$, $438 \mathrm{HI}, 442 \mathrm{HI}, 457 \mathrm{HI}, 447 \mathrm{HI}, 450 \mathrm{HI}$

## Note

Suggested combinations for the four STA half courses are as follows:
I. Four of: STA $347 \mathrm{HI}, 352 \mathrm{YI}, 447 \mathrm{HI}$
2. Four of: STA $322 \mathrm{HI}, 332 \mathrm{HI}, 4 \mathrm{IOHI}, 437 \mathrm{HI}, 442 \mathrm{HI}, 457 \mathrm{HI}$
3. Four of: STA $332 \mathrm{HI}, 347 \mathrm{HI}, 4 \mathrm{I} 0 \mathrm{HI} / 437 \mathrm{HI}, 442 \mathrm{HI} / 422 \mathrm{HI}$

## Minor program:

(4 full courses or their equivalent)
I. MAT I $35 \mathrm{YI} / \mathrm{I} 37 \mathrm{Y}$ I
2. MAT $223 \mathrm{HI} / 240 \mathrm{HI}$; STA $(250 \mathrm{HI} /(220 \mathrm{HI}, 22 \mathrm{IHI}), 255 \mathrm{HI}) /$ STA $(247 \mathrm{HI}, 248 \mathrm{HI}) /$ STA $(257 \mathrm{HI}, 26 \mathrm{IHI})$
3. STA $(302 \mathrm{HI}, 352 \mathrm{YI}) /$ three STA half-courses at the 300/400-level

## Statistics and Computer Science - See Computer Science

## Statistics and Economics - See Economics

Statistics and Mathematics (Science program)
Consult Professor J.S. Rosenthal, Department of Statistics.

## Specialist program:

(II full courses or their equivalent, including at least one 400series course)
First Year:
MAT $157 \mathrm{YI}, 240 \mathrm{HI}$
Second Year:
MAT $247 \mathrm{HI}, 257 \mathrm{YI}, 267 \mathrm{HI}$, STA $257 \mathrm{HI}, 26 \mathrm{IHI}$
Third and Fourth Years:
I. MAT $327 \mathrm{HI}, 354 \mathrm{HI}, 357 \mathrm{HI}$; STA $352 \mathrm{YI}, 347 \mathrm{HI}, 447 \mathrm{HI}$
2. At least 2 half-courses from STA $302 \mathrm{HI}, 332 \mathrm{HI}, 4 \mathrm{I} 0 \mathrm{HI}$, $4 \mathrm{I} 4 \mathrm{HI}, 437 \mathrm{HI}, 442 \mathrm{HI}, 450 \mathrm{HI}$
3. At least 2 half-courses from STA $422 \mathrm{HI}, 438 \mathrm{HI}, 457 \mathrm{HI}$
4. At least one $300+$ level f.c.e. from APM, CSC, MAT

## Note

The Department recommends that PHY I40YI be taken in first year, and that CSC $148 \mathrm{HI} / 260 \mathrm{HI}$ be taken during the program

## Statistics Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27) STA
$220 \mathrm{HI}, 22 \mathrm{IHI}, 250 \mathrm{HI}, 255 \mathrm{HI}$, and 257 HI have NO distribution requirement status; STA 429 HI is a SCIENCE or SOCIAL SCIENCE course; all other STA courses are classified as SCIENCE courses.

## SCII99HI/YI First Year Seminar

 52SUndergraduate seminar that focuses on specific ideas, questions, phenomena or controversies, taught by a regular Faculty member deeply engaged in the discipline. Open only to newly admitted first year students. It may serve as a distribution requirement course; see page 47.
STAI07HI An Introduction to Probability 39L, I3T and Modelling
Introduction to the theory of probability, with emphasis on the construction of discrete probability models for applications. After this course, students are expected to understand the concept of randomness and aspects of its mathematical representation. Topics include random variables, Venn diagrams, discrete probability distributions, expectation and variance, independence, conditional probability, the central limit theorem, applications to the analysis of algorithms and simulating systems such as queues.
Exclusion: ECO220YI, ECO227YI/STA247HISTA255HI/257HI/
Co-requisite: $\mathrm{MAT} 135 \mathrm{YI} / \mathrm{I} 37 \mathrm{YI} / 157 \mathrm{YI}$ (MATI $37 \mathrm{Y} I / / 57 \mathrm{YI}$ is strongly recommended; MATI 33 YI is not acceptable)
STA220HI The Practice of Statistics I 39L, I3T
An introductory course in statistical concepts and methods, emphasizing exploratory data analysis for univariate and bivariate data, sampling and experimental designs, basic probability models, estimation and tests of hypothesis in one-sample and comparative two-sample studies. A statistical computing package is used but no prior computing experience is assumed.
Exclusion: ECO220YI/227YI/GGR270HI/PSY20IHI/ SOC300YI/STA $250 \mathrm{HI} / 26 \mathrm{IHI} / 248 \mathrm{HI}$
Prerequisite: Grade 12 Mathematics and one University course in the physical, social, or life sciences
STA220HI does not count as a distribution requirement course.
STA22IHI The Practice of Statistics II 39L, 13T
Continuation of STA 220 HI , emphasizing major methods of data analysis such as analysis of variance for one factor and multiple factor designs, regression models, categorical and nonparametric methods.
Exclusion:ECO220YI/227YI/GGR270YI /PSY202HI/ SOC $300 \mathrm{YI} / \mathrm{STA} 26 \mathrm{IHI} / 250 \mathrm{HI} / 248 \mathrm{HI}$
Prerequisite: STA220HI
STA22 IHI does not count as a distribution requirement course.
STA247HI Probability with Computer 39L, I3T Applications
Introduction to the theory of probability, with emphasis on applications in computer science. The topics covered include random variables, discrete and continuous probability distributions, expectation and variance, independence, conditional probability, normal, exponential, binomial, and Poisson distributions, the central limit theorem, sampling distributions, estimation and testing, applications to the analysis of algorithms, and simulating systems such as queues.

Prerequisite: MAT $135 \mathrm{YI} / / 37 \mathrm{YI} / \mathrm{I} 57 \mathrm{Y} \mathrm{I} ; \mathrm{CSC} 108 \mathrm{HI} / 148 \mathrm{HI}$ Exclusion: ECO $227 \mathrm{YI} / \mathrm{STA} 255 \mathrm{HI} / 257 \mathrm{HI}$

## STA248HI Statistics for Computer 39L, I3T Scientists

A survey of statistical methodology with emphasis on data analysis and applications. The topics covered include descriptive statistics, data collection and the design of experiments, univariate and multivariate design, tests of significance and confidence intervals, power, multiple regressions and the analysis of variance, and count data. Students learn to use a statistical computer package as part of the course.
Prerequisite: STA $247 \mathrm{HI} / 255 \mathrm{HI} / 257 \mathrm{HI}$; CSC $108 \mathrm{HI} / 148 \mathrm{HI}$ Exclusion: ECO 220YI/227YI/GGR $270 \mathrm{YII} / \mathrm{PSY} 201 \mathrm{HI} / \mathrm{SOC}$ $300 \mathrm{Y} / / \mathrm{STA} 220 \mathrm{HI} / 22 \mathrm{IHI} / 250 \mathrm{HI} / 26 \mathrm{IHI}$

## STA250HI Statistical Concepts 39L, I3T

A survey of statistical methodology with emphasis on data analysis and applications. The topics covered include descriptive statistics, basic probability, simulation, data collection and the design of experiments, tests of significance and confidence intervals, power, multiple regression and the analysis of variance, and count data. Students learn to use a statistical computer package as part of the course.
Exclusion: ECO220YI/227YI/GGR270YI/PSY20IHI/
SOC $300 \mathrm{YI} / \mathrm{STA} 220 \mathrm{HI} / 26 \mathrm{IHI} / 22 \mathrm{IHI} / 248 \mathrm{HI}$
Prerequisite: MATI33YI/I35YI/I37YI/I57Y|
STA250HI does not count as a distribution requirement course
STA255HI Statistical Theory 39L, I3T
This courses deals with the mathematical aspects of some of the topics discussed in STA250HI. Topics include discrete and continuous probability distributions, conditional probability, expectation, sampling distributions, estimation and testing, the linear model.
Exclusion: ECO220YI/227YI/STA $257 \mathrm{HI} / 26 \mathrm{IHI} / 247 \mathrm{HI} / 248 \mathrm{HI}$
Prerequisite: STA $250 \mathrm{HI} / 22 \mathrm{IHI}, \mathrm{MAT} 135 \mathrm{YI} / \mathrm{I} 37 \mathrm{Y} \mathrm{I} / \mathrm{I} 57 \mathrm{Y} \mathrm{I}$
STA255HI does not count as a distribution requirement course.
STA257HI Probability and Statistics I 39L, I3T
This course covers probability including its role in statistical modelling. Topics include probability distributions, expectation, continuous and discrete random variables and vectors, distribution functions. Basic limiting results and the normal distribution presented with a view to their applications in statistics.
Exclusion: ECO227YI/STA255HI/247HI
Prerequisite: MATI35YI/I37YI/I57YI (MATI37YI/I57YI is strongly recommended)
Co-requisite: MAT235YI/237YI/257YI (MAT237YI/257YI is strongly recommended)
STA257HI does not count as a distribution requirement course.
STA26IHI Probability and Statistics II 39L, I3T
A sequel to STA257HI giving an introduction to current statistical theory and methods. Topics include: estimation, testing, and confidence intervals; unbiasedness, sufficiency, likelihood; simple linear and generalized linear models.
Exclusion: ECO227YISTA248HI/255HI
Prerequisite: STA257HI
STA299YI Research Opportunity Program
Credit course for supervised participation in faculty research project. See page 47 for details.

## STA302HI Regression Analysis

39L
Analysis of the multiple regression model by least squares; statistical properties of least squares analysis, estimate of error; residual and regression sums of squares; distribution theory under normality of the observations; confidence regions and intervals; tests for normality; variance stabilizing transformations, multicollinearity, variable search method.
Exclusion: ECO327YI/357YI
Prerequisite: STA $255 \mathrm{HI} / 248 \mathrm{HI} / 26 \mathrm{IHI} / E C O 220 \mathrm{YI}(70 \%) /$ 227YI/(STA257HI, MAT224HI)
STA322HI Design of Sample Surveys 39L
Designing samples for valid inferences about populations at reasonable cost: stratification, cluster/multi-stage sampling, unequal probability selection, ratio estimation, control of non-sampling errors (e.g. non-response, sensitive questions, interviewer bias).
Prerequisite: ECO220YI/227YI/GGR270HI / PSY202HI/ SOC $300 \mathrm{Y} / / S T A 22 \mathrm{IHI} / 255 \mathrm{HI} / 26 \mathrm{IHI} / 248 \mathrm{HI}$
STA332HI Experimental Design 39L (formerly STA402HI)
Design and analysis of experiments: randomization; analysis of variance; block designs; orthogonal polynomials; factorial designs; response surface methodology; designs for quality control.
Prerequisite: STA $302 \mathrm{HI} / 352 \mathrm{YI} / \mathrm{ECO} 327 \mathrm{YI} / 357 \mathrm{Y}$ I
Exclusion: STA 402 HI
STA347HI Probability
39L
An overview of probability from a non-measure theoretic point of view. Random variables/vectors; independence, conditional expectation/probability and consequences.Various types of convergence leading to proofs of the major theorems in basic probability. An introduction to simple stochastic processes such as Poisson and branching processes.
Prerequisite: STA $247 \mathrm{HI} / 255 \mathrm{HI} / 257 \mathrm{HI} /(\mathrm{ECO} 227$, MAT $237 \mathrm{YI} /$ 257YI), MAT235YI/237YI/257YI (MAT237YI/257YI and STA 257 HI are strongly recommended)
STA352YI Introduction to
78L
Mathematical Statistics
Introduction to statistical theory and its application. Basic inference concepts. Likelihood function, Likelihood statistic. Simple large sample theory. Least squares and generalizations, survey of estimation methods. Testing hypotheses, p -values and confidence intervals. Bayesian-fequentist interface. Analysis of Variance from a vector-geometric viewpoint. Conditional inference.
Prerequisite: MAT235YI/MAT237YI/MAT257YI; STA26IHI/
(STA257HI, MAT224HI)/(ECO227YI, MAT237YI/
MAT257YI) (MAT237YI/MAT257YI very strongly recommended).
STA398H0/ Independent Experiential Study Project 399Y0
An instructor-supervised group project in an off-campus setting. See page 47 for details.

## STA4IOHI Statistical Computation <br> 39L

Programming in an interactive statistical environment.
Generating random variates and evaluating statistical methods by simulation. Algorithms for linear models, maximum likelihood estimation, and Bayesian inference. Statistical algorithms such as the Kalman filter and the EM algorithm. Graphical display of data.
Prerequisite: STA $302 \mathrm{HI}, \mathrm{CSCI} 08 \mathrm{HI}$

## Statistics

## STA4I4HI Statistical Methods for Data 52L, 26P Mining and Machine Learning

Statistical aspects of supervised learning: regression with spline bases, regularization methods, parametric and nonparametric classification methods, nearest neighbours, cross-validation and model selection, generalized additive models, trees, model averaging, clustering and nearest neigtbour methods for unsupervised learning.
Prerequisite: STA302HI/CSC4IIHI
STA422HI Theory of Statistical Inference 39L
The course discusses foundational aspects of various theories of statistics. Specific topics covered include: likelihood based inference, decision theory, fiducial and structural inference, Bayesian inference.

## Prerequisite: STA352YI

## STA429HI Advanced Statistics for the Life and Social Sciences

The course discusses many advanced statistical methods used in the life and social sciences. Emphasis is on learning how to become a critical interpreter of these methodologies while keeping mathematical requirements low. Topics covered include multiple regression, logistic regression, discriminant and cluster analysis, principal components and factor analysis.
Exclusion:All 300+ level STA courses except STA322HI
Prerequisite: ECO220YI/227YI/GGR270YI /PSY202HI/
SOC 300 Y I/STA $221 \mathrm{HI} / 250 \mathrm{HI}$
STA429HI does not count towards any STA programs
STA437HI Applied Multivariate Statistics 26L, I3P Practical techniques for the analysis of multivariate data; fundamental methods of data reduction with an introduction to underlying distribution theory; basic estimation and hypothesis testing for multivariate means and variances; regression coefficients; principal components and partial, multiple and canonical correlations; multivariate analysis of variance; profile analysis and curve fitting for repeated measurements; classification and the linear discriminant function.
Prerequisite: ECO327YI/357YI/STA302HI/352YI
Recommended preparation:APM233YI/MAT $223 \mathrm{HI} / 240 \mathrm{HI}$
STA438HI Theoretical Multivariate Statistics 39L
An introductory survey of current multivariate analysis, multivariate normal distributions, distribution of multiple and partial correlations, Wishart distributions, distribution of Hotelling's T2, testing and estimation of regression parameters, classification and discrimination.
Prerequisite: MAT223HI/240HI, STA $352 \mathrm{YI} / 437 \mathrm{HI}$ (STA352YI strongly recommended)

## STA442HI Methods of Applied Statistics 39L

Advanced topics in statistics and data analysis with emphasis on applications. Diagnostics and residuals in linear models, introductions to generalized linear models, graphical methods, additional topics such as random effects models, split plot designs, smoothing and density estimation, analysis of censored data, introduced as needed in the context of case studies. Prerequisite: ECO327YI/357YI/STA302HI

## STA447HI Stochastic Processes (formerly STA348HI)

Discrete and continuous time processes with an emphasis on Markov, Gaussian and renewal processes. Martingales and further limit theorems. A variety of applications taken from some of the following areas are discussed in the context of stochastic modeling: Information Theory, Quantum Mechanics,

Statistical Analyses of Stochastic Processes, Population Growth Models, Reliability, Queuing Models, Stochastic Calculus, Simulation (Monte Carlo Methods).
Exclusion: STA348HI
Prerequisite: STA347HI
STA450HI Topics in Statistics 39L
Topics of current research interest are covered. Topics change from year to year, and students should consult the department for information on material presented in a given year.
STA457HI Time Series Analysis 39L
An overview of methods and problems in the analysis of time series data. Topics include: descriptive methods, filtering and smoothing time series, theory of stationary processes, identification and estimation of time series models, forecasting, seasonal adjustment, spectral estimation, bivariate time series models.
Prerequisite: ECO327YI/357YI/STA302HI
Recommended preparation: MAT235YI/237YI/257YI
STA496HI/ Readings in Statistics TBA

## 497HI

Independent study under the direction of a faculty member. Persons wishing to take this course must have the permission of the Undergraduate Secretary and of the prospective supervisor.
STA498Y I/ Readings in Statistics TBA

499YI
Independent study under the direction of a faculty member. Persons wishing to take this course must have the permission of the Undergraduate Secretary and of the prospective supervisor.

Trinity College offers Trinity One, a set of first-year courses, an independent studies program, and three inter-disciplinary programs: Ethics, Society, and Law; Immunology; and International Relations. The Major Program in Ethics, Society, and Law assembles courses offered by a variety of Departments and Colleges, including History, Philosophy, Political Science, Religion, Sociology, and Woodsworth College. The Specialist Program in Immunology is assembled from offerings by the Departments of Biochemistry, Immunology, Microbiology, and Molecular Genetics and Molecular Biology. The International Relations Program encompasses courses offered by the Departments of History, Political Science, and Economics.

## Trinity One

Trinity One provides first-year students with the opportunity to explore together significant issues and ideas pertaining to the conduct of human life and world affairs. There are two streams in Trinity One, each linked to a prominent aspect of the College's intellectual identity. One of the streams focuses on international relations, the other on ethics. Each stream includes two seminar courses limited to 25 students. These courses foster small-group discussion and emphasize the development of critical-thinking, oral-presentation, writing and research skills. Cocurricular events, drawing upon the resources of the Munk Centre for International Studies at Trinity College and the University of Toronto's Centre for Ethics (located at Trinity), enable students in both streams of Trinity One to hear guest speakers and to engage in informal conversation with one another and with their professors.

## Trinity College Programs

## Ethics, Society, and Law (Arts program)

Consult: Prof. John Duncan, Room 216, Larkin Building, Trinity College, 416-978-2I65.
Enrolment is limited to students with a CGPA of 2.80 who have completed four courses.

## Major program

(7 full courses or their equivalent)
The following requirements apply to students who enrol in the program beginning in 2007-08 (starting in April 2008). The requirements in the 2006-07 Calendar apply to students who enrolled in the program prior to 2007-08.
I. PHL 27 IHI (recommended to be taken in the first year of registration in the program)
2. POL $200 \mathrm{YI} / \mathrm{PHL} 265 \mathrm{HI} / \mathrm{PHL} 275 \mathrm{HI}$ (to be taken in any year of registration in the program)
3. TRN 303 HI (to be taken in the second year of registration in the program)
4. TRN $4 I 2 \mathrm{HI}$ (to be taken in the final year of registration in the program)
5. If POL 200 Y 1 is taken in satisfaction of requirement 2 above, then 4.5 full courses or the equivalent must be taken from Groups A-D, including at least one from each of Groups A-C and at least two at the 300+ level. If PHL $265 \mathrm{HI} / \mathrm{PHL} 275 \mathrm{HI}$ is taken in satisfaction of requirement 2 above, then five full courses or the equivalent must be taken from Groups A-D, including at least one from each of Groups A-C and at least two at the $300+$ level.

## Group A (Ethics)

PHL273HI, $275 \mathrm{HI}, 28 \mathrm{IYI}, 295 \mathrm{HI}, 34 \mathrm{IHI}, 373 \mathrm{HI}, 375 \mathrm{HI}$, $378 \mathrm{HI}, 380 \mathrm{HI}, 38 \mathrm{HI}, 382 \mathrm{HI}, 383 \mathrm{HI}, 384 \mathrm{HI}, 394 \mathrm{HI}, 407 \mathrm{HI}$; POL330HI; PSY3I4HI; RLG22IHI, $222 \mathrm{HI}, 223 \mathrm{HI}, 228 \mathrm{HI}$; TRN3IIHI

Group B (Society)
ANT 204YI; CSC 300 HI ; ECO $3 \mathrm{I} 3 \mathrm{HI}, 332 \mathrm{HI}, 336 \mathrm{YI}, 340 \mathrm{HI}$;
ENV 447HI, GGR $233 \mathrm{YI}, 33 \mathrm{IHI}, 393 \mathrm{HI}$; HIS $332 \mathrm{HI}, 355 \mathrm{HI}$; HPS 324 HI ; JGE 22 IYI ; PHL $265 \mathrm{HI}, 365 \mathrm{HI} ;$ POL $200 \mathrm{Y} \mathrm{I}, 2 \mathrm{I} 4 \mathrm{Y}$ I, $320 \mathrm{YI}, 404 \mathrm{HI}, 405 \mathrm{YI}, 4 \mathrm{I} 2 \mathrm{HI}, 432 \mathrm{HI}$; PSY $3 \mathrm{IIHI}, 32 \mathrm{IHI}$; SOC
$203 \mathrm{YI}, 2 \mathrm{I} 2 \mathrm{YI}, 2 \mathrm{I} 5 \mathrm{YI}, 30 \mathrm{YI}, 306 \mathrm{YI}$;WDW 200YI, 300 HI , $320 \mathrm{HI}, 335 \mathrm{HI}, 340 \mathrm{HI}, 380 \mathrm{HI}, 385 \mathrm{HI} ; W \mathrm{GS} 373 \mathrm{HI} ; \mathrm{ZOO}$ 200YI

Group C (Law)
CLA 336 HI ; ECO 320HI; ENV 422HI; NMC 484HI; PHL $370 \mathrm{HI}, 484 \mathrm{HI}$; POL 3I9YI, 332 YI , 337 YI , 340 YI ; SMC 304 HI , $36 \mathrm{IHI} ;$ SOC $213 \mathrm{YI} ; T R N 305 \mathrm{YI}, 425 \mathrm{YI} ; W D W 220 \mathrm{YI}, 365 \mathrm{HI}$, $420 \mathrm{HI} ; W G S 365 \mathrm{HI}$

## Group D (Further Courses)

RLG $309 \mathrm{YI} ; T R N 200 \mathrm{YI}, 300 \mathrm{HI}, 30 \mathrm{Y} \mathrm{I}, 302 \mathrm{YI}, 400 \mathrm{HI}, 404 \mathrm{YI}$, 405YI, 406HI/407YI
N.B. The above WDW courses are only available to students enrolled in the double major program Ethics, Society, and Law/ Criminology

## Immunology Studies:

Consult Prof. J.C. Zúñiga-Pflücker (416-978-0926)
For more information please see the entry under Life Sciences - Immunology

## Independent Studies

Consult Professor C. Kanaganayakam, Room 305, Larkin Building, Trinity College (4I6-978-8250).
The College's Independent Studies Program affords students the opportunity of investigating in depth topics of their own choice that are not directly part of the present curriculum. These topics normally involve interdisciplinary study, though under some circumstances they may require concentrated work in a single discipline. The scope of acceptable topics embraces the natural and social sciences as well as the humanities. Participation in the program is restricted to students who have completed at least ten courses. The maximum number of independent studies half courses for which a student may receive credit is one, and the maximum number of independent studies full course equivalents for which a student may receive credit is two. Normally the work done is to be the equivalent of two full courses. Permission to register in an independent studies half course, or in an independent studies full course, will normally be granted only to students with a cumulative GPA of at least 3.50. Permission to undertake an independent studies project for the equivalent of two full courses will normally be granted only to students with a cumulative GPA of at least 3.70.
All proposals are subject to the approval of the Coordinator.
Students must submit to the Coordinator before the beginning of the academic year a copy of their academic transcript and an outline of their topic (signed by the supervisor) and a suggested bibliography. For evaluation of the work done in the program a short thesis or equivalent is required, prepared and
submitted by the last day of classes in the fall or winter session as appropriate. The supervisor and a second reader (nominated by the supervisor and approved by the Coordinator before the end of September) are responsible for the evaluation. The Coordinator will require regular progress reports throughout the year.
Either the supervisor or the second reader must be a tenured University of Toronto faculty member. A supervisor who is not a tenured University of Toronto faculty member will normally be required to be a full-time faculty member of the University.
Students enrolling for the first time register for one or more of TRN $300 \mathrm{HI}, 30 \mathrm{Y}$ Y, 302 YI , or for one or more of TRN 400 HI , 404 YI , and 405 YI , as appropriate. Those enrolling for a second time register in one or more of TRN $400 \mathrm{HI}, 404 \mathrm{YI}$, and 405 YI , as appropriate.

## International Relations (Arts program)

Consult the Office of the International Relations Program, Room 3ION, Munk Centre for International Studies, 416-9468950.

Enrolment in the Specialist Program is limited to students with a CGPA of 3.00 , and a combined average of at least $67 \%$ in required first-year courses. A personal interview completes admission to the program.

## Specialist program:

(13 full courses or their equivalent, including at least two 400series courses)
First Year:
ECO I00YI/I05YI; HIS I03YI or TRN I50YI/I5IYI or two of VIC $18 \mathrm{IHI}, 183 \mathrm{HI}, 184 \mathrm{HI}, 185 \mathrm{HI}$; one introductory modern language course or MATI $33 \mathrm{YI} / \mathrm{I} 37 \mathrm{Y}$ I
NOTE: Students who intend to apply for the Specialist program are strongly encouraged to take ECO I00YI; POL I08YI is optional, and can replace one of the POL options under 2nd, 3rd or 4th years below.
Second and Third Years:
I. POL 208YI (must be taken in Second Year)
2. ECO $230 \mathrm{YI} / 328 \mathrm{YI}, 342 \mathrm{YI}$; HIS 3IIYI, $344 \mathrm{YI} ; \mathrm{POL}$ $3 I O Y I / 3 I 2 Y I / 326 Y I / 340 Y I$
Second, Third or Fourth Year:
Normally two full course equivalents from:ANT 452 HI ; ECO 200YI, 202YI, 230YI/328YI, 303YI, 324YI; EUR 200YI; GGR 439 HI ; HIS $232 \mathrm{YI}, 24 \mathrm{IHI}, 242 \mathrm{HI}, 250 \mathrm{YI}, 25 \mathrm{IYI}$, $27 \mathrm{YI}, 304 \mathrm{HI}, 327 \mathrm{HI}, 329 \mathrm{HI}, 334 \mathrm{YI}, 338 \mathrm{HI}, 343 \mathrm{YI}$, 347HI, $376 \mathrm{HI}, 377 \mathrm{YI}$; IAS 200YI; JMC 30IYI; NMC $358 \mathrm{HI}, 378 \mathrm{HI} ; \mathrm{POL}$ I08YI, $20 \mathrm{IYI}, 3 \mathrm{IOYI}, 3 \mathrm{I} 2 \mathrm{YI}, 3 \mathrm{I} 8 \mathrm{HI}$, $323 \mathrm{YI}, 324 \mathrm{YI}, 326 \mathrm{YI}, 335 \mathrm{HI}, 340 \mathrm{YI}, 34 \mathrm{IHI}, 342 \mathrm{HI}$, $343 \mathrm{YI}, 346 \mathrm{HI}, 370 \mathrm{YI}, 4 \mathrm{IOHI}, 467 \mathrm{HI}$

## Fourth Year:

Two full course equivalents from the following seminars: ECO $4 \mathrm{I} 9 \mathrm{HI}, 429 \mathrm{YI}, 459 \mathrm{HI}$; HIS $40 \mathrm{IYI}, 405 \mathrm{YI}, 436 \mathrm{HI}, 445 \mathrm{HI}$, $45 \mathrm{IHI}, 453 \mathrm{HI}, 455 \mathrm{HI}, 457 \mathrm{HI}, 458 \mathrm{YI}, 47 \mathrm{IHI}, 473 \mathrm{YI}$, $479 \mathrm{HI}, 488 \mathrm{HI}, 492 \mathrm{HI}, 497 \mathrm{YI}, 498 \mathrm{HI} ; \mathrm{JHP} 400 \mathrm{YI} ; J U P$ $460 \mathrm{HI} ;$ JUP 460 YI ; NMC $474 \mathrm{HI}, 476 \mathrm{HI}$; POL 40 IHI , $4 \mathrm{IOHI}, 4 \mathrm{I} 2 \mathrm{YI}, 4 \mathrm{I} 4 \mathrm{HI}, 4 \mathrm{I} 5 \mathrm{HI}, 4 \mathrm{I} 6 \mathrm{YI}, 4 \mathrm{I} 7 \mathrm{YI}, 420 \mathrm{YI}, 435 \mathrm{HI}$, $440 \mathrm{YI}, 44 \mathrm{IHI}, 442 \mathrm{HI}, 445 \mathrm{YI}, 452 \mathrm{YI}, 453 \mathrm{YI}, 458 \mathrm{HI}, 459 \mathrm{YI}$, $464 \mathrm{HI}, 465 \mathrm{HI}, 466 \mathrm{HI}, 467 \mathrm{HI}, 468 \mathrm{HI}, 469 \mathrm{HI}, 477 \mathrm{HI}$, $486 \mathrm{HI}, 487 \mathrm{HI}, 495 \mathrm{YI}, 496 \mathrm{HI} ; T R N$ 4IOYI, $4 \mathrm{II} \mathrm{YI}, 4 \mathrm{I} 9 \mathrm{YI}$, 42IYI

## Notes:

I. Language skills are vital for the study of international relations.
2. Nine full courses in the Program should be completed among the student's first 15 courses.
3. Students may change from Major to Specialist Programs only if they meet current Specialist requirements and if places are available.

## Major program:

(7 full courses or their equivalent)
Enrolment in the Major Program is limited to students with a CGPA of 2.70 , and a combined average of at least $67 \%$ in required first-year courses. A personal interview completes admission to the program.
First Year: ECO I00YI/I05YI, HIS I03YI or TRN I50YI/I5IYI or two of VIC $18 \mathrm{IHI}, 183 \mathrm{HI}, 184 \mathrm{HI}, 185 \mathrm{HI}$
Higher Years:
I. POL 208YI (must be taken in Second Year)
2. ECO $230 \mathrm{YI} / 342 \mathrm{YI}, \mathrm{HIS} 31 \mathrm{IYI}, 344 \mathrm{YI}, \mathrm{POL} 310 \mathrm{YI} / 3 \mathrm{I} 2 \mathrm{YI} /$ 326YI/340YI

## International Relations Program/Peace and Conflict Studies Program (Arts program)

Consult the Office of the International Relations Program, Room 3ION, Munk Centre for International Studies, 946-8950 or the Office of the Peace and Conflict Studies Program, Room HII, University College, 4I6-978-2485.

Admission to the Joint Specialist program requires students to complete specified first year courses plus the approval of the Directors of the International Relations Program and the Peace and Conflict Studies program through an interview. A limited number of students are accepted each year. Enrolment in the Joint Specialist Program is limited to students with a First-year CGPA of 3.00.

## Joint Specialist program:

(13 full courses or their equivalent, including at least two 400series courses)
First Year:
ECO I00YI/I05YI; HIS I03YI; PSYIOOHI + PSY220HI/

## SOCIOIYI

Second Year:
ECO 230YI; POL 208YI; UNI 260YI
Third Year:
HIS 3IIYI/344YI; UNI 360Y
Fourth Year:
JUP 460YI plus
One full course equivalent from the following: HIS 458YI, $473 \mathrm{YI}, 479 \mathrm{HI}, 482 \mathrm{HI}, 488 \mathrm{HI}, 497 \mathrm{YI}, 498 \mathrm{HI}$;TRN 42 I Y
Note: In addition, students must meet the Peace and Conflict Studies Program requirement of completing a cluster of 3 full course equivalents to be chosen in consultation with the Peace and Conflict Studies Program Director.

## Trinity College Courses

(Trinity One; Ethics, Society, \& Law; Independent Studies; International Relations; Other)

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), all TRN courses are classified as HUMANITIES courses except TRN I50YI, I5 IYI, 305 YI and 425 YI , which are SOCIAL SCIENCE courses, and TRN 4I9YI, which is both a HUMANITIES and a SOCIAL SCIENCE course.

## Trinity One

Students participating in Vic One are excluded from Trinity One.
TRNI50YI National versus International 52S
This seminar examines the rise of nationalisms and nation states since the 16th century and the ways these intersect or compete with international movements, ideas and institutions. Topics may include the Enlightenment, the French Revolution, the birth of Germany, peace movements, the League of Nations, and humanitarian relief. Open only to students admitted to Trinity One.
Co-requisites:TRNI5IYI \& a first-year course in History or Political Science or Economics or Sociology or a course with permission of the Coordinator.
This is a Social Science course.

## TRNISIYI Global Governance

This seminar course provides an orientation to the study of contemporary world order. Topics may include important legacies of the world wars of the 20th century, theories of conflict and cooperation, and new forms of transnational collaboration. Open only to students admitted to Trinity One. Co-requisites:TRNI50YI \& a first-year course in History or Political Science or Economics or Sociology or a course with permission of the Coordinator.
This is a Social Science course.

## TRNI70YI Ethics and the Creative Imagination

A seminar course that explores ethical issues through the study of works of the creative imagination that pose or provoke questions of right and wrong, good and evil, justice and injustice. The selected works will be drawn from such fields as literature, film, and the visual and performing arts. Open only to students admitted to Trinity One.
Co-requisites:TRNI7IYI \& a first-year course in English or Philosophy or Political Science or a course with permission of the Coordinator.
TRNITIYI Ethics and the Public Sphere 52S
A seminar course that explores ethical issues arising in such public domains as international relations, law, science, business, the arts, civil society, public life, the mass media, popular culture. Issues may include war crimes, human rights, assisted suicide, genetic engineering, corporate responsibility, private vice and public virtue, "the tragedy of the commons". Open only to students admitted to Trinity One.
Co-requisites:TRNI70YI \& a first-year course in English or Philosophy or Political Science or a course with permission of the Coordinator.

## Ethics, Society, and Law Courses

TRN 303HI Ethics and Society
26L
An exploration of the ethical dimensions of selected
contemporary social issues. Students in the major program in Ethics. Society, and Law have enrolment priority.

## Prerequisite: PHL 27IHI

## TRN305YI Basic Principles of Law 52L

The nature and justifications of legal rules as preparation for the study of basic principles of law governing the relations between individual citizens, and the relations between individual citizens and the state. Contract, torts, criminal and administrative law. (Enrolment limited:TRN305YI is not open to Commerce students. Commerce students should enrol in MGT393HI/394HI in which they have priority.)
Prerequisite: A student must be in third or fourth year.

## This is a Social Science course

## TRN3IIHI Ethics and Human Liberation 26S

The ethical implications of critical social theory, in particular that of the 'Frankfurt School'. The possibilities for justice and freedom in contemporary capitalism; the potential for social movements, such as the women's movement, for emancipatory transformation.
Recommended preparation: A half-course in ethics/women's studies/PHL267HI

## TRN406HI/ Community Research Partnerships <br> 407YI in Ethics

Students undertake research projects designed to meet the
knowledge needs of ethics-oriented organizations in the broader community.
Prerequisite: Students must be in the final year of registration in the Major Program in Ethics, Society, and Law and will normally have a CGPA of at least 3.20. Enrolment is by application. See the Registration Handbook and Timetable for enrolment procedures.
TRN4I2HI Seminar in Ethics, Society, TBA

## and Law

(formerly TRN3I2HI)
Prerequisite: Students must be in their final year of registration in the Major Program: Ethics, Society And Law. See the Registration Handbook and Timetable for enrolment procedures.
Recommended preparation:TRN305YI/WDW220YI/ equivalent background knowledge
Exclusion:TRN3I2HI
TRN425YI Law Workshops Course TBA
Students attend workshops in the Faculty of Law, meet for related discussion and complete related assignments. Enrolment is restricted to qualified fourth-year students registered in the Major Program Ethics, Society, and Law.
This is a Social Science course.

## Independent Studies Courses

TRN299YI Research Opportunity Program
Credit course for supervised participation in faculty research project. See page 47 for details.

## Trinity College

| TRN300HI | Trinity Independent Studies | TBA |
| :--- | :--- | :--- |
| TRN30IYI | Trinity Independent Studies | TBA |
| TRN302YI | Trinity Independent Studies | TBA |
| TRN400H I | Trinity Independent Studies | TBA |
| TRN404YI | Trinity Independent Studies | TBA |
| TRN405YI | Trinity Independent Studies | TBA |

## International Relations Courses

(See the International Relations Program Office for details)

## TRN4IOYI <br> Selected Topics in International Studies

Prerequisite: Enrolment in the International Relations specialist program or in a History or Political Science specialist program
Exlcusion:TRN4IOHI

## TRN4IIYI Selected Topics in TBA

 International StudiesPrerequisite: Enrolment in the International Relations program or in a History major or specialist program, or permission of instructor
TRN4I9YI Comparative American, British and 52 S Canadian Foreign Policy
The origins and evolution of American, British and Canadian foreign policy from the late 18th century to the present. Policies are compared in order to understand the development of these countries as nations and actors in the international community. Prerequisite: Students must have a background in one of Canadian, British or American history.
This is a Humanities and a Social Science course.

| TRN42IYI | The Practice and Institutions of <br> Diplomacy <br> (formerly JHP420YI) |
| :--- | :--- | (formerly JHP420YI)

Evaluation of the nature of foreign policy negotiation and decision-making from the perspective of the practitioner. Prerequisite: ECO342YI/HIS3IIYI/POL3I2YI

## Other Trinity College Courses

TRNI90YI Critical Reading and Critical $52 S$ Writing
This course introduces students to a number of critical approaches and develops the student's own responses to texts through an understanding of critical vocabulary and the art of close analytical reading. Students also learn how to make their own critical analysis more effective through oral presentations and written work.

## TRN200YI Modes of Reasoning 26L, 26S

(formerly TRN200HI)

First term: students are taught how to recognize, analyze, evaluate, and construct arguments in ordinary English prose. Second term: one or more discipline-related modes of reasoning (e.g., scientific reasoning, ethical reasoning, legal reasoning) studied with reference to a selection of contemporary social issues.
Exclusion: PHL 247HI/PHI 247HI/TRN200HI

TRN320YI Freud and Freud's Critics
An examination of psychoanalytic themes: drives, instincts, sexuality, femininity, individual and society, freedom and unfreedom, reason and irrationality; major Freudian concepts and critiques by Winnicott, Benjamin, Irigaray, Reich, Flax, Marcuse; the relevance of psychoanalytic theory to issues of personal freedom and social transformation.

## Ukrainian: see Slavic Lanaguges and

 Literatures
## University College

## Faculty

## Professor

P. Kleber, MA, Ph D (Drama)

## Associate Professor

T. Homer-Dixon, BA, Ph D (Peace \& Conflict Studies)
E. Gilbert, MA, Ph D (Canadian Studies)

## Assistant Professors

A. Ackerman, MA, Ph D (Drama)
A. Budde, MA, Ph D (Drama)
A. Egoyan, BA (Drama)
A. Janson, MA (Drama)
N. Kokaz, BA, Ph D (Peace \& Conflict Studies)
J. Luo, MA, Ph D (Cognitive Science)
D. McGregor, MA, Ph D (Aboriginal Studies)
J. Saul, MA, Ph D (Canadian Studies)
C. Wesley-Esquimaux, MA, Ph D (Aboriginal Studies)

## Senior Lecturers

S. Bush (Drama)
K. Gass, BA (Drama)
A. McKay (Aboriginal Studies)
J. Plotnick, MA, M Sc (Writing Workshop)
R. Salutin, MA (Canadian Studies)

## Lecturers

S. Lyons, BA (Drama)
J.Vervaeke, MA, Ph D (Cognitive Science)

University College offers a number of programs and courses outside the areas traditionally covered by departments. These include programs and courses in Aboriginal Studies, Canadian Studies, Cognitive Science, Cognitive Science and Artificial Intelligence, Drama, Health Studies, Peace and Conflict Studies, and Sexual Diversity Studies, in addition to I99YI Seminars, and introductory courses for non-specialists in mathematics and physics. The overall aims of the College Programs are to foster interdisciplinary work in significant areas of study and to encourage intellectual breadth. Many program courses are open to students not enrolled in the programs themselves.

The Aboriginal Studies Program (Major, Minor)
is described elsewhere in this Calendar, under Aboriginal Studies.

The Canadian Studies Program (Specialist, Major, Minor)
offers opportunities to study Canadian culture and society in an interdisciplinary manner and to explore cultural, social, economical and political developments in this diverse country. Students in the Specialist and Major programs select courses from the Humanities or Social Sciences. They are encouraged to consider additional courses in Aboriginal Studies in completing the requirements of the Program.

## The Cognitive Science Program (Specialist, Major)

 is an interdisciplinary exploration of the nature of cognition, drawing on the perspectives of Philosophy, Psychology, and Linguistics.
## The Cognitive Science and Artificial Intelligence Program (Specialist)

is an interdisciplinary exploration of the nature of cognition, drawing mainly on the perspectives of Computer Science and two of Linguistics, Philosophy, and Psychology.

## The Drama Program (Specialist, Major, Minor)

is described elsewhere in this Calendar, under Drama.
The Health Studies Program (Specialist, Major)
focuses the many areas of study that surround, interact with and support bio-medical research and clinical activity in regard to health, including health policy, practices, research methods, and sociocultural expression. The Major serves as a general introduction; the Specialist provides a more intense research focus with more methodological emphasis.

The Peace and Conflict Studies Program (Specialist, Major)
provides undergraduates with an interdisciplinary education in the causes of human conflict and strategies for its resolution; topics of study include war, revolution, rebellion, ethnic strife, international law, and negotiation theory.

The Sexual Diversity Studies Program (Major, Minor)
allows students to focus on questions of sexual identity, difference, and dissidence across disciplinary lines and cultural frameworks.

UNI, DRM and ABS courses are staffed by a combination of specific program staff members and members of various University departments, and are open to all students of the University. Further information on University College programs is available from the College.

Enquiries: Programs Office, University College, Room 25I (416-978-6276)

## University College Programs

## Aboriginal Studies - See Aboriginal Studies

## Canadian Studies (Arts program)

Consult Programs Office, Room EI03, University College, 416-978-8I53 or visit the Canadian Studies website at www. utoronto.ca/canstudies/.
Completion of four courses is required for enrolment in the Canadian Studies Specialist or Major program; no minimum GPA required.

## Specialist program:

(I2 full courses or their equivalent including at least three $300+$ series full-year equivalent courses and at least one 400series full-year equivalent course)
First Year:
One full course from the following list:ANT IOOYI;ECO
I00YI/I05YI; ENG I40YI; FRE I40YI; FSL I2 IYI/I6IYI/
I63HI/I8IYI; GGR IO7YI/I24YI;POL IO3YI;SOC IOIYI
First or Second Year:
I. UNI 220YI; HIS 263YI
2. One full course equivalent from FSL $16 I \mathrm{YI} / I 63 \mathrm{HI} / I 8 \mathrm{IYI} /$ I83HI/26IYI/262YI/264YI/28IYI/ABS2IOYI/3IOYI

## University College

## Higher Years:

l. UNI 320 Y I, 420YI
2. Six full course equivalents from one or both of the two perspectives listed below. Suitable courses not on the list may be considered. Course selections require approval from the Canadian Studies Programs Office.

## Major program:

(8 full courses or their equivalent including at least two $300+$ series courses)

First Year:
One full course from the following list:ANT IOOYI;ECO I00YI/I05YI; ENG I40YI; FRE I40YI; FSL I2IYI/I6IYI/ I63HI/I8IYI; GGR I07YI/I24YI;POL I03YI;SOC IOIYI
First or Second Year:
UNI 220YI; HIS 263YI
Higher Years:
I. UNI 320YI
2. Four full course equivalents from either one of the two perspectives listed below, one of which must be a $300+$ series course. Suitable courses not on the list may be considered. Course selections require approval from the Canadian Studies Programs Office.

## Minor program:

(4 full courses)
I. One full course from the following list:ANT 100 YI ; ECO I00YI/I05YI; ENG I40YI; FRE I40YI; FSL I2IYI/I6IYI/ I63HI/I8IYI; GGR I07YI/I24YI;POL I03YI; SOC IOIYI
2. UNI 220YI; HIS 263YI
3. UNI 320YI

## Humanities Perspectives on Canada

Humanities courses with a focus on Canada offered by University College and other departments and interdisciplinary programs including Aboriginal Studies, Cinema Studies, Drama, English, Fine Art, French, History, Italian Studies, Religious Studies and Slavic Studies. For a list of courses fitting under this rubric, please consult the Canadian Studies website at www. utoronto.ca/canstudies/.

## Social Science Perspectives on Canada

Social Science courses with a focus on Canada offered by University College and other departments and interdisciplinary programs including Aboriginal Studies, Anthropology, Economics, Geography, Political Science, Sociology and Urban Studies. For a list of courses fitting under this rubric, please consult the Canadian Studies website at www.utoronto.ca/canstudies/.

## Cognitive Science (Arts program)

Consult the Programs Office, Room AI02, University College, 4I6-946-339I or visit the Cognitive Science website at www. cogsci.utoronto.ca.

Admission in the Specialist program requires (I) 70\% or better in PHL2OIHI or $63 \%$ or better in one of the following: UNI250YI, ANTI00YI, LINIOOYI, PHLI00YI, or PSYIOOHI; and (2) a GPA of 2.0. Completion of four full course equivalents is required for admission in the Major program; no minimum GPA required.

Students enroled in the Specialist and Major program who have taken UNI250YI are permitted to take the PSY courses listed in the program without taking PSYIOOHI. Students should explore combining this program with a Major in Anthropology, Computer Science, Linguistics, Philosophy, or Psychology.

## Specialist program:

(I2 full courses or their equivalent, including at least one 400series full course equivalent)

First Year:
CSC $107 \mathrm{HI} / 108 \mathrm{HI} / 150 \mathrm{HI}$; UNI 250 YI ; LIN 100 Y ; PHL 240 HI Second Year:
LIN $228 \mathrm{HI} / 232 \mathrm{HI} / \mathrm{JAL} 253 \mathrm{HI}$; HPS 250 HI ; PHL 245 HI ; PSY
20IHI/STA $220 \mathrm{HI} / 250 \mathrm{HI}$; PSY 270 HI, PSY $210 \mathrm{HI} / 280 \mathrm{HI} /$ 290 HI
Second and Third Years:
UNI $30 \mathrm{IHI}, 302 \mathrm{HI}$
Third and Fourth Years:
Cognitive Science: UNI40IHI; UNI 402
Psychology: PSY 370 HI ; two of PSY $3 \mathrm{I} 2 \mathrm{HI} / 3 \mathrm{I} 6 \mathrm{HI} / 37 \mathrm{IHI} /$ $372 \mathrm{HI} / 380 \mathrm{HI} / 393 \mathrm{HI}$
Linguistics: one of JLP $3 \mathrm{I} 5 \mathrm{HI} / 374 \mathrm{HI} / 47 \mathrm{IHI} / \mathrm{LIN}$
$323 \mathrm{HI} / 33 \mathrm{IHI} / 34 \mathrm{IHI} / 372 \mathrm{HI} / 423 \mathrm{HI}$
Philosophy: PHL 342HI; PHL 340; one of PHL $325 \mathrm{HI} / 326 \mathrm{HI} / / 344 \mathrm{HI} / 345 \mathrm{HI} / 347 \mathrm{HI} / 349 \mathrm{HI} / 35 \mathrm{IHI} / 479 \mathrm{HI} /$ $480 \mathrm{HI} / 48 \mathrm{IHI}$
0.5 additional full course equivalents from among the above listed courses not yet taken, or from the following list: UNI $402 \mathrm{HI}, 403 \mathrm{HI}$; PSY $379 \mathrm{HI}, 389 \mathrm{HI}, 392 \mathrm{HI}, 396 \mathrm{HI}$, PSY4IOHI, $472 \mathrm{HI}, 473 \mathrm{HI}$. (With the permission of the Program Director, the following may also be counted: LIN495YI-499HI; PHL490YI, 496HI-499HI; PSY303HI, $304 \mathrm{HI}, 40 \mathrm{IHI}-404 \mathrm{HI}, 470 \mathrm{HI}, 47 \mathrm{IHI}, 480 \mathrm{HI}, 490 \mathrm{HI}$.
NOTE: Some courses listed in the paragraph above have prerequisites or recommended preparation not included in this program. Students interested in speech recognition should take LIN323HI and LIN423HI; in cognitive development PSY2IOHI, 3I2HI, 4 IOHI , and JLP3I5HI; in the brain PHL340HI, PSY290HI, $39 \mathrm{IHI}, 393 \mathrm{HI}$, and 490 HI ; in perception PSY $280 \mathrm{HI}, 380 \mathrm{HI}$, and 480 HI ; in language and thought PHL $35 \mathrm{IHI}, 45 \mathrm{IHI}$, and LIN 372 HI ; in psycholinguistics JLP 315 HI and 47 IHI ; in thinking and reasoning PHL 247 HI, PSY $37 \mathrm{HI}, 472 \mathrm{HI}$, and 473 HI .

## Major program:

(7 full courses or their equivalent)
First Year:
UNI 250YI; LIN I00YI; PHL 245HI
Second Year:
PSY 20IHI/STA $220 \mathrm{HI} / 250 \mathrm{HI}$; PSY 270 HI ; PSY $210 \mathrm{HI} / 280 \mathrm{HI} /$ 290HI
Second and Higher Years:
Cognitive Science: UNI 30 IHI (optional), $302 \mathrm{HI}, \mathrm{HPS}$ 250 HI
Psychology: PSY $3 \mathrm{I} 2 \mathrm{HI} / 3 \mathrm{I} 6 \mathrm{HI} / 370 \mathrm{HI} / 37 \mathrm{IHI} / 372 \mathrm{HI} /$ $380 \mathrm{HI} / 393 \mathrm{HI} / 4 \mathrm{IOHI}$
Linguistics: JLP $3 \mathrm{I} 5 \mathrm{HI} / 374 \mathrm{HI} / \mathrm{LIN} 228 \mathrm{HI} / 372 \mathrm{HI}$
Philosophy: PHL $325 \mathrm{HI} / 326 \mathrm{HI} / 340 \mathrm{HI} / 342 \mathrm{HI} / 344 \mathrm{HI} /$
$345 \mathrm{HI} / 347 \mathrm{HI} / 349 \mathrm{HI} / 35 \mathrm{IHI} / 479 \mathrm{HI} / 480 \mathrm{HI} / 48 \mathrm{IHI}$
Third or Fourth Year:
UNI 402 HI (optional), 403 HI (optional), 450 HI

## Cognitive Science and Artificial Intelligence (Science program)

Consult the Programs Office, Room AI02, University College, 4I6-946-339I or visit the Cognitive Science website at www. cogsci.utoronto.ca.

Admission in this program requires (I) 63\% or better in $\mathrm{CSCl} 48 \mathrm{HI} / 150 \mathrm{HI}$ or $63 \%$ or better in UNI 250 YI or

PSYIOOHI; and (2) a GPA of 2.0. Students enroled in this program who have taken UNI250YI are permitted to take the PSY courses listed in the program without taking PSYIOOHI. Students should explore combining this program with a Major in Anthropology, Computer Science, Linguistics, Philosophy, or Psychology.

## Specialist program:

(13 full courses or their equivalent, including at least one 400series full course equivalent)
First Year:
CSC $148 \mathrm{HI} / \mathrm{I} 50 \mathrm{HI}, 165 \mathrm{HI} / 240 \mathrm{HI}$; UNI 250YI; MAT
I35YI/I36YI/I37YI/I57YI
Second Year:
CSC207HI, $236 \mathrm{HI} / 240 \mathrm{HI}$; HPS 250 HI ; PSY 270 HI ;

* CSC240HI is an accelerated alternative to CSCl 65 HI
and CSC236HI, intended for students with a strong mathematical background. Consult the Computer Science undergraduate office for further advice.
Second and Higher Years:
STA $247 \mathrm{HI} / 255 \mathrm{HI} / 257 \mathrm{HI}$
UNI $30 \mathrm{IHI} / C S C ~ 32 \mathrm{IHI}$, UNI 302 HI ; CSC 324 HI ; CSC 384 HI ; PSY 37 IHI
Two of the following course sequences:
Psychology Stream: PSY $201 \mathrm{HI} / 210 \mathrm{HI} / 280 \mathrm{HI} / 290 \mathrm{HI}, 370 \mathrm{HI} /$ STA $220 \mathrm{HI} / 250 \mathrm{HI} / 26 \mathrm{IHI}$, one of PSY $3 \mathrm{I} 2 \mathrm{HI} / 3 \mathrm{I} 6 \mathrm{HI} /$ $372 \mathrm{HI} / 380 \mathrm{HI} / 39 \mathrm{IHI} / 392 \mathrm{HI} / 393 \mathrm{HI} / 470 \mathrm{HI} / 47 \mathrm{IHI} / 472 \mathrm{HI} /$ 473 HI
Linguistics Stream: LIN I00YI; one of JLP $315 \mathrm{HI} / 374 \mathrm{HI} / \mathrm{LIN}$ $323 \mathrm{HI} / 33 \mathrm{IHI} / 34 \mathrm{IHI} / 372 \mathrm{HI} / 423 \mathrm{HI}$
Philosophy Stream: PHL $245 \mathrm{HI}, 340 \mathrm{HI} / 342 \mathrm{HI}$
One addition half course from among the above listed course not yet taken or CSC $318 \mathrm{HI}, 320 \mathrm{HI}, 330 \mathrm{HI}$
I, CSC $32 \mathrm{IHI}, 324 \mathrm{HI}, 340 \mathrm{HI}, 363 / 365 \mathrm{HI}, 373 / 375 \mathrm{HI}, 40 \mathrm{I}$ $\mathrm{HI}, 420 \mathrm{HI}, 428 \mathrm{HI}, 448 \mathrm{HI}, 465 \mathrm{HI}, 485 \mathrm{HI}, 486 \mathrm{HI}, 487 \mathrm{HI}$; JLP47IHI;PSSSY379HI, $389 \mathrm{Hi}, 392 \mathrm{HI}, 396 \mathrm{HI}, 4 \mathrm{IOHI}, 472 \mathrm{HI}$, 473 HI .
Third or Fourth Year:
UNI 450HI: UNI 402: UNI 403
NOTE: Some courses listed in the paragraph above have prerequisites or recommended preparation not included in this program. Students interested in speech recognition should take LIN228HI, LIN323HI, and LIN423HI; in cognitive development PSY3I2HI, PSY4IOHI and JLP3I5HI; in the brain PHL340HI, PSY290HI, PSY39IHI, PSY 393 HI , and PSY490HI; in perception PSY280HI, PSY $380 \mathrm{HI}, \mathrm{PSY} 480 \mathrm{HI}$ and CSC 487 HI ; in language and thought PHL $350 \mathrm{HI}, 450 \mathrm{HI}$; LIN 372 HI , and CSC 485 HI ; in psycholinguistics JLP3I5HI and JLP47IHI; in thinking and reasoning PHL247HI, PSY47IHI, PSY472HI, PSY473HI, and CSC486HI.


## Drama: see Drama

Health Studies (Arts program)
Consult the Program Office at University College, Room AI02,
416-946-3391.

## Specialist Program:

10 full courses or their equivalent, with at least three full courses from Group A. Only second, third and fourth year courses count toward the Program requirement.

Enrolment in the Specialist program is limited to 20 students
per year. Students enrol at the end of Second Year, after entering the Major program at the end of First Year. Entry Requirements: I) students must have completed 8.5 courses and be enrolled in the Health Studies Major program; 2) UNI200YI (minimum grade 70\%), 3) competitive CGPA.

First Year:
No specific courses required. (Students are advised to take introductory courses that will serve as prerequisites for optional courses of interest to them later in the program, e.g. ANTI00YI, POL I02YI/POLI03YI, PSYIOOHI, SOCIOIYI.) A course in biology or physiology is also recommended.
Second Year:
UNI $200 \mathrm{HI}, 210 \mathrm{HI}$, plus two full courses (or equivalent) chosen from different groupings (see below)
Third Year:
UNI300HI, UNI3IOHI, plus two full courses (or equivalent) chosen from different groupings (see below)
Fourth Year:
UNI400YI; plus three full courses (or equivalent) chosen from different groupings (see below)

## Major Program:

7.0 full courses or the equivalent, including at least two designated 300 -series courses, with at least 3.5 full courses from Group A. Only second, third and fourth year courses count toward the Program requirement.
Enrolment in the Major program is limited. Entry Requirements: I) four full courses or their equivalent; 2) competitive CGPA.

First Year:
No specific courses required. (Students are advised to take introductory courses that will serve as prerequisites for optional courses of interest to them later in the program, e.g. ANTIOOYI, POL I02YI/POLIO3YI, PSYIOOHI, SOCIOIYI.) A course in biology or physiology is also recommended.
Second Year:
UNI $200 \mathrm{HI}, 210 \mathrm{HI}$; plus two full courses from different groupings
Third and Fourth Years:
UNI 300 HI, UNI3IOHI plus three full courses from different groupings, including UNI400YI if desired.

## GROUP A - UNI COURSES

UNI370HI Psychology of Physical Activity and Sport
UNI37IHI Physical Activity and Social Inequality
UNI373HI Population Health
UNI409HI Special Topics in Health Research
UNI4IOHI Communities and Community Health
UNI 440 HI Epidemiology**
UNI446HI Case Studies in Health Policy
UNI450HI Independent Research on Health Topics
UNI45IYI Independent Research on Health Topics
UNI462HI Health Care
UNI464HI International Health
UNI470HI Health Psychology
UNI47IHI Physical Activity, Health and the Media
UNI472HI Body, Health and Culture
UNI473HI Physical Activity in the Ancient and Early Modern World
UNI474HI Health Topics in Literature
UNI476HI Socio-history of Health Processes

## University College

| GROUP B - ETHICS |  |
| :---: | :---: |
| PHL28IYI | Bioethics |
| PHL381HI | Ethics and Medical Research |
| PHL382HI | Ethics: Death and Dying |
| PHL383HI | Ethics and Mental Health |
| PHL384HI | Ethics, Genetics and Reproduction |
| PHL273HI | Environmental Ethics |
| PHL373HI | Issues in Environmental Ethics |
| PHL240HI | Persons, Minds and Bodies |
| PHL243HI | Philosophy of Human Sexuality |
| PHL295HI | Business Ethics |
| GROUP C - PHYSICAL AND MENTAL HEALTH |  |
| NEW367HI | Women and Health |
| SOC243HI | Sociology of Health and IIIness |
| SOC246HI | The Sociology of Aging |
| ZOO200YI | Aspects of Human Biology * |
| JFP450HI | First Nations Issues in Health and Healing |
| HMB202HI | Introduction to Health and Disease |
| NFS284HI | Basic Human Nutrition |
| NFS490HI | Socio-cultural Aspects of Nutrition |
| PSY333HI | Health Psychology |
| PSY335HI | Environmental Psychology |
| PSY336HI | Positive Psychology |
| JZP326HI | Biological Rhythms |
| PSY323HI | Sex Roles and Behaviour |
| PSY324HI | Social Psychology of Interpersonal Relationships |
| SOC363HI | Sociology of Mental Health and Mental Disorders |
| GROUP D - POLICY |  |
| ABS350Y | Aboriginal Health Systems* |
| IDSB04H3 | International Health Policy Analysis (UTSC course) |
| ANT362YI | Anthropological Studies of Poverty, Social Inequality and the U.S. State * |
| HIS463HI | The History of Health Care in Canada, 1800 to the Present |
| POL347YI | Politics and Environment in the North and South * |
| POL350HI | Comparative Health Politics and Policy |
| SOC309YI | HIV and AIDS: Social Policies and Programs* |
| SOC244HI | Sociology of Health Care |
| SOC352HI | Introduction to Canadian Health Care Policy |
| SOC354HI | Emergent Issues in Health and Social Policies |
| GROUP E-ENVIRONMENTAL |  |
| INI34IHI | Environment and Human Health |
| RLG3IIHI | World Religions and Ecology |
| JAG32IHI | Aboriginal People and Environmental Issues in Canada |
| GGR330HI | Atmosphere and Human Health |
| GGR334HI | Water Resource Management |
| GLGI03HI | Geology in Public Issues |
| HPS328HI | Environment, Science and Crisis |
| ANT364YI | Environment \& Globalization* |
| BOT202YI | Plants and Society* |
| ENV200YI | Assessing Global Change: Science and the Environment * |
| ENV236YI | Human Interactions with the Environment * |
| GROUP F - SOCIAL/GLOBAL ISSUES |  |
| ANT348YI | Anthropology of Health * |
| ANTC6IH3 | Medical Anthropology: Illness and Healing in |
|  | Cultural Perspective (UTSC course) |

SOC364HI Urban Health
ANT364YI Environment \& Globalization *
ANT342HI Sexuality and Global Health
GLG205HI Confronting Global Change
NFS490HI Socio-Cultural Aspects of Nutrition
WDW378HI Employment Health
SOC327YI Families and Health*
Asterisked (*) courses will fulfill the requirement of either of two group areas (but not both), as follows:

ABS350YI Aboriginal Health Systems (Group D and F)
ANT348YI Anthropology of Health (Group C and F)
ANT362YI Anth Studies of Poverty, Social Inequality (etc) (Groups D and F)
ANT364YI Environment \& Globalization (Group E and F)
BOT202YI Plants and Society (Group E and F)
ENV200YI Assessing Global Change: Science and Environment (Group E and F)
ENV236YI Human Interactions with the Environment (Group E and F)
POL347YI Politics and Environment in the North and South (Group D and E)
SOC309YI HIV and AIDS: Social Policies and Programs (Group D and F)
SOC327YI Families and Health (Group C and F)
ZOO200YI Aspects of Human Biology (Group C and E)

## Peace and Conflict Studies (Arts program)

Consult Program Assistant, Room HII, University College, 416-978-2485.
Enrolment in the Specialist and Major programs is limited; selection is based on a personal interview and GPA. To apply, students must have completed ANY four full courses, or their equivalent. The Director approves each student's proposed program of study based on its relevance, coherence and focus.

## Specialist program:

(I2 full courses or their equivalent, including at least one 400series course)
I. HIS IO3YI/ECO I00YI/I05YI(PSY IOOHI + PSY 220H)/ SOC IOIYI; POL 208YI
2. UNI $260 \mathrm{YI}, 360 \mathrm{YI}$, JUP 460 YI
3. Three courses from one of Groups A, B, C, D, E or F (below); at least one course must be at the $300+$ series level
4. Three complementary courses with either a disciplinary, regional, or thematic focus relevant to Peace and Conflict Studies (on approval of the Director); at least one must be at the $300+$ level

Disciplinary focus:
3 courses from one of ANT, ECO, GGR and Environmental Studies (combined), HIS, HPS, PHL, POL, PSY, RLG, SOC. (Note: HIS is excluded for students who have taken 3 HIS courses in 3 . above; POL is excluded for students who have taken 3 POL courses in 3 . above.)
Regional Studies focus:
3 courses on, for example, Canada, Southern Africa, the Middle East, or Latin America.

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## Thematic focus:

3 courses on a topic such as negotiation and conflict resolution, diplomatic history, gender and conflict, morality of war, quantitative analysis, group-identity conflict, economic development and conflict, or environmental change and conflict.

## Group A

HIS IO3YI, I06YI, 202H, , 232YI, $24 \mathrm{IHI}, 242 \mathrm{HI}, 243 \mathrm{HI}, 244 \mathrm{HI}$, 250YI, 25IYI, 27IYI, 296Y, 303YI, 3IIYI, 3I7HI, 3I9HI, $325 \mathrm{HI}, 333 \mathrm{YI}, 334 \mathrm{YI}, 338 \mathrm{YI}, 343 \mathrm{YI}, 344 \mathrm{YI}, 35 \mathrm{IHI}, 355 \mathrm{YI}$, $356 \mathrm{HI}, 359 \mathrm{H}, 370 \mathrm{HI}, 372 \mathrm{HI}, 377 \mathrm{YI}, 379 \mathrm{HI}, 386 \mathrm{YI}, 390 \mathrm{YI}$, $396 \mathrm{HI}, 40 \mathrm{IYI}, 405 \mathrm{YI}, 407 \mathrm{HI}, 408 \mathrm{Y}, 4 \mathrm{I} 2 \mathrm{YI}, 4 \mathrm{I} 4 \mathrm{HI}, 4 \mathrm{I} 5 \mathrm{H}$, $42 \mathrm{IYI}, 424 \mathrm{YI}, 429 \mathrm{YI}, 436 \mathrm{YI}, 442 \mathrm{YI}, 445 \mathrm{HI}, 45 \mathrm{IHI}, 453 \mathrm{HI}$, $458 \mathrm{YI}, 46 \mathrm{IHI}, 473 \mathrm{HI}, 475 \mathrm{HI}, 480 \mathrm{HI}, 488 \mathrm{HI}, 49 \mathrm{YY}, 492 \mathrm{YI}$, JHP435Y, 440Y,TRN42IYI

## Group B

JHP 440YI, JPE 400YI, POL I08YI, 201 YI, , $242 \mathrm{YI}, 300 \mathrm{HI} / \mathrm{YI}$, $301 \mathrm{YI}, 304 \mathrm{HI}, 305 \mathrm{YI}, 310 \mathrm{YI}, 3 \mathrm{I} 2 \mathrm{YI}, 3 \mathrm{I} 3 \mathrm{YI}, 32 \mathrm{IHI}, 323 \mathrm{YI}$, $324 \mathrm{YI}, 326 \mathrm{YI}, 340 \mathrm{YI}, 342 \mathrm{HI}, 343 \mathrm{YI}, 345 \mathrm{HI}, 346 \mathrm{HI}, 347 \mathrm{YI}$, $354 \mathrm{HI}, 358 \mathrm{YI},, 364 \mathrm{HI}, 370 \mathrm{Y}, 405 \mathrm{YI}, 4 \mathrm{I} 2 \mathrm{YI}, 4 \mathrm{I} 6 \mathrm{YI}, 4 \mathrm{I} 7 \mathrm{YI}$, $4 \mathrm{I} 9 \mathrm{Y}, 422 \mathrm{YI}, 428 \mathrm{HI}, 429 \mathrm{YI}, 435 \mathrm{HI}, 445 \mathrm{YI}, 447 \mathrm{YI}, 448 \mathrm{HI}$, $459 \mathrm{YI}, 463 \mathrm{YI}, 464 \mathrm{HI}, 465 \mathrm{HI}, 467 \mathrm{HI}, 468 \mathrm{HI}, 469 \mathrm{HI}, 476 \mathrm{HI}$, $479 \mathrm{HI}, 480 \mathrm{HI}, 486 \mathrm{HI}, 487 \mathrm{HI}$

## Group C

JLP $374 \mathrm{HI}, 47 \mathrm{IHI}$, PSY $100 \mathrm{HI}, 20 \mathrm{IHI}, 210 \mathrm{HI}, 220 \mathrm{HI}, 270 \mathrm{HI}$, $280 \mathrm{HI}, 300 \mathrm{HI}, 30 \mathrm{IHI}, 3 \mathrm{IIHI}, 3 \mathrm{I} 2 \mathrm{HI}, 3 \mathrm{I} 4 \mathrm{HI}, 320 \mathrm{HI}, 32 \mathrm{IHI}$, $322 \mathrm{HI}, 324 \mathrm{HI}, 326 \mathrm{HI}, 328 \mathrm{HI}, 334 \mathrm{HI}, 370 \mathrm{HI}, 372 \mathrm{HI}, 420 \mathrm{HI}$, $47 \mathrm{IHI}, 472 \mathrm{HI}, 473 \mathrm{HI}$

## Group D

ENV 200YI, 234YI, 235YI, 32 IYI, GGR I07YI, I24YI, $203 \mathrm{HI}, 220 \mathrm{YI}, 233 \mathrm{YI}, 3 \mathrm{I} 2 \mathrm{HI}, 3 \mathrm{I} 4 \mathrm{HI}, 33 \mathrm{IHI}, 338 \mathrm{HI}, 343 \mathrm{HI}$, $364 \mathrm{HI}, 368 \mathrm{HI}, 393 \mathrm{HI}, 409 \mathrm{HI}, 4 \mathrm{I} 5 \mathrm{HI}, 439 \mathrm{HI}, 452 \mathrm{HI}, 333 \mathrm{HI}$, $398 \mathrm{HO} / 399 \mathrm{YO}, 4 \mathrm{I} 8 \mathrm{HI}, 435 \mathrm{HI}, 494 \mathrm{HI}$, JIE $222 \mathrm{YI}, \mathrm{PHL} 273 \mathrm{HI}$, 373 HI

## Group E

ANT $100 \mathrm{YI}, 204 \mathrm{YI},, 329 \mathrm{YI}, 343 \mathrm{YI}, 349 \mathrm{HI}, 362 \mathrm{YI}, 363 \mathrm{YI}$, $364 \mathrm{YI}, 366 \mathrm{HI}, 368 \mathrm{HI}, 395 \mathrm{Y} 0 / 396 \mathrm{YO}, 425 \mathrm{HI}, 426 \mathrm{HI}, 427 \mathrm{HI}$, $440 \mathrm{HI}, 448 \mathrm{HI}, 450 \mathrm{HI}, 452 \mathrm{HI}$, SOC $205 \mathrm{YI}, 210 \mathrm{YI}, 2 \mathrm{I} 2 \mathrm{YI}$, 2I3YI, 2I5YI, 220YI, 250YI, 30IYI, 306YI, 3I2YI, 320YI, $330 \mathrm{YI}, 336 \mathrm{HI}, 344 \mathrm{YI}, 355 \mathrm{YI}, 356 \mathrm{YI}, 360 \mathrm{YI}, 365 \mathrm{YI}, 367 \mathrm{HI}$, 386YI

## Group F

JPP $343 \mathrm{YI}, \mathrm{PHL} 230 \mathrm{HI}, 232 \mathrm{HI}, 235 \mathrm{HI}, 240 \mathrm{HI}, 244 \mathrm{HI}, 247 \mathrm{HI}$, $27 \mathrm{IHI}, 273 \mathrm{HI}, 275 \mathrm{HI}, 3 \mathrm{I} 7 \mathrm{HI},, 340 \mathrm{HI}, 34 \mathrm{IHI}, 342 \mathrm{HI}, 35 \mathrm{IHI}$, $357 \mathrm{HI}, 365 \mathrm{HI}, 370 \mathrm{HI}, 373 \mathrm{HI}, 375 \mathrm{HI}, 378 \mathrm{HI}, 380 \mathrm{HI}, 394 \mathrm{HI}$, RLG $333 \mathrm{HI}, \mathrm{UNI} 250 \mathrm{HI}$

## Major program:

(7 full courses or their equivalent)
I. HIS I03YI/ECO I00YI/I05YI; (PSY I00HI + PSY 220H)/

SOC IOIYI; POL 208YI
2. UNI $260 \mathrm{YI}, 360 \mathrm{YI}$
3. Two complementary courses, at least one of which must be at the $300+$ series level, from:
ECO 230 Y , GGR 439 HI , HIS $24 \mathrm{IHI}, 242 \mathrm{HI}, 343 \mathrm{YI}$,
$344 \mathrm{YI}, 377 \mathrm{YI}, 40 \mathrm{YI}, 4 \mathrm{I} 2 \mathrm{YI}, 445 \mathrm{HI}$; HPS 306HI; PHL 378 HI ; POL $20 \mathrm{IYI}, 304 \mathrm{HI}, 3 \mathrm{IOYI}, 3 \mathrm{I} 3 \mathrm{YI}, 32 \mathrm{IHI}, 323 \mathrm{YI}$, $326 \mathrm{YI}, 340 \mathrm{YI}, 346 \mathrm{HI}, 4 \mathrm{I} 7 \mathrm{YI}, 454 \mathrm{YI}$; PSY $220 \mathrm{HI}, 270 \mathrm{HI}$, 322 HI ; RLG I00YI; SOC $210 \mathrm{YI}, 330 \mathrm{YI}$; or alternative courses on the approval of the Program Director
Joint International Relations Program/Peace and Conflict Studies Program - See Trinity College

## Sexual Diversity Studies (Arts program)

Consult Program Assistant, Room 25I, University College, 416-978-6276.
Completion of four courses is required for enrolment in the Sexual Diversity Studies program. Students enrolling in the program should confer with the Program Director at their earliest convenience.
Additional courses may be approved by the Program Director on an individual basis. Students are responsible for checking coand prerequisites for courses from Group A and Group B.

## Major program:

( 6 full courses or their equivalent; 2.0 full-course equivalents must be at the $300+$ level)
I. UNI $255 \mathrm{HI}, \mathrm{UNI} 256 \mathrm{HI}$
2. At least one of UNI $354 \mathrm{HI}, \mathrm{UNI} 355 \mathrm{HI}$
3. At least two of POL3I5HI, UNI365HI, ENG273YI
4. At least two full course equivalents from Group $A$.
5. Any remaining course requirements may be drawn from Group B to a total of 6.0 FCE.
N.B. At least two full course equivalents must be drawn from courses at the $300+$ level.

## Minor program:

(4 full courses or their equivalent)
I. UNI $255 \mathrm{HI} / 256 \mathrm{HI}$
2. Choose between option a) and b)
a) At least two of ENG273YI/POL3I5HI/UNI354HI
b) At least two of ENG273YI/POL3I5HI/UNI355HI
3. Remaining requirements from any combination of courses from Group A and Group B to a total of 4.0 FCE.

## Group A:

ANT366YI, ENG273YI, ENG290YI, GGR363HI, JAL355HI, NEW240YI, NEW26IYI, NEW374HI, PHL243HI, POL3I5HI, SOC 309 YI, SOC $367 \mathrm{HI}, ~ U N I 354 \mathrm{HI}, ~ U N I 355 \mathrm{HI}, ~ U N I 365 \mathrm{HI}$, UNI 375 HI, UNI455HI, UNI $475 \mathrm{HI}, \mathrm{VIC} 343 \mathrm{YI}, \mathrm{VIS} 202 \mathrm{HI}$, VIS208HI,WDW380HI

## Group B:

ANT323YI,ANT343YI,ANT427HI, ENG250YI, ENG339HI, ENG349HI, ENG254YI, ENG36IHI, FRE3I5HI, FRE326YI, GGRI 24 Y I, GGR327HI, GGR362HI, HIS245YI, HIS363HI, HIS375HI, HIS383HI, HIS447Y I, HIS459HI, HIS476YI, INI323YI, INI330YI, INI385YI, JPP343YI, NEWI60YI, NEW27IYI, NEW360YI, NEW365HI, NEW368HI, NEW369HI, PHL267HI, PHL27IHI, POL2I6HI, POL332YI, POL344YI, POL364HI, POL432YI, PSY323HI, RLG236HI, RLG237HI, RLG309YI, RLG3I4HI, SOC2I4HI, SOC365YI, UNI220YI,VIS209HI,VIS2I7HI,VIS2I8HI,VIS302HI,VIS3I8HI, VIS3I9HI

## University College Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), UNI
courses are variously classified; see entry at end of each course.

## Canadian Studies Courses

JWU200HI Toronto in the Canadian Context 26L
Toronto is a complex urban region marked by social diversity and a multi-textured cultural scene. This course examines Toronto's history, culture, society, economy and status as a global city within the Canadian context.
This is a Humanities or Social Science course.

## UNI2OIHI Aspects of Québec Society 26S

Contemporary Québec from social, economic and political perspectives.
This is a Social Science course

## UNI202HI Aspects of Québec Culture 26S

An exploration of modern Québec culture as expressed in literature and the performing arts. Through a selection of internationally-known entertainers, we examine form, artistic innovation, communication of information and knowledge and spectatorship. Novels and plays provide key elements such as tradition and historical context.
This is a Humanities course
UNI205H I Topics in Canadian Studies I 26L
A focused introduction to specific issues in Canadian culture and society. Content will vary from year to year. Specific course information will be available on the Canadian Studies web site at www.utoronto.ca/canstudies.
This is a Humanities or Social Science course.

## SOC2I8YI Asian Communities in Canada 52L (formerly SOC342YI)

The course will explore the structures and processes of Asian communities in Canada. Historical development of various Asian communities will be explored. Other topics include ethnic economy, ethnic media, ethnic churches, and ethnic voluntary organizations in Asian communities. Experts in related topics are invited to present their research findings. Non-sociology students may seek departmental permission to enrol.
Exclusion: SOC 342YI/394YI
This is a Social Science course

## UNI2I8HI Voices in Canadian Writing 26S

A study of the variety of voices in Canadian fiction. Issues such as marginalization and the formulation of the Canadian canon are discussed.
This is a Humanities course
UNI220YI Understanding Canada Today: 52L, 26T Re-Imagining the Nation
An introduction to key events and issues in contemporary Canada. This course provides a multi-disciplinary perspective on a wide range of topics such as constitutional reform; multiculturalism and immigration; social welfare; environmentalism; globalization; economic policy; gender and sexuality; arts and culture.
This is a Humanities or a Social Science course
UNI22IHI Culture and the Media in Canada 26L
An exploration of the encounter between culture and mass communication in Canadian society. The course includes a consideration of the major institutions affecting culture such as
the CBC, the NFB, and the granting bodies, and largely focuses on particular instances and case studies in the arts and media.
Emphasis is placed on the changing role of nationalism, and the relationship between political concerns and Canadian culture.
This is a Social Science course

## UNI304HI Beyond Multiculturalism:

Ethnicity and Race in Canada
A multidisciplinary examination of the emergence of new approaches to identity and community that go beyond official bilingualism and multiculturalism. To include cultural/literary works as well as historical and social scientific analyses illuminating relations between cultural and racial communities in post 1960's Canada, with an emphasis on Toronto.
Prerequisite: UNI 220YI or two courses on the study of Canada
This is a Humanities or a Social Science course

## UNI305HI Topics in Canadian Studies 2

26L
An in-depth study of selected questions in contemporary Canadian culture and society. Content will vary from year to year. Specific course information will be available on the Canadian Studies web site at www.utoronto.ca/canstudies. This is a Humanities or Social Science course.
UNI307YI Asian Cultures in Canada 52L
An exploration of the cultural histories and creative production specific to a wide range of Asian communities in Canada. Content will present humanities perspectives according to the instructor's specialty. Experts in specific areas -literature, dance, drama, film-will be invited to present their work. Recommended Preparation: UNI 220YI
UNI3I7YI/ Politics of Aboriginal 52L/26L 317HI Self-Government
A survey of some of the main issues surrounding the politics of aboriginal self-government in Canada. Proceeding historically, the course examines the legal and political conditions that have fuelled the call for self-government. (Offered in alternate years)
Prerequisite: ABS20IYI/POLI02YI/I03YI/UNI220YI or
permission of the instructor
This is a Social Science course
JUG320HI The Canadian Wilderness
The idea of wilderness permeates narratives of Canadian national identity, while policy-makers seek to manage and contain natural areas. This course compares and contrasts historical and contemporary wilderness narratives in literature, painting and film with policies in areas such as conservation, urban planning, land claims and tourism. (Offered by University College and the Geography Department.)
This is a Social Science course

UNI320YI | Canadian Questions: Issues and |
| :--- |
| Debates |

An in-depth study of selected questions facing contemporary
Canada. Students are encouraged to examine topics from
multiple disciplinary perspectives drawn from the Social
Sciences and Humanities. Issues addressed in recent years
include: multiculturalism in contemporary film; residential
schools,;African Canadian culture; North American integration;
citizenship and global cities; genetics and cloning.
This is a Humanities or a Social Science course

This is a Humanities or a Social Science course
UNI325HI Queerly Canadian
This course focuses on Canadian literary and artistic productions that challenge prevailing notions of nationality and sexuality, exploring not only how artists struggle with

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that ongoing Canadian thematic of being and belonging, but also celebrate pleasure and desire as a way of imagining and articulating an alternative national politics.
Prerequisite: UNI255HI/UNI256HI or UNI220YI or permission of instructor
Exclusion: UNI375HI Special Topics: Queerly Canadian
This is a Humanities course

## UNI420YI Senior Essay 52S

Students select an appropriate research topic and, in consultation with the Program Director, make arrangements with a suitable supervisor. Research projects must be approved by the supervisor preferably and by the Director of the Canadian Studies Program, by April of the preceding academic year. Students meet periodically during the year in seminar to participate in peer evaluations of: statement of research, literature review, methods of analysis, and to share reports of progress in research.
Prerequisite: Open only to Majors and Specialists in the Canadian Studies program

## UNI430HI Senior Seminar: Special Topics in 26S Canadian Studies

An upper level seminar. Topics vary from year to year depending on instructor.
Prerequisite: UNI220YI or two courses on the study of Canada

## Cognitive Science \& Artificial Intelligence Course <br> UNI250YI Introduction to Cognitive Science 78L (formerly JUP250YI)

An introduction to the problems, theories and research strategies central to the interdisciplinary field focussing on the nature and organization of the human mind and other cognitive systems. Interrelations among the philosophical, psychological, linguistic and computer science aspects of the field are emphasized. (Offered by University College and the Department of Philosophy)
Exclusion: JUP250YI
This is a Humanities course
UNI30IHI Exploring Artificial Intelligence I3L, 26P
Models \& Programs
(formerly JUP30IHI)
A hands-on course for students with some programming background to enable direct understandings of programs in traditional AI, neural networks, genetic algorithms, artificial life, dynamic systems, and robotics. Simple and classical algorithms are demonstrated, and students will learn to operate and extend them. This course gives second- and third-year students experience of working models that they have read about, and can also serve as an introduction to programming in artificial intelligence and cognitive science.
Prerequisite: CSCI07HI/I08HI or Instructor's permission
Co-requisite: UNI250YI
Exclusion: JUP30IHI
This is a Science course.

## UNI302HI Bases of Cognition

Extending the depth of understanding of conceptual issues in cognitive science, including intentionality, semantics, mechanism, and consciousness. Students study primary literature, including. Descartes, Turing, Chomsky, Brooks, Dennett, Searle, et al. and they elaborate their own conceptual frameworks in cognitive
science.Co-requisite: UNI250YI
Exclusion: JUP302HI
This is a Humanities course.

UNI40IHI | Advanced Cognitive Science |
| :--- |
| (formerly JUP450HI) |

A seminar on the following questions:"What is consciousness? What does it take for a creature to be conscious? What is objectivity? How may a creature be objective?" Students bring to bear on these questions their diverse background in analytic philosophy, anthropology, artificial intelligence, connectionism, linguistics, neuroscience, phenomenology, or psychology. Readings cover visual perception, spatial navigation, attention, working memory, reference, object permanence, evolution of language, the frame problem, the binding problem, and the qualia problem.
Prerequisite: UNI302HI or permission on the instructor Exclusion: JUP450HI

## UNI402HI Theoretical Psychology 52L26P

An introduction to the techniques of theory simplification,
amplification, integration, and generation, which provide a
bridge between psychology and the philosophy of science. Emphasis is placed on the skills of critical thinking and theory analysis needed to support these techniques and to build a methodology for cognitive science.
Prerequisite: UNI 250YI
This is a Science course

## UNI403HI Introduction to Cognitive I3L, 26P Robotics

A hands-on course to advance practical skills and theoretical understanding through challenging students to a series of cognitively significant robotics tasks in realistic settings. Students bring to bear on robot construction their prior study in artificial intelligence, psychology, and philosophy and develop a strong background for thinking about embeddedness and embodiment issues that have been at the centre of recent cognitive science.
Prerequisite: UNI3OIHI or permission from instructor
This is a Science course

## Health Studies Courses

Students enrolled in the Health Studies program are given the first opportunity to enroll in these courses.

## UNI200HI Introduction to Research Methods in Health Studies (formerly UNI200YI)

This course will offer students in Health Studies a basic understanding of research design and data collection on health topics and the usefulness of data collection in the formation of health policy.
Exclusion: POL 242YI, SOC 200HI, UNI200YI,WDW 350YI
This is a Social Science course
UNI2IOHI Introduction to Statistical 39L Analysis in Health Studies (formerly UNI200YI)
This course will offer students in Health Studies a basic understanding of statistical data analysis, data interpretation, and the use of such data in the formation of health policy. Exclusion: POL 242YI, SOC 202 HI , UNI200YI,WDW 350YI
This is a Social Science course

## University College

## UNI300HI Canadian Health Care Policy (formerly UNI300Y)

This course introduces students to development and issues related to Canadian health care policy. The course examines basic policy making process; policy making process in Canadian context; development of Canadian health care policy; and current health care reform debates and issues. Health care is increasingly contentious with aging population, advancements in medical technology, government fiscal restraints. How to achieve best health care given limited resources, and ensure fair, equal, accessible health care. Overview of current policy issues and its relationship to social inequality, gender, and race, provide analytical tools for understanding.
Exclusion: SOC 35IYI, 352HI, UNI300Y
Prerequisite: UNI 200HI, 210HI
This is a Social Science course
UNI309HI Special Topics in Health Studies
Study of a particular topic in Health Studies. The specific content of this course will vary from one year to another, depending on the availability of particular health researchers and scholars. In a given year, the course may focus on HIV/AIDS, tobacco addiction, nutritional issues, or gerontology and health problems related to the aging process.

## UNI3IOHI Emerging issues in Health and Social Policies (formerly UNI300Y)

This course explores emerging issues in health and social policies. Using the framework of social determinants of health, this course examines the implications of social factors such as socio-economic inequity, gender, race, homelessness, age, and citizenship status on individual health; and policy options to address these issues.
Exclusion; UNI300YI

## UNI370HI Psychology of Physical Activity and Sport

This course develops the students' understanding of individual behaviour towards physical activity, sport and play. While the focus is on the individual participant, the course also examines the basic psychological theories underlying behaviour.
Exclusion: PHE 300HI
Corequisite: UNI $200 \mathrm{HI}, 210 \mathrm{HI}$
This is a Social Science course

## UNI37IHI Physical Activity and Social 26L, I3T Inequality

Opportunities for physical activity are profoundly affected by the social structures of Canadian society and persistent inequalities. This course enables students to study the effects of class, gender, race, and sexuality upon opportunities, programs and practices and the means by which social equity might be more effectively pursued.
Exclusion: PHE 30IHI
Corequisite: UNI $200 \mathrm{HI}, 210 \mathrm{HI}$
This is a Social Science course

## UNI373HI Population Health <br> 39L

This issue-oriented course will extend students' understanding of the broad definitions of health and its determinants, and population-based strategies of health promotion in Canada. Topics include: variations in health status as affected by population patterns, class, gender, ethnicity, employment, and family composition; the major causes of morbidity
and mortality; the concept of "community health", and the opportunities and constraints facing public policy.
Exclusion: PHE 3I2HI
Corequisite: UNI $200 \mathrm{HI}, 210 \mathrm{HI}$
This is a Social Science course

## Note

Students enrolled in the Health Studies program are given the first opportunity to enroll in these courses.

## UNI400YI

Practicum in Health Studies
Individual field placement with a health research or administration professional, in which the student applies theory and skills to a specific project. Culminates in an oral and written report.
This is a Social Science course
UNI409HI Special Topics on Health Research 26S
The specific content of this course will vary from one year to another, depending on the availability of particular health researchers and scholars. In a given year, the course may focus on AIDS, tobacco addiction, nutritional issues in low-income countries, and the persistence of infant health problems in poor Canadian communities.
This is a Social Science course.

## UNI4IOHI Communities and Community 26S Health

This course is about the formation and growth of communities -about their social organization and the problems that small and vulnerable communities often face. There will be a focus on problems of poverty, social marginality, and powerlessness, and the health consequences of these for community members. Prerequisite: UNI $200 \mathrm{HI}, 210 \mathrm{HI}$
This is a Social Science course.
UNI440HI Epidemiology 26S

This course aims to provide an introductory understanding of the basic concepts and methods in eipdemiology. The emphasis will be on descriptive methods and study design. Computational techniques, measurement problems, and issues that surround the drawing of inferences from area-level or other aggregate data will be discussed.
Prerequisite: UNI $200 \mathrm{HI}, 210 \mathrm{HI}$
Recommended preparation:, UNI 373HI
This is a Social Science course.

## UNI446HI Health Care 26L

Cultural dimensions of health and illness and their significance for health professionals; cross-cultural communication; assessment of clients from culturally diverse backgrounds; delivery of culturally sensitive health care.
This is a Social Science course

## UNI462HI Case Studies in Health Policy 26L

Formulation and implementation of public policy using studies focused on theoretical concepts; comparisons of policy alternatives.
This is a Social Science course

## UNI464HI International Health

26L
A course intended to widen the horizons and learning opportunities of future health system managers through international and intercultural learning, and to provide a learning environment for understanding different ways of

## University College

approaching issues and problems related to health sciences management.
This is a Social Science course

## UNI45 IYI Independent Research in <br> TBA

Health Studies
This two-semester course designation will permit students to gain academic credit for health studies pursued independently under the supervision of a University of Toronto faculty member; or to participate in an ongoing health research project under the joint supervision of the project's Principal Investigator and the Director of the Health Studies Program.
Prerequisite: UNI $200 \mathrm{HI}, 210 \mathrm{HI}$
This is a Social Science course.

## UNI470HI Health Psychology: Physical Education \& Health

This course provides students with an overview of contemporary topics in health psychology: psychological theory, research and skills relevant to the promotion and maintenance of optimal health and the prevention and treatment of illness and physical injury. The first half of the course will cover theoretical frameworks for understanding health behaviour, motivation, and psycho-social factors that influence health attitudes and behaviour. In the second half, topics germane to clinical health psychology and multi-disciplinary settings will be explored. Emphasis on the role of health psychology and exercise wellness behaviour, and on professional issues and ethical practices for physical and health education students. This is a Social Science course

## UNI47 IHI Physical Activity, Health 26L, I3T and the Media

This course draws upon communications theory, political economy, semiology and sociology to examine the ways in which meanings about physical activity are produced, distributed, and consumed through the media. Topics include: the social marketing of health, advertising and the "body politic", media advocacy, sports and fitness marketing, and the production of sport as a media event.
Prerequisite: $\mathrm{PHE} 30 \mathrm{IHI} / \mathrm{UNI} 37 \mathrm{IHI}$
Exclusion: PHE 402HI
This is a Social Science course
UNI472HI Body, Health and Culture 26L, I3T
This course examines the body as a terrain of complex cultural politics. Drawing upon a variety of sources, especially post-modern theory, cultural anthropology, and philosophy, it will consider the ways in which the "body" has been conceptualized and the ways in which discourses on bodies have led to important political struggles, particularly in the social construction of health and sickness.
Exclusion: PHE 403 HI
This is a Social Science course

## UNI473HI Physical Activity in the Ancient and Early Modern World

The ancient Greeks and Romans were intensely interested in sport, physical education, and the maintenance of physical strength and health. The Renaissance revived this interest and transformed physical pursuits from marginal activities into structured components of the social system. Our contemporary concepts of sport, health, and physical culture were first
formulated at that time. The readings (in English translation) will be taken from original ancient and early-modern documents. Exclusion: PHE 423HI
This is a Social Science course

## UNI474HI Health Topics in Literature

he specific content of this course will vary from one year to another, depending on the availability of particular scholars to offer the course. Its purpose is to take advantage of the occasional availability of a prominent humanist in the health field. In a given year, the course may focus on changes in the perception and portrayal of illness or death or disability in the poetry, prose or drama of a particular country: England, France, and so on.
This is a Humanities course.

## UNI476HI Historical Approaches to Health

26SThe specific content of this course will vary from one year to another, depending on the availability of particular historians to offer the course. In a given year, the course may focus on the Black Death epidemic in Europe, problems of sanitation in ancient Rome, nutritional issues in pre-industrial China, and so on.
This is a Humanities or Social Science course.

## UNI480HI Independent Research in TBA Health Studies

This one-semester course will permit students to gain academic credit for health studies pursued independently under the supervision of a University of Toronto faculty member; or to participate in an ongoing health research project under the joint supervision of the project's Principal Investigator and the Director of the Health Studies Program
Prerequisite: UNI200HI, 210HI
This is a Social Science course.

## Peace and Conflict Studies Courses

## UNI260YI Introduction to Peace and Conflict Studies <br> (formerly UNIIIOYI)

A review of the full range of theories explaining the nature and causes of conflict and possibilities for its resolution; provides students with a set of theoretical tools for effective analysis of interpersonal, civil, and international conflict.
Exclusion: UNIIIOYI
This is a Social Science course
UNI360YI Topics in Peace and Conflict 52L
An in-depth exploration of selected issues introduced in UNI260YI. Topics may include: negotiation theory; ethnic and group-identity conflict; feminist perspectives on peace and war; mathematical modeling of arms races and war; decision-making theory and conflict; environmental change and conflict; and traditional perspectives on statecraft.
Prerequisite: UNI260YI or permission of the instructor
Recommended preparation: POL208Y।
This is a Social Science course
JUP460HI/YI Contemporary Issues in Peace 26S/52S and Conflict
A colloquium (fall term) and research seminar (spring term, JUP460Y only) on security ontology and various meanings of security. Topics to be considered include planetary, ecospheric,
state, societal, and human security. (Offered by the Department of Political Science and University College)
Exclusion: Students are not allowed to take both H and Y courses Prerequisite: POL208Y and UNI360Y/permission of the instructor This is a Social Science course

## Sexual Diversity Studies Courses

UNI255HI History and Perspectives in 26L, I3T

## Sexual Diversity

An interdisciplinary examination of sexuality across cultures and periods. How are sexualities represented? How are they suppressed or celebrated? How and why are they labeled as straight, gay, lesbian, bisexual, queer, or perverse? How do sexualities change with ethnicity, class, and gender?
This is a Humanities or Social Science course

## UNI 256HI Sexualities: Social, 26L, I3T <br> Organizational, and Legal Contexts

A social sciences approach to sexual diversity across societies, and of the increased visibility of that diversity in such settings as the family, the workplace, and the law, as well as the role that such contexts play in shaping sexual identity.
This is a social science course.

## UNI325HI Queerly Canadian 26L

This course focuses on Canadian literary and artistic productions that challenge prevailing notions of nationality and sexuality, exploring not only how artists struggle with that ongoing Canadian thematic of being and belonging, but also celebrate pleasure and desire as a way of imagining and articulating an alternative national politics.
Prerequisite: UNI255HI/UNI256HI or UNI220YI or permission of instructor
Exclusion: UNI375HI Special Topics: Queerly Canadian
This is a Humanities course

## UNI354HI Theories of Sexuality I:The Foundations

A survey of classic western theories of sexuality; each theory is examined in terms of the practices it allows and prohibits. Under consideration are not only the descriptive and/or prescriptive aspects of a particular framework but its epistemic grounds, and implications for understanding identity, body, community, and state. Prerequisite: UNI255HI
This is a Humanities or Social Science course

## UNI355HI Theories of Sexuality II: Contemporary Perspectives

An integrated survey of some ways in which sexuality has been theorised recently. How have desire and its identities been conceptualised and deployed? What are the implications for psychoanalysis, feminism, and cultural production? What interconnections are yet to be made between sexuality and the markers of gender, race, and class?
Prerequisite: UNI255HI or permission of instructor
This is a Humanities or Social Science course

## UNI365HI Sexuality and Law 26L/S

An overview of the points where sexuality and law intersect, through surveying ways of thinking about how law interprets, regulates and defines sexuality, and how communities and groups oppressed on the basis of sexuality fare under the law in Canada and elsewhere.
Prerequisite: POL3I5HI/UNI255HI/UNI256HI or permission of instructor
This is a Humanities course

## UNI375HI

Special Topics in Sexual
26L/S

## Diversity Studies

Topics vary from year to year depending on instructor. This seminar is intended to expose students in the Sexual Diversity Studies program to topics that may not be covered by permanent university courses. See www.utoronto.ca/sexualdiversity/special. html for decriptions of current topics.
Prerequisite: UNI255HI/UNI256HI or permission of instructor
UNI455HI Special Topics in Sexual

## Diversity Studies

Topics vary from year to year depending on instructor. This seminar is intended to expose students in the Sexual Diversity Studies program to topics that may not be covered by permanent university courses. See www.utoronto.ca/sexualdiversity/special. html for decriptions of current topics.
Prerequisite: UNI $255 \mathrm{HI} / \mathrm{UNI} 256 \mathrm{HI}$
Recommended preparation: POL $315 \mathrm{HI} / \mathrm{UNI} 354 \mathrm{HI} / \mathrm{UNI} 355 \mathrm{HI}$ This is a Humanities or Social Science course

## UNI475HI The New Queer Visibility

26S
This interdisciplinary course critically examines the socio-political cultural context that has produced a new queer visibility. The course assesses many of the post-Stonewall changes in the North American public sphere and the interrelationship between the new queer visibility and the North American public sphere.
Prerequisite: UNI 255 HI and UNI355HI or permission of the instructor
This is a Humanities or Social Science course

## Other University College Courses

JUM202HI Mathematics as an 26L, I3T Interdisciplinary Pursuit (formerly JUMI02HI)
A study of the interaction of mathematics with other fields of inquiry: how mathematics influences, and is influenced by, the evolution of science and culture. Art, music, and literature, as well as the more traditionally related areas of the natural and social sciences may be considered. (Offered every three years) Exclusion: JUMIO2HI
JUM202HI is particularly suited as a Science Distribution Requirement course for Humanities and Social Science students.
JUM203HI Mathematics as Recreation 26L, I3T (formerly JUMI03HI)
A study of games, puzzles and problems focusing on the deeper principles they illustrate. Concentration is on problems arising out of number theory and geometry, with emphasis on the process of mathematical reasoning. Technical requirements are kept to a minimum. A foundation is provided for a continuing lay interest in mathematics. (Offered every three years)
Exclusion: JUMIO3HI
JUM203HI is particularly suited as a Science Distribution Requirement course for Humanities and Social Science students.
JUM204HI Mathematics and Poetry 39L
An interdisciplinary exploration of creativity and imagination as they arise in the study of mathematics and poetry. (Offered every three years)
Exclusion: JEM204HI
JUM204HI is particularly suited as a Science Distribution Requirement course for Humanities and Social Science students.

## JUM205HI Mathematical Personalities 26L, I3T

 (formerly JUMIO5HI)An in-depth study of the life, times and work of several mathematicians who have been particularly influential. Examples may include Newton, Euler, Gauss, Kowalewski, Hilbert, Hardy,
Ramanujan, Gödel, Erdös, Coxeter, Grothendieck. (Offered every three years)
Exclusion: JUMI05HI
JUM205HI is particularly suited as a Science Distribution
Requirement course for Humanities and Social Science students.
UNI299YI Research Opportunity Program
Credit course for supervised participation in faculty research project. See page 47 for details.

| UNI393YI/ | University College | TBA |
| :--- | :--- | :--- |
| 394HI | Independent Studies |  |

An opportunity to pursue at the 300 -level an independent course of study not otherwise available within the Faculty. A written proposal, co-signed by the instructor, must be submitted on the appropriate proposal form for approval by the Vice-Principal of University College prior to registration.
Prerequisite: Permission of University College Vice-Principal

| UNI495Y I/ | University College | TBA |
| :--- | :--- | :--- |
| 496HI | Independent Studies |  |

An opportunity to pursue at the 400 -level an independent course of study not otherwise available within the Faculty. A written proposal, co-signed by the instructor, must be submitted on the appropriate proposal form for approval by the Vice-Principal of University College prior to registration.
Prerequisite: Permission of University College Vice-Principal

## Victoria College

## Faculty

## Professors Emeriti

A. Baines, MD, PhD (Vic One)
D. Duffy, MA, PhD (Vic One)
E. Kushner, PhD (Renaissance Studies)

## Professors

K.R. Bartlett, MA, Ph D (Renaissance Studies)
P. Corey, MA, PhD (Vic One)
M. Danesi, MA, PhD FRSC (Semiotics)
K. Eisenbichler, MA, Ph D (Renaissance Studies)
N.Terpstra, MA, PhD (Renaissance Studies)
P.Thompson, PhD (Vic One)

## Associate Professors

E. Cazdyn, PhD (Literary Studies)
R. Comay, PhD (Literary Studies)
M. Legge, MDiv, PhD
A. Motsch, MA, PhD (Literary Studies)
M. Nyquist, MA, PhD (Literary Studies)
J.W. Patrick, MA, PhD (Literary Studies)
W. Robins, MA, PhD (Literary Studies and Vic One)
S. Sedivy, PhD (Vic One)
L. Somigli, PhD (Literary Studies)

## Assistant Professors

S. Cook, PhD (Vic One)
A. Komaromi, MA, PhD (Literary Studies)
J. Selles, MA, EdD

## Senior Lecturers

J. Levine, MA, Ph D (Literary Studies)
A. Urbancic, MA, PhD (Vic One)

## Special Lecturers

P. Harris, MA (Vic One)
A. Moritz, MA, PhD (Vic One and Creative Writing)

## Visiting Professor

D. Wright, BSc, MBA (Kenneth and Patricia Taylor Distinguished Visiting Professor in Foreign Affairs) (Vic One)

Victoria College offers VIC One, a first year sequence of courses, and interdisciplinary programs and courses listed below so that students have an opportunity to examine important themes and problems of our culture from a variety of points of view. Most of the courses introduce ideas and methods from various disciplines; in this way students can explore areas of interest they otherwise might overlook, and also gain insight into comparative studies.

Several of the courses have a place in the established programs of study indicated below. In addition, the courses are designed to serve the interests of those who, whatever their intended field of specialization, wish to introduce variety into their program, or who have not decided on a discipline, and wish to examine different approaches to humane studies.

## VIC One

Victoria College offers first-year Arts and Science students an opportunity for a unique educational experience that draws upon the college's history and identity. Four streams with
differing emphasis are available in this foundation year program, known as Vic One. They are named in honour of four respected Canadian leaders, all Victoria College alumni. The Frye stream, named after former Victoria College professor and renowned literary critic Northrop Frye, focuses on the humanities. The Pearson stream, named after former Canadian prime minister Lester Pearson is concerned with the social sciences. The Augusta Stowe-Gullen stream, named after the first woman to graduate from a Canadian medical school, is of interest to students wishing to pursue studies in the life sciences. The Egerton Ryerson stream, named after the first Principal of the College who was a pioneer in Canadian education, is an opportunity to introduce first year students to issues in education and teaching.

The four streams feature seminars, lectures, small tutorials and informal conversation, and are enriched by guest professors, visiting artists, writers, ambassadors and other public figures.

Each Vic One stream comprises three first-year courses out of the five courses taken by most first year students. Two courses in each stream are seminar courses given by Victoria College. They have a limited enrolment of 25 students in each class. The third course is selected, in the Pearson stream, from the firstyear offerings in history or political science; in the Frye stream, it is JEF IOOY:The Western Tradition; in the Stowe-Gullen stream, it is BIO I50Y: Organisms in their Environment, and in the Egerton Ryerson stream, it is PSY 100 HI , Introductory Psychology.

Vic One enrolment is limited to 150 students. It requires an application that is found on the Vic One web site (www.vicu. utoronto.ca). All first-year students in the Faculty of Arts and Science (St. George campus), regardless of college membership, are eligible for admission to Vic One.Admission decisions are made based on extra-curricular activities, a short original essay and the student's entering grades.

## VIC First: Pathways for First Year

The Vic First experience is created by a Pathway that links together two stimulating first year courses, at least one course or section with limited enrolment, delivered by outstanding lecturers. Vic First also adds extra value in additional out-ofclass activities. Each Pathway combines one of the popular large courses offered on the Vic campus with a complimentary smaller enrolment course that will offer students a sense of being in an academic cohort. The Pathways will provide an excellent foundation for a student's subsequent studies. Priority will be given to Victoria College students at the beginning of registration. Thereafter Vic First will be open to all first-year students in the Faculty of Arts and Science.

## The Literary Studies Program

(Specialist, Major and Minor) will be attractive to students who wish to read major works drawn from a variety of languages and cultural contexts. The program combines close attention to literary texts with theoretical reflection on relations between literary and non-literary works (for example, philosophy, art, film, history). Contemporary debates in literary and cultural theory will play a key role.

Students may enroll in one of two streams, Comparative Literature (Specialist and Major) or Interdisciplinary Studies (Specialist and Major). Students may also enroll in the Minor program, or in the joint Specialist with Philosophy.

Students who enrolled in one of the Literary Studies programs prior to July 2007 may, if they wish, follow the requirements in place in 2006. (VIC 309HI and VIC3IOHI will be considered equivalent to VIC3IOY.)

## The Renaissance Studies Program

(Specialist, Major and Minor) studies one of the critical periods in European and world history. The Renaissance witnessed changes in art and literature, in social and political development, and in technology and science that were to transform our concept of the world. This interdisciplinary program is particularly attractive to students of history, politics, literature, fine art, history of science, music and theatre, because it assembles aspects of all these studies to focus on one seminal period in Western civilization.

## The Semiotics and Communication Theory Program

( Major and Minor) investigates the science of communication and sign systems, the ways people understand phenomena and organize them mentally, the ways in which they devise means for transmitting that understanding and for sharing it with others. It covers all non-verbal signalling and extends to domains whose communicative dimension is perceived only unconsciously or subliminally. Knowledge, meaning, intention and action are thus fundamental concepts in the semiotic investigation of phenomena.

## Concurrent Teacher Education Program

(Joint BA/BSc/BEd) prepares students for a career in teaching as well as encourages students to follow an Arts and Science program of study focussed on the urban environment. Program begins in 2008 with entry in second year. Students in first year should consider the Ryerson Stream of Vic One as preparation. Enrolment is limited to 30 students.

## Victoria College Programs

## Concurrent Teacher Education Program (CTEP)*

*CTEP will be offered beginning September 2008. Students interested in the program should consider enrolling in the Ryerson Stream of Vic One.
CTEP offers students the opportunity to complete the B.A./ B.Sc degree and the B.Ed. The program is offered in partnership with O.I.S.E. Complete description of the program may be found on the OISE web site. Admission into the CTEP is by application at the end of first year when the Arts and Science subject POSTs are selected. All applicants must have a minimum GPA of 2.8 and have completed PSY 100 H . Recommended preparation is the Ryerson stream of Vic One.

## Requirement of CTEP for BA/B.Sc./B.ED

## Students

All students admitted to the Victoria College CTEP are required to enroll in the Education and Society minor program. It is also recommended, in addition to the B.Ed. courses and associated requirements, that students select a major or minor in the general area of urban studies.
CTEP students may fulfill the remaining major or minor for the B.A./B.Ed. degree as they wish. CTEP students may not enroll in specialist programs in order to have sufficient space in their program to complete the concurrent B.ED requirements.

## Major and Minor Programs in the Urban Environment

Students are recommended to enroll in either a major or minor in any of the Faculty's programs concerning the urban environment.

## Minor Program Education and Society (CTEP)

The minor in Education and Society is open only to students registered in the Concurrent Teacher Education Program who must take the minor.
(4 full courses or their equivalent, including at least one 300+ series course)
I. PSYIOOH
2. An additional half-year or full year/first year course selected from ANT 100Y, SOC 100Y or GGR 124Y. Vic One Ryerson students may satisfy this requirement with either VIC I50Y or VIC I5 IY.
3. VIC 260H Equity and Diversity in Education VIC 26IH Child and Adolescent Development in Education JSV 262H Communication and Conflict Resolution
4. VIC 360 H CTEP Internship
5. One other course related to Education and Society at the 300 level or higher selected from the offerings in Sociology, Anthropology or Geography (Arts). Courses in other departments, including those in the Department of Theory and Policy Studies at OISE require approval of the CTEP Vic Coordinator.

## Literary Studies (Arts program)

## Program Coordinator TBA

Enrolment in the Literary Studies program is open to students upon completion of four courses; no minimum GPA required.
The program will begin in second year. However, JEFIOOYI or VIC20IYI are recommended introductory courses for first year students.
All students following a major or specialist program will be required to study a second language, and should consider beginning such course work in their first year.

## Specialist program in the Comparative Literature

 stream:(13-14 full courses or their equivalent)
I. Complete major in the Comparative Literature stream (see requirements below)
2. Complete a major in a literature other than English
3. Normally VIC490YI. Please consult the program coordinator for further instruction.

## Major program in the Comparative Literature stream: <br> (7 full courses or their equivalent)

I. VIC $201 \mathrm{YI}, 2 I 0 Y \mathrm{I}, 3 \mathrm{IIHI}$ and one of $309 \mathrm{HI} / 310 \mathrm{HI} / 3 I O Y \mathrm{I}$
2. I. 0 FCE from VIC $300 \mathrm{HI} / \mathrm{YI}, \mathrm{VIC} 30 \mathrm{IHI} / \mathrm{YI}, \mathrm{VIC} 309 \mathrm{HI} /$ VIC3IOHI/3IOYI,VIC $40 \mathrm{IHI} / \mathrm{YI}, \mathrm{VIC} 4 I O H I / Y I, V I C$ $41 \mathrm{IHI} / \mathrm{YI}$, JNV 300 HI . In exceptional circumstances, and with the permission of the program coordinator, students may choose another course.
3. 3.0 FCE's in literature in the original language (not English). I. 0 FCE may be at the 200 level. At least 2.0 FCE's must be at the 300+ level.

## Victoria College

## Specialist program in the Interdisciplinary stream:

(I2 full courses or their equivalent, including at least I. 0400 level course)
I. VIC $201 \mathrm{YI}, 210 \mathrm{YI}, 3 I \mathrm{IHI}$ and one of $309 \mathrm{HI} / 3 I 0 \mathrm{HI} / 3 \mathrm{IOYI}$
2. 2.0 FCE's from VIC $300 \mathrm{HI} / \mathrm{YI}, 30 \mathrm{IHI} / \mathrm{YI}, 309 \mathrm{HI} / 3 \mathrm{IOHI} /$ $3 \mathrm{IOYI}, 40 \mathrm{IHI} / \mathrm{YI}, 4 \mathrm{IOYI}, 4 \mathrm{IH} / \mathrm{YI}, \mathrm{JNV} 300 \mathrm{HI}$
3. 4.0 FCE's in another discipline chosen in consultation with the program coordinator.
4. 2.0 FCE's in a language other than English, at least I. 0 at the 300+ level
5. Normally VIC 490 YI. Please consult the program coordinator for further instruction.

Major program in the Interdisciplinary stream: (7 full courses or their equivalent)
I. VIC $20 \mathrm{IYI}, 2 \mathrm{IOYI}, 3 \mathrm{IIHI}$ and one of $309 \mathrm{HI} / 3 \mathrm{IOHI} / 3 \mathrm{IOYI}$
2. I. 0 FCE from VIC $300 \mathrm{HI} / \mathrm{YI}, 30 \mathrm{IHI} / \mathrm{YI}, 309 \mathrm{HI} / 3 \mathrm{IOHI} /$ $3 \mathrm{IOYI}, 40 \mathrm{IHI} / \mathrm{YI}, 4 \mathrm{IOYI}, 4 \mathrm{IHI} / \mathrm{YI}, \mathrm{JNV} 300 \mathrm{HI}$
3. I. 0 FCE in a language other than English at the 200+ level
4. 2.0 FCE's in another discipline chosen in consultation with the program coordinator

## Minor program:

(4 full courses or their equivalent, including at least one 300+ level course)
Four courses from:VIC $201 \mathrm{YI}, 210 \mathrm{YI}, 300 \mathrm{HI} / \mathrm{YI}, 30 \mathrm{IHI} / \mathrm{YI}$, $309 \mathrm{HI} / 3 \mathrm{IOHI} / \mathrm{YI}, 3 \mathrm{IIHI}, 40 \mathrm{HI} / \mathrm{YI}, 4 \mathrm{IOHI} / \mathrm{YI}, 4 \mathrm{IIHI} / \mathrm{YI}$, JNV 300HI.

## Literary Studies and Philosophy (Arts program)

Consult Professor J.W. Patrick,Victoria College, or Professor R.
Comay, Department of Philosophy.

## Specialist program:

(14 full courses or their equivalent, including at least one 400 series course)
I. Major in the Interdisciplinary stream
2. Major in Philosophy
3. Normally VIC 490YI. Please consult the program coordinator for further instruction.

## Renaissance Studies (Arts program)

## Consult Professor N. Terpstra, Victoria College.

Enrolment in the Renaissance Studies program is open to students upon completion of four courses; no minimum GPA required.

## Specialist Program

(IO full courses or their equivalent, including at least three 300+ series courses and one 400-level course):
I. VIC 240 YI
2. Six additional full course equivalents from the Major program.
3. One Research Course (a 299 YI, 399 YI, or Independent Studies course on a topic in Renaissance studies approved by Program Coordinator)
4. Two full course equivalents in a language (only one may be at the introductory level).

## Major program:

(6 full courses or their equivalent, including at least two 300+ series courses)
I. VIC 440YI
2. Equivalent of two full credits from:VIC $240 \mathrm{YI}, 34 \mathrm{IHI}$, $343 \mathrm{YI}, 344 \mathrm{HI}, 345 \mathrm{HI}, 346 \mathrm{HI}, 347 \mathrm{YI}, 348 \mathrm{YI}, 349 \mathrm{HI} / \mathrm{YI}$, $449 \mathrm{HI} / \mathrm{YI}$.
3. One full course equivalent in Literature from: ENG 220YI, $243 \mathrm{Y}, 30 \mathrm{HI}, 302 \mathrm{YI}, 303 \mathrm{HI}, 304 \mathrm{YI}, 330 \mathrm{HI}, 332 \mathrm{YI}, 333 \mathrm{HI}$, $440 \mathrm{YI}, 455 \mathrm{HI}$; FRE $320 \mathrm{YI}, 359 \mathrm{HI}, 4 \mathrm{I} 9 \mathrm{HI}, 420 \mathrm{HI}$; ITA $249 \mathrm{HI}, 3 \mathrm{I} 2 \mathrm{HI}, 325 \mathrm{HI}, 332 \mathrm{HI}, 356 \mathrm{YI}, 370 \mathrm{HI} / \mathrm{YI}, 409 \mathrm{HI}$, $426 \mathrm{HI}, 470 \mathrm{HI}$; PRT 35 IHI ; SPA $352 \mathrm{HI}, 452 \mathrm{HI}, 454 \mathrm{HI}$.
4. One full course equivalent in History or Economics from: ECO 30 IYI ; HIS $243 \mathrm{HI}, 303 \mathrm{YI}, 309 \mathrm{HI}, 357 \mathrm{YI}, 362 \mathrm{HI}$, $403 \mathrm{HI}, 4 \mathrm{I} 2 \mathrm{YI}, 438 \mathrm{HI}, 44 \mathrm{IHI}, 443 \mathrm{HI} / \mathrm{YI}$.
5. One full course equivalent in Art or Music from: FAH $274 \mathrm{HI}, 277 \mathrm{HI}, 306 \mathrm{HI}, 307 \mathrm{HI} / \mathrm{YI}, 308 \mathrm{HI} / \mathrm{YI}, 324 \mathrm{HI} / \mathrm{Y}$, $325 \mathrm{YI}, 326 \mathrm{HI} / \mathrm{YI}, 332 \mathrm{YI}, 333 \mathrm{HI}, 335 \mathrm{HI}, 339 \mathrm{HI}, 34 \mathrm{IHI}$, $342 \mathrm{HI}, 352 \mathrm{YI}, 355 \mathrm{HI}, 428 \mathrm{HI}, 432 \mathrm{HI}, 438 \mathrm{HI}, 440 \mathrm{HI}$, $439 \mathrm{HI}, 442 \mathrm{HI}, 450 \mathrm{HI}$; MUS 208 HI .

## Minor program:

(4 full courses or their equivalent, including at least one 300+ series course)
I. Equivalent of two full courses from:VIC $240 \mathrm{YI}, 34 \mathrm{IHI}$, $343 \mathrm{YI}, 344 \mathrm{HI}, 345 \mathrm{HI}, 346 \mathrm{HI}, 347 \mathrm{YI}, 348 \mathrm{YI}, 349 \mathrm{HI} / \mathrm{YI}$, $440 \mathrm{YI}, 449 \mathrm{HI} / \mathrm{YI}$.
2. Two full courses from any of those listed above

## Semiotics and Communication Theory (Arts program)

Program Director, Principal D. Cook,Victoria College.
Program Coordinator, Professor M. Danesi, Victoria College.
Note: Enrolment in the Semiotics program is limited to students with a CGPA of 2.8 in at least four full courses or their equivalent. Achievement of this minimum CGPA does not guarantee enrolment in the program.

## Major program:

(7 full courses or their equivalent, including at least two $300+$ series courses)
I. One course from:ANT IOOYI, LIN IOOYI, PHL IOOYI, PHL IO2YI, SOC IOIY, RLG IOIY.
2. Three full course equivalents from:VIC $220 \mathrm{YI}, 223 \mathrm{YI}$, 320YI, 323YI.
3. Three full course equivalents from at least two different disciplines from Groups A-E.

## Minor program:

(4 full courses or their equivalent, including at least one $300+$ series course)
I. One course from:ANT I00YI, LIN I00YI, PHL IOOYI, PHL IO2YI, SOC IOIY, RLG IOIY.
2. Two full course equivalents from:VIC $220 \mathrm{YI}, 223 \mathrm{YI}, 320 \mathrm{YI}$ and 323 YI .
3. One full course equivalent from from Groups A-E.

Note: JFV 323 HI is a recommended Group E courses.

## Group A: Anthropology

ANT $204 \mathrm{YI}, 253 \mathrm{HI}, 323 \mathrm{HI} / \mathrm{Y}, 328 \mathrm{HI}, 329 \mathrm{YI}, 334 \mathrm{YI}, 35 \mathrm{HI}$, $356 \mathrm{HI}, 366 \mathrm{YI}, 425 \mathrm{HI}, 426 \mathrm{HI}, 427 \mathrm{HI}, 450 \mathrm{HI}, 46 \mathrm{HI} ; J \mathrm{AL}$ $253 \mathrm{HI}, 328 \mathrm{HI}, 355 \mathrm{HI}, 356 \mathrm{HI}$

Group B: Linguistics
LIN $200 \mathrm{HI}, 229 \mathrm{HI}, 23 \mathrm{IHI}, 232 \mathrm{HI}, 3 \mathrm{I} 5 \mathrm{HI}, 34 \mathrm{IHI}, 372 \mathrm{HI}$,

## Victoria College

$415 \mathrm{HI}, 417 \mathrm{HI}, 480 \mathrm{HI} ; J \mathrm{AL} 254 \mathrm{HI}, 328 \mathrm{HI} ; J \mathrm{LP} 306 \mathrm{HI}, 3 \mathrm{I} 5 \mathrm{HI}$, 374H I

## Group C: Philosophy

PHL $200 \mathrm{HI}, 20 \mathrm{IHI}, 220 \mathrm{HI}, 235 \mathrm{HI}, 236 \mathrm{YI}, 240 \mathrm{HI}, 243 \mathrm{HI}$, $244 \mathrm{HI}, 245 \mathrm{HI}, 250 \mathrm{HI}, 255 \mathrm{HI}, 267 \mathrm{HI}, 285 \mathrm{HI}, 288 \mathrm{HI}, 304 \mathrm{HI}$, $305 \mathrm{HI}, 306 \mathrm{HI}, 307 \mathrm{HI}, 310 \mathrm{HI}, 3 \mathrm{IIHI}, 312 \mathrm{HI}, 315 \mathrm{HI}, 316 \mathrm{HI}$, $318 \mathrm{HI}, 320 \mathrm{HI}, 32 \mathrm{IHI}, 322 \mathrm{HI}, 325 \mathrm{HI}, 326 \mathrm{HI}, 340 \mathrm{HI}, 342 \mathrm{HI}$, $346 \mathrm{HI}, 35 \mathrm{IHI}, 385 \mathrm{HI} ;$ JUP 250 YI

## Group D: Psychology

PSY $2 \mathrm{IOHI}, 220 \mathrm{HI}, 260 \mathrm{HI}, 270 \mathrm{HI}, 280 \mathrm{HI}, 300 \mathrm{HI}, 30 \mathrm{IHI}$, $3 \mathrm{IIHI}, 3 \mathrm{I} 2 \mathrm{HI}, 316 \mathrm{HI}, 320 \mathrm{HI}, 323 \mathrm{HI}, 325 \mathrm{HI}, 334 \mathrm{HI}, 362 \mathrm{HI}$, $370 \mathrm{HI}, 37 \mathrm{IHI}, 372 \mathrm{HI} ; \mathrm{JLP} 3 \mathrm{I} 5 \mathrm{HI}$

Group E: Other Related Area Courses
CLA $202 \mathrm{HI}, 203 \mathrm{HI}, 204 \mathrm{HI}, 219 \mathrm{HI}, 305 \mathrm{HI}$; DRM 200YI, $230 \mathrm{YI}, 260 \mathrm{HI}, 262 \mathrm{HI}, 264 \mathrm{HI}, 266 \mathrm{HI}$; ENG 290YI, 366YI; FAH $212 \mathrm{HI}, 214 \mathrm{HI}, 287 \mathrm{HI}, 288 \mathrm{HI}, 367 \mathrm{HI}, 378 \mathrm{HI}, 385 \mathrm{HI} ; \mathrm{VIS}$ $20 \mathrm{IHI}, 202 \mathrm{HI}, 203 \mathrm{HI}, 204 \mathrm{HI}, 205 \mathrm{HI}, 206 \mathrm{HI}, 207 \mathrm{HI}, 208 \mathrm{HI}$, $209 \mathrm{HI}, 2 \mathrm{I} 2 \mathrm{HI}, 2 \mathrm{I} 3 \mathrm{HI}, 307 \mathrm{HI}, 3 \mathrm{I} 2 \mathrm{HI}, 3 \mathrm{I} 3 \mathrm{HI}, 3 \mathrm{I} 5 \mathrm{HI}, 3 \mathrm{I} 6 \mathrm{HI} ;$ HIS $316 \mathrm{HI}, 367 \mathrm{HI}, 374 \mathrm{HI}, 375 \mathrm{HI}, 419 \mathrm{HI}$; HPS $20 \mathrm{IHI}, 202 \mathrm{HI}$, $250 \mathrm{HI}, 323 \mathrm{HI}, 324 \mathrm{HI}$; INI $2 \mathrm{I} 2 \mathrm{YI}, 2 \mathrm{I} 4 \mathrm{YI}, 225 \mathrm{YI}, 30 \mathrm{YI}, 322 \mathrm{HI}$, $323 \mathrm{YI}, 327 \mathrm{YI}, 329 \mathrm{YI}, 330 \mathrm{YI}, 423 \mathrm{HI}, 426 \mathrm{HI}, 428 \mathrm{HI}$; JFV 323 HI ; MUS $200 \mathrm{HI}, 2 \mathrm{IIHI}, 303 \mathrm{HI}$; NEW 240YI, $26 \mathrm{IYI}, 27 \mathrm{IYI}, 302 \mathrm{YI}$, $303 \mathrm{HI}, 360 \mathrm{YI}, 368 \mathrm{HI}, 37 \mathrm{HI}, 372 \mathrm{HI}$; POL 2I3Y; RLG 200YI, $210 \mathrm{YI}, 2 \mathrm{II} \mathrm{YI}, 230 \mathrm{YI}, 232 \mathrm{HI}, 233 \mathrm{HI}, 237 \mathrm{YI}, 30 \mathrm{IHI}, 302 \mathrm{HI}$, $304 \mathrm{HI}, 315 \mathrm{HI}, 380 \mathrm{HI}$; SMC $2 \mathrm{IOYI}, 402 \mathrm{HI}$; SOC $365 \mathrm{YI}, 367 \mathrm{HI}$, $38 \mathrm{IYI}, 388 \mathrm{HI}$; UNI $22 \mathrm{IHI}, 250 \mathrm{YI}, 255 \mathrm{HI}, 355 \mathrm{HI} ; \mathrm{JUM} 200 \mathrm{YI} ;$ VIC 2 IOYI, $2 \mathrm{IIYI}, 300 \mathrm{YI}, 310 \mathrm{YI}, 322 \mathrm{HI}, 343 \mathrm{YI}, 345 \mathrm{YI}, 4 \mathrm{IOY}$, 4IIYI.

## Victoria College Courses

Vic One,Vic First, Literary Studies; Renaissance Studies; Semiotics; Other.
See page 33 for Key to Course Descriptions.

## Vic One

Consult Vic One Liaison Officer, Michelle Mitrovich,Victoria College m.mitrovich@utoronto.ca

Frye/Pearson academic coordinator: Dr Anne Urbancic,Victoria College
Stowe-Gullen academic coordinator: Dr Andrew Baines,Victoria College
Egerton Ryerson academic coordinator: Dr. Sheila Cook, Victoria College

The following courses are available to students admitted to Vic One:

## Egerton Ryerson Stream

## VIC I50YI School and Society

## (formerly INXI99YI, L003I)

This course will be about the history of school and will examine the philosophical questions about the nature and purpose of learning, and also the economic or "human capital" value of education with respect to both the student and the state.
Co-requisites:VIC I5IYI and PSY 100HIY

Exclusion: INXI99YI, section L003I
This is a Social Science course.
VIC I5IYI Theories and Practices of Teaching
The course studies the history and philosophy of teaching with a view to having students develop their personal understanding of teaching. Students will be involved in a practicum.
Co-requisites:VIC I50YIY and PSY I00Y
This is a Humanities course.

## Frye Stream

## VIC 162 HI Cultural Forms and Their Meanings:

 Monuments and MemoriesA study of culture with a view to developing basic concepts with examples drawn from the visual arts, music, film, architecture, and/or local urban artifacts. We will emphasize evolving perceptions of time and space.
Co-requisites:VIC 163 HI, VIC 164 HI ,VIC $165 \mathrm{HI} \&$ JEF I00YI
This is a Humanities course

## VIC $\mathbf{1 6 3 H I}^{\text {H }}$ Cultural Forms and Their Meanings: People and Ideas

A study of culture with a view to developing basic concepts with examples drawn from the visual arts, music, film, architecture, and/or local urban artifacts. We will emphasize how contemporary thought has affected the practice of everyday life.
Co-requisites:VIC $162 \mathrm{HI}, \mathrm{VIC} 164 \mathrm{HI}, \mathrm{VIC} 165 \mathrm{HI} \& \mathrm{JEF}$ I00YI This is a Humanities course

VIC 164HI Ideas and Their Consequences: Beauty and the End of Art
A study of the ideas and concerns of creative thinkers and their impact upon cultures. The course will include scientific thinkers as well as religious figures from the major traditions. Attention will be given to modes of reasoning, cultural definition and expression. We will emphasize philosophical and artistic concepts.
Co-requisites:VIC $165 \mathrm{HI}, \mathrm{VIC}$ I62HI,VIC $163 \mathrm{HI} \& \mathrm{JEFIOOYI}$ This is a Humanities course

## VIC 165HI Ideas and Their Consequences: Isolation and Communion in Modern Culture

A study of the ideas and concerns of creative thinkers and their impact upon cultures. The course will include scientific thinkers as well as religious figures from the major traditions. Attention will be given to modes of reasoning, cultural definition and expression. We will emphasize literary and philosophical concepts in the rise of modernism.
Co-requisites:VIC $164 \mathrm{HI}, \mathrm{VIC}$ I62HI,VIC $163 \mathrm{HI} \& \mathrm{JEFIOOYI}$
This is a Humanities course

## Stowe-Gullen Stream

VIC I70YI Introduction to the Rhetoric of Science: Probability and Persuasion
How rhetoric and statistical analysis are used to communicate scientific observations and theories will be examined in seminars. Problems including the nature of evidence, risk assessment, random error and systematic error (bias) will be discussed using examples drawn from the physical, life and social sciences.
Co-requisites BIO I5OYI \&VIC I7IY
This is a Humanities or Social Science course.

## Victoria College

## VICITIYI Methodology, Theory and Ethics in the Life Sciences

An examination of scientific theories and their logic, the role in life sciences of models and mathematics, and issues in experimental design and data analysis. Particular emphasis will be placed on evolutionary theory, genomics, contemporary scientific controversies and ethical issues.
Co-requisites BIO 150 YI \& VICI70Y
This is a Humanities course.

## Pearson Stream

## VICI8IHI Events and the Public Sphere:

## World Affairs

A seminar course that examines a specific event or events in relation to the public sphere. The course will use events or an event as an entry point to discuss the nature of society including topics such as major revolutions, economic crises, the impact of the appearance of significant artistic or cultural works, and the impact of technological changes. We will emphasize recent political developments in world affairs.
Co-requisites:VICI83HI,VICI84HI,VICI85HI, and a First year
course in History or Political Science
This is a Social Science course

## VICI83HI Individuals and the Public Sphere: Shaping Memory

A seminar course that examines the contribution of an individual or individuals to the public sphere. The course will explore how public service and citizenship are developed in the context of studying the social, philosophical, cultural and scientific context of the period. Topics could include the role of law and government, civil liberties, rights and responsibilities, the role of protest. We will examine individuals who have shaped the processes by which modern memory is formed. Co-requisites:VICI8IHI,VICI84HI,VICI85HI \& a first year course in History or Political Science
This is a Social Science course.

## VICI84HI Individuals and the Public Sphere: Cultural Memory

A seminar course that examines the contribution of an individual or individuals to the public sphere. The course will explore how public service and citizenship are developed in the context of studying the social, philosophical, cultural and scientific context of the period. Topics could include the role of law and government, civil liberties, rights and responsibilities, the role of protest. We will examine our evolving role in developing cultural memory.
Co-requisites:VICI8IHI,VICI83HI,VICI85HI \& a first year course in History or Political Science
This is a Social Science course
VIC 185 HI Events in the Public Sphere: Social Justice
The course uses events or an event to discuss the nature of society including major revolutions, economic crises, and the impact of significant artistic, cultural and technological developments. Emphasis on social justice.
Co-requisites:VIC $181 \mathrm{HI}, \mathrm{VIC} 183 \mathrm{HI}, \mathrm{VIC} 184 \mathrm{HI}$ and a First year course in History or Political Science.
This is a Social Science course.

## Vic First: Pathways for First Year <br> VICIOIHI Conflict Theory and Practice 26L, I3P (formerly VICIOIYI)

The course is a general orientation toward conflict, and develops a basic understanding of essential conflict resolution principles that will complement the study of conflict theory.
The course will examine the differences between conflicts and disputes, the functions and desirability of conflict, and the conditions that facilitate conversion of conflicts from destructive to constructive.
Exclusion:VICIOIYI
Co-requisite: ECO I00Y
This is a Social Science course.

| VICI02YI | Ethics and the Public: 52L, 26P <br>  <br>  <br>  <br> (formerly VICI 82HI) |
| :--- | :--- |

This course examines a specific event, or events, in relation to the public sphere. The course will use events or an event as an entry point to discuss the nature of society including topics such as major revolutions, economic crises, the impact of the appearance of significant artistic or cultural works, and the impact of technological changes. We will emphasize case studies of recent social issues.
Co-requisite: POL I03Y/SOC IOIY
Exclusion:VICI82HI
This is either a Humanities or a Social Science course.
VIC I03YI Politics and Fine Thoughts 52L, 26P
This course examines how political ideas are formed and developed through literature, art, plays, essays and philosophical works in the twentieth century.
Co-requisite: ENG IIOY/ENG I40Y
This is either a Humanities or a Social Science course.

## VIC 104HI Common Vices and Neglected Virtues: Intro to Ethics of Character

Vice is popular: a prestigious university press has brought out a series of seven books on the Seven Deadly Sins. This course examines such questions as the following. Are greed, lust and gluttony just bad names for necessary and otherwise acceptable instincts? What is the place, in a good human life, of such qualities as honesty, trust, civility and the like? Are vices and virtues culturally determined or a matter of individual preference? Can character be taught, or is it rather a matter of genes and luck?
Co-requisite: PHL IOOY/RLG I00Y
This is a Humanities course.
VIC I05HI Image, Music, Text 26L, 26P
The course focuses on the various aspects of a culture as exhibited through the media of images, music and texts. Co-requisite: PHL I00Y/MUS IIOH
This is a Humanities course.
VICI06HI Topics in the History of Mind,
Brain and Behavioural Science
This course explores central developments and ongoing controversies in the scientific study of the human mind, brain and behavior. It examines topics such as: psychoanalysis, behaviourism, humanistic psychology, evolutionary psychology, intelligence testing, and feminist perspectives. Goals include understanding the historical evolution and social relevance of scientific psychology.

## Co-requisite: PSYIOOH

This is either a Humanities or Social Science course.

## VICI07HI Topics in the History of Evolution, 26L

 Heredity, and BehaviourA course examining the history of research and knowledge on evolution, heredity and behaviour. Topics include Darwinian evolution, the rise and development of the Mendelian theory of the gene and of molecular biology, views about instincts, and sociobiology.
Co-requisite: BIOI50Y
This is either a Humanities or Social Science course.
VICI08HI/YI Belonging, Imagination and the 26L/52L Uses of History in the Shaping of National Identity
This course will examine a number of questions related to the origins of national identities and the sustainability of nationstates. Topics covered will include: language, ethnicity, religion, politics, war, symbols, the arts, sport and public spectacle, and cuisine.
Co-requisite: HIS 106Y/SOC IOIY
This is either a Humanities or Social Science course.

## VIC IIIYI Introduction to Material 52L, 26P Culture

Objects and artifacts provide an interesting way to study culture. The presentation of objects in museums and galleries transmits cultural meaning to society. This course introduces students to material culture using the ROM, the Gardiner Museum and other established resources.
Co-requisite: ANT 100Y/FAH 101H
This is either a Humanities or a Social Science course.

## VIC II2YI Puzzles, Discovery and <br> the Human Imagination

52L, 26P
There has never been a period of time, nor has there ever been a culture, without some kind of puzzle tradition. Are puzzles just playful artifacts, intended merely to entertain? Or are they mirrors of something much more fundamental in human life? The course will take a close look at what puzzles tell us about the human mind and human culture.
Co-requisite: One of ANT $100 \mathrm{Y} / \mathrm{BIO} 150 \mathrm{Y} / \mathrm{HPS} 100 \mathrm{H}$.
This is either a Humanities or a Social Science course.
VIC II4YI Renaissance in Popular Culture 52L, 26P
This course explores the depiction of the Renaissance in a wide range of plays, films and novels. The focus is on the exchange between film, fiction, and 'fact', and on how the values and concerns of the present shape creative recreations of the past in popular culture.
Co-requisite: HIS 109Y/INI II5Y
This is a Humanities course.
VICII5YI Imagined Power: Literature and Film In this course we will study a number of literary and cinematic works that take up questions of power, duty, rights, responsibility, and freedom. Our texts will be drawn from a long history, and from many parts of the world. The sequence however will not be chronological.
Co-requisite: A 100 series Political Science course.
This is either a Humanities or Social Science course.

## VICII6YI Narrative Medical Ethics 26L, IP

A philosophical consideration through literature, articles and film as well as medical case studies to consider ethical elements of medical decision-making.
Co-requisite: BIOI50YI/PSYI00HI

## Literary Studies Courses

For Distribution Requirement purposes (see page 27), all VIC
Literary Studies courses are classified as HUMANITIES courses.
VIC20IYI Ancient and Medieval Literary 52L,26T Modes: Conventions and Continuities
Selected forms (such as epic, romance, satire, tragedy, lyric, utopia, autobiography, confession), with special attention to their roots in the Ancient and Medieval period. Texts may include selections from Aboriginal, Asian, Hebrew and Babylonian creation myths, epic narratives; history and law; drama; lyric poetry, songs and spells; philosophy and theology.
Exclusion:VICIIOYI

VIC2IOYI | Literary Studies II: Empire, 52L, 26T |  |
| :--- | :--- |
|  | Literature and Modernity |

The rise of modern European literatures in various contexts

- colonialism, humanism, literacy, nation-states, democracy,
ideology, individualism - that prompted development of new literary genres, figures, personae and filiations.
VIC300HI/YI Special Topics I: Literary
26S/52S Studies
Interdisciplinary seminar on an author or extensive work (eg. Proust's, Remembrance of Things Past, Joyce's, Finnegans Wake) or on a genre. Emphasis on literature and its relation to fine arts, philosophy, politics, history
Prerequisite:A course in Literary Studies or instructor's approval
VIC $\mathbf{3 0 I H I}$ IYI Special Topics II: Literary Studies 26s
Interdisciplinary seminar on a historical period (eg. Late
Antiquity, Romanticism, the Harlem Renaissance) or critical
event. Emphasis on literature and its relation to fine arts, philosophy, politics, history.
Prerequisite:A course in Literary Studies or instructor's approval
VIC309HI Literary Studies III:The 26L, I3T Modernist Avant Garde
(formerly VIC3IOYI)
Detailed study of a major modernist text or author(s), some of the surrounding theoretical debates, and other forms of cultural expression such as cinema, photography, collage, mass advertising, music, etc, that may be relevant.
Exclusion:VIC 310 YI

| VIC3IOHI | Literary Studies III:After 26L, I3T <br> Modernism <br> (formerly VIC3IOYI) |
| :--- | :--- |

Texts from the second half of the $20^{\text {th }}$ century and after, to foreground the reaction to modernism, and to consider the challenges to memory and representation that accompany historical crisis. Questions of language, representation, aesthetics and politics, interpretation.
Exclusion:VIC 3IOYI
VIC3IIHI Translation 26L
(formerly VIC3IIYI)
An introduction to the main questions raised by translation studies, and an examination of the relationships it has established with other disciplines such as linguistics, film studies, literary theory, philosophy, anthropology, political-economy, psychoanalysis, the hard sciences.
Exclusion:VIC3IIYI

## Victoria College

## VIC40IHI/YI Seminar in Comparative Literature

This course offers senior students in Literary Studies the opportunity to take part in a graduate seminar in Comparative Literature. Topics change annually.

## VIC4IOHI/YI Seminar in Comparative 26S/52S

Studies
For senior students enrolled in the Literary Studies program, although other students are welcome. Intensive study of general issues of poetics and critical theory, including representative literary and philosophical texts.
Prerequisite: At least one course in Literary Studies

## VIC4IIHI/YI Postmodernist Approaches

26S/52S
to Film and Literature
Study of current filmic and literary theories, with emphasis on the rhetoric of film: the concept of the trope, metaphor, metonymy, allegory, irony, repetition, and specific thematic tropes like the eye, the face, the death mask, the mirror, the dream, etc.
Prerequisite: A course in Literary Studies or Cinema Studies, or permission of the instructor.

## JNV300HI Gender, History and Literature 26S

The study of a selected group of creative writers from at least two national literatures whose texts raise issues regarding gender as either an historically or culturally variable construct. Texts will be chosen on the basis of a shared historical era, a literary genre, experience, institutional categorization, or project.
Prerequisite: One course in Literary Studies or one course in Women's Studies and Gender Studies

## Renaissance Studies Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), all VIC Renaissance Studies courses are classified as HUMANITIES courses.

## VIC240YI The Civilization of Renaissance Europe

An interdisciplinary introduction to the civilization of the Renaissance illustrated by a study of the institutions, thought, politics, society and culture of both Italy and Northern Europe. Italian city states such as Florence, Urbino and Venice, Papal Rome and despotic Milan are compared with the northern dynastic monarchies of France and England.

## VIC34IHI The Self and Society: Women, Men and Children

A study of the changing conception of the human self in the Renaissance, and of its representation by major authors: Erasmus, Rabelais, Marguerite de Navarre, Castiglione, Machiavelli and others.

## VIC342HI Women and Writing in

 the RenaissanceFocusing on writers from various geographical areas, the course examines a variety of texts by early modern women (for example, treatises, letters, and poetry) so as to explore the female experience in a literate society, with particular attention to how women constructed a gendered identity for themselves against the backdrop of the cultural debates of the time.

## VIC343YI

## Sex and Gender (formerly VIC343HI)

An interdisciplinary approach to questions of gender and sexuality in early modern Europe, with special focus on the representations of the sexual drive, the gender roles of men and women, and varieties of sexual experience in the literature and art of the period.
Exclusion:VIC343HI
VIC344HI Renaissance Narrative
(formerly VIC242HI)
Focuses on analysis of short stories and longer prose works including, in English translation: Boccaccio's stories of love, fortune and human intelligence in the Decameron; Rabelais' humorous parody of high culture in Gargantua; the tragic tale of Romeo and Juliet; and the adventures of picaresque rogues in Lazarillo de Tormes and Nashe's Unfortunate Traveler.
Exclusion:VIC242HI
VIC345HI Media and Communications in

## the Early Modern Era

This course examines the various media (printing press, representational art, music, preaching) and social and political forces (family and political networks, censorship, education, etc.) that conditioned the communication of ideas in early modern society.
VIC 346HI Orpheus in the Italian Renaissance 26 S
A study of Orpheus as portrayed in art, music, poetry, and philosophy of the Italian Renaissance.
VIC 347YI Studies in Renaissance

## Performance

Studies in the development of new musical and/or dramatic forms in the Renaissance. The course will combine seminars and lectures with a series of musical and/or dramatic performances taking place in Toronto over the course of an academic year.
Recommended preparation:VIC 240 YI, or another course in Renaissance Studies.
VIC 348YI The Renaissance in the Cities 52L An interdisciplinary course exploring the history, art, architecture, literature, and music of the Renaissance in one or more cities from ca. 1400-1650. The course will investigate how local political and social-historical contexts shape ideas and cultural forms, and so illustrate the process and effects of cross-fertilization in the Renaissance period.
Recommended preparation:VIC 240 Y , or another course in Renaissance Studies.

## VIC 349HI/YI Special Topics in <br> 26L, I3P/52L, 26P

 the RenaissanceStudies in an aspect of the Renaissance based around lectures, seminars, and readings. See annual course listing for the year's theme.
Recommended preparation:VIC 240YI, or another course in Renaissance Studies.

## VIC440YI Florence and the Renaissance 52L

An interdisciplinary seminar on Florence in the 15th and 16th centuries: humanism, culture and society in the republican period, the rise of the Medici, Florentine neoplatonism, the establishment of the Medici principate, culture, society and religion.
Prerequisite:VIC 240 Y I or permission of instructor

## VIC 449HI/YI Advanced Seminar <br> 26L, I3P/52L, 26P in the Renaissance

An in-depth study in an aspect of the Renaissance based around lectures, seminars, and readings. Content in any given year depends on instructor. See annual course listing for the year's theme.
Recommended preparation:VIC 240YI, or another course in
Renaissance Studies.

## Semiotics Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), all VIC
Semiotics courses are classified as SOCIAL SCIENCE courses.

## VIC220YI Post-Structuralism/ 52L, 26T

## Post-Modernism

Studies the international culture emerging in media and literature and examines recent communication theory as it applies to literary, social and cultural issues.
Prerequisite: One course from:ANT IOOYI, LIN IOOYI, PHL
IOOYI, PHL I02YI, SOC IOIY, RLG IOIY.
VIC 223YI Signs, Meanings, and Culture 52L, 26P
This course will introduce the main elements of semiotic theory, applying it to the study of human culture, from language, myth, and art to popular forms of culture such as pop music and cinema. It will deal with primary texts in the development of semiotics, and cover a broad range of cultural applications of semiotic theory. Prerequisite: One course from:ANTI00YI, LIN IOOYI, PHL

IOOYI, PHL IO2Y, SOCIOOYI, RLG IOIY.
Exclusion:Vic I20YI

## VIC320YI Semiotics of Visual Art 52L, 26T

Theories and models of applied semiotics: analysis of sign systems as articulated in various forms of artistic and cultural production. Prerequisite:VIC I20YI/VIC223YI,VIC 220YI

## VIC 322HI Topics in Semiotics <br> 26S

An in-depth examination of some aspect of Semiotic theory or practice. Content in any given year depends on instructor. Not offered every year.
Prerequisite:VIC I20YI/VIC 223YI,VIC 220YI.

## JFV323HI Semiotics and Literature <br> 26S

The study of readings from major French literary semioticians will be combined with the practical application of theory to the analysis of selected literary texts. (Given by the Department of French and Victoria College)
Prerequisite: At least 5 course credits in any subject.
Exclusion(s): FRE $444 \mathrm{HI} / 445 \mathrm{HI}$
Recommended Preparation: FRE240YI/VIC I20YI/VIC 223YI
This is a humanities or social science course.
$\begin{array}{ll}\text { VIC 323YI } & \begin{array}{l}\text { Sign, Culture and History } \\ \text { (formerly VIC420YI) }\end{array}\end{array}$
Theories of signification studied with a focus on major works in the semiotics of modern and contemporary culture.
Prerequisite:ANT 323YI,VIC I20YI/VIC 223YI,VIC
220YI/22IYI/VIC 320YI.
Exclusion:VIC420YI

## Concurrent Teacher Education Program (CTEP) Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27),VIC CTEP courses are classified in various ways; see individual course descriptions for classification.

## VIC260HI Child and Adolescent Development 26L in Education

This course examines how children and adolescents develop and explores how best to facilitate their growth and learning in the area of education. Major topics include cognitive, emotional, social, moral, physical and language development. Themes addressed include interpersonal relationships such as pro-social and aggressive behaviour, as well as the influence of schooling, family life and culture. This course includes a 20 -hour field experience located in a school and entails observation of development across the various age groups. This may be satisfied by participation in Vic Reach or in another organization with the approval of the CTEP Vic Coordinator.
Exclusion: SMC27IHI
This is a Science or Social Science course.
VIC26IHI Equity and Diversity in Education 26L This course focusses on raising awareness and sensitivity to equity and diversity issues facing teachers and students in diverse schools and cultural communities. It builds knowledge of how oppression works and how cultural resources and educational practices may be brought to bear on reducing oppression and improving equity.This course's field experience entails observation of and participation in equity and diversity efforts in a culturally-rooted school and/or community organization.
Exclusion: SMC272HI
This is a Social Science course.
JSV262HI Communication and Conflict 26L

## Resolution

The purpose of this course is to provide knowledge and skill acquisition in the areas of interpersonal conflict resolution and communication.
This is a Social Science course.
VIC360HI CTEP Internship
TBA
Students are required to complete an internship in an educational or community source environment. This may be satisfied by participation in Vic Reach or in another organization with the approval of the CTEP Vic Coordinator. Written assessment of the internship will be required.
This is a Social Science course.

## Other Victoria College Courses

VIC299YI Research Opportunity Program
Credit course for supervised participation in faculty research project. See page 47 for details.

## VIC350YI Creative Writing: A

 52S
## Multicultural Approach

Practice and instruction in writing poetry and fiction, paired with study of literature and theory introducing the multicultural richness of contemporary English writing. Approximately threequarters of class periods are workshops, one-quarter lecture

## Victoria College

discussions. Work by many writers from contemporary and traditional literatures are read in English translation.
Prerequisite: four credits
This is a Humanities course
VIC 35 IHI Learning Communities and

## Higher Education in Canada

This course examines the evolution of higher education in Canada. Using Victoria University and Victoria's affiliates as a case study, the course explores the intersection of gender, race, class and religion. Comparisons are made with other denominational and secular institutions in the context of late nineteenth and early twentieth century education. International contexts of education through student service and missions are discussed.

| VIC390YI/ | Victoria College | TBA |
| :--- | :--- | :--- |
| 391 HI | Independent Studies |  |
| VIC490YI/ | Victoria College | TBA |
| 491 HI | Independent Studies |  |

These courses provide an opportunity to design an
interdisciplinary course of study not otherwise available within the Faculty. Written application (detailed proposal, reading list and a letter of support from a Victoria College faculty member who is prepared to supervise) must be made through the Program Director for approval by Victoria College Council's Academic Advisory Committee by April 30 for a Fall course or by November 30 for a Spring course. Students should have a minimum CGPA of 3.

Prerequisite: Permission of College Program Director

## Women and Gender Studies

## Faculty

## Professors

E.K. Armatage, BA, MA, PhD
J. Alexander, BSW, MA, PhD
S. Mojab, BA, MEd, PhD
K.P. Morgan, BA, MA, MEd, PhD

## Associate Professors

B. McElhinny, BA, PhD
M. Murphy, BA, PhD
M. Nyquist, BA, MA, PhD
K. Rittich, Mus Bac, LLM, SJD
A. Trotz, BA, MPhil, PhD

## Assistant Professors

A. Tambe, BA, MA, PhD
J. Taylor, BA, MA, PhD

## Senior Lecturers

J. Larkin, BA, MEd, PhD

Women and Gender Studies provides an interdisciplinary and culturally inclusive approach to gender that critiques, interrogates and expands the parameters of traditional disciplines.

Students in the Undergraduate Program in Women and Gender Studies (UWGS) have access to a wide range of courses in a rapidly developing, intellectually challenging field. The program offers integrated, interdisciplinary courses that reflect the cuttingedge research of our core and cross-listed faculty as well as the most current national and international Women and Gender Studies scholarship.

Students are also offered a wide range of support services through annual events such as the career workshop, the one-day student workshop, the International Women's Day celebration, and community and research seminars which are designed for students who will be working in fields related to Women and Gender Studies.

The Undergraduate Program in Women and Gender Studies seeks to inform and transform traditional forms of knowledge and provides a physical and intellectual space to conduct anti-racist feminist scholarship.

Undergraduate Coordinator: Dr. J. Larkin, New College, Room 3034 (416-978-8282).

Undergraduate Administrator: Marian Reed, New College, Room 2036 (416-978-3668).

Enquiries: (416-978-3668)
Email: grad.womenstudies@utoronto.ca
Web site: www.utoronto.ca/wgsi

## Women and Gender Studies Programs

## Women and Gender Studies (Arts Program)

## Specialist program:

(I0 full courses or their equivalent, including at least five full 300+ series courses and at least one course at the 400-level)
I. WGSI60YI
2. WGS262YI
3. WGS460YI and one additional full-course equivalent at the 400+ level
4. Four additional full-course equivalents from the core group below
5. Two additional full-course equivalents from Group A or B

## Major program:

(7 full courses or their equivalent, including at least three full 300+ series courses)
I. WGSI60YI

WGS262YI
3. Three additional full-course equivalents from the core group below
4. Two additional full-course equivalents from Group A or B

## Minor program:

(4 full courses or their equivalent, including at least one full 300+ series course)
I. WGSI60YI and/or WGS26IYI
2. Two (with both WGSI60YI and WGS26IYI) or three (with only one of WGSI60YI or WGS26IYI) additional full-course equivalents from the core group below or from Group $A$

## Core Group:

WGSI6OYI,WGS26IYI,WGS262YI,WGS27IYI,WGS330HI$339 \mathrm{HI}, W G S 362 \mathrm{HI}, W G S 363 \mathrm{HI}, W G S 365 \mathrm{HI}, W G S 366 \mathrm{HI}$, WGS367HI,WGS368HI,WGS369YI,WGS372HI,WGS373HI, WGS374HI,WGS375HI,WGS380HI, JNV300HI,WGS425YI, WGS434HI,WGS435HI,WGS440HI,WGS445HI,WGS45IHI, WGS460YI,WGS46IYI,WGS462HI,WGS463HI,WGS465HI, WGS470YI

Group A: (Women and gender relations)
ANT343YI,ANT460HI; CLA219HI, CLA220HI; EAS303HI, EAS452HI, EAS 453 HI ; ENG233YI, ENG307HI, ENG355HI, FAH425HI,, FCS497HI; FRE304HI, FRE404HI; GER42IHII; GGR327HI; HIS202HI, HIS245YI, HIS306HI, HIS354YI, HIS363HI, HIS366YI, HIS383HI, HIS4I8HI, HIS43IHI, HIS446YI, HIS $448 \mathrm{HI}, \mathrm{HIS} 48 \mathrm{IHI}, \mathrm{HIS} 483 \mathrm{HI} ;$ ITA $455 \mathrm{HI} ; J A L 355 \mathrm{HI} ; \mathrm{JHP} 440 \mathrm{Y}$; JPP343YI; NEW240YI, NEW325HI; NMC284HI, NMC484HI; PHL243HI, PHL267HI; POL3I5HI, POL344HI, POL432YI, POL35IYI, POL450HI, POL480HI; PSY323HI; RLG 236HI, RLG237HI, RLG3I3HI, RLG3I4HI, RLG3I5HI; SLA 248HI, SLA 453 HI ; SOC 365 YI, SOC 366 HI, SOC $367 \mathrm{HI}, ~ S O C 383 \mathrm{HI}$; SPA $382 \mathrm{HI} ; \mathrm{VIC} 34 \mathrm{HI}, \mathrm{VIC} 343 \mathrm{YI}, \mathrm{VIS} 209 \mathrm{HI}$

## Group B: (General interest)

ANT329YI,ANT342HI,ANT427HI; EAS462HI, ENG273YI, ENG290YI; FCS395HI; GGR362HI, GGR363HI; HIS34IYI, 459HI; INI 327YI; ITA493HI; NEW302YI, NEW424YI; NMC276YI; PHE 403HI; PHL28IYI, PHL384HI;PRT35IHI; SOC207YI, SOC2I4YI, SOC2I5HI, SOC220YI, SOC375YI; SPA380HI;TRN3IIHI,TRN320YI; UNI255HI, UNI354HI, UNI355HI, UNI37IHI;VIC2IOYI;VIS3IOHI

## Women and Gender Studies

## Women and Gender Studies Courses

For Distribution Requirement purposes (see page 27) all WGS courses are classified as Humanities courses exceptWGS26IYI and 425 YI, which are Social Science courses.

## 100-Series Courses

During the first round of enrolment,WGSI60YI is subject to certain enrolment restructions. Please refer to the 2006-2007 Registration Handbook \& Timetable.

## WGSI60YI Introduction to Women and 52L, 26T Gender Studies (formerly NEW260YI)

An integrated and historical approach to social relations of gender, race, class, sexuality and disability, particularly as they relate to women's lives and struggles across different locales, including Canada.
Exclusion: NEW260YI/WGS260YI

## 200-Series Courses

During the course enrolment period,WGS262YI is subject to certain enrolment restrictions. Please refer to the 2007-2008 Registration Handbook \& Timetable.

WGS26IYI | Scientific Constructions of 52L, 26T |
| :--- |
| Sex and Gender |

Critically examines how the scientific construction of sex
and gender in the context of race, class and nation have both
reinforced and challenged racial hierarchies, colonialism and the
formation of academic disciplines such as psychology, anthropology
and biology. and biology.
This is a Social Science course
WGS262YI Texts, Theories, Histories 52L, 26T
Examines modes of theories that shaped feminist thought and situates them historically and transnationally so as to emphasize the social conditions and conflicts in which ideas and politics arise, change and circulate.
Prerequisite: NEWI60YI/WGSI60YI

## WGS27IYI Gender, Race and Class in Contemporary Popular Culture (formerly NEW37IHI)

26L

A critical examination of institutions, representations and practices associated with contemporary popular culture, mass-produced, local and alternative.
Exclusion: NEW37IHI

## 300-Series Courses

During the first round of enrolment, 300-Series Courses are subject to certain enrolment restrictions. Please refer to the 20062007 Registration Handbook \& Timetable.

## Note:

Courses numbered WGS330HI-339HI are reserved for Special Topics in Women and Gender Studies offered each year by visiting scholars. Topics will change according to the interests of the instructor.

WGS330HI/ Special Topic in Women and
334HI/ Gender Studies
335HI
An upper level seminar. Subjects of study vary from year to year.
Recommended preparation: NEWI60YI/WGSI60YI/NEW26IYI/ WGS26IYI

WGS336HI Selected Topics in Cultural Studies 26L
An upper level course. Topics vary from year to year.
Prerequisite: NEWI60YI/WGSI60YI/NEW26IYI/WGS26IYI
WGS362HI Selected Topics in Gender 26S and History
An upper level seminar. Subjects of study vary from year to year. Prerequisite: NEWI60YI/WGSI60YI/NEW26IYI/WGS26IYI

WGS363HI Selected Topics in Gender and Theory
An upper level seminar. Subjects of study vary from year to year. Prerequisite: NEWI60YI/WGSI60YI/NEW26IYI/WGS26IYI

WGS365HI Gender Issues in the Law
26L
Examines the operation of the law as it affects women, the construction and representation of women within the legal system, and the scope for feminist and intersectional analyses of law.
Recommended preparation: NEWI60YI/WGSI60YI/NEW26IYI/ WGS26IYI

WGS366HI Gender and Disability
26L
A critical interdisciplinary investigation of how gender impacts on central topics in disability studies: ableism as a political ideology; the normalized body and cultural representations; sexuality, violence and nurturance relations; the cognitive and social roles of medicine; transnational perspectives on disability, disability rights and issues of social justice.
Prerequisite: NEWI60YI/WGSI60YI/NEW26IYI/WGS26IYI/ NEW27IYI/WGS27IYI/NEW367HI/WGS367HI
Recommended preparation:WGS240YI/WGS372HI/WGS374HI/ PHL384HI/POL3I5HI/POL344YI/ SOC $373 \mathrm{HI} / \mathrm{SOC} 374 \mathrm{HI} /$ UNI $255 \mathrm{HI} / 355 \mathrm{HI}$

WGS367HI The Politics of Gender 26L, I3T and Health
Explores critical and transnational debates on biomedical and indigenous health traditions. Topics explored may include the politics of social suffering and trauma, spirit possession, disabilities, environmental health, organ donation, homelessness and reproduction.
Recommended preparation: NEWI60YI/WGSI60YI/NEW26IYI/ WGS26IYI

WGS368HI Gender and Cultural Difference: 26L Transnational Perspectives (formerly NEW368YI)
Explores the ways in which gendered constructions of cultural identity and difference are implicated in local and transnational political projects, including feminism. Challenges colonialist stereotypes of women as exotic or "victims of culture".
Prerequisite: NEWI60YI/WGSI60YI/NEW26IYI/WGS26IYI/ permission of the instructor
Exclusion: NEW368YI
WGS369HI Studies in Post-Colonialism
liberatory and neoconservative discourses as inscribed in literary texts, historical documents, cultural artifacts and mass media.
Prerequisite: NEWI60YI/WGSI60YI/NEW26IYI/WGS26IYI/
permission of the instructor
Exclusion: NEW369HI
WGS372HI $\begin{aligned} & \text { Women and Psychologyl } \\ & \text { Psychoanalysis }\end{aligned}$
An interdisciplinary analysis of the relationship of women to a variety of psychological and psychoanalytical theories and practices. Topics may include women and the psychological establishment; women's mental health issues; feminist approaches to psychoanalysis.
Prerequisite: NEWI60YI/WGSI60YI/NEW26IYI/WGS26IYI/ permission of the instructor

## WGS373HI Gender and Violence

26L
An interdisciplinary study of gendered violence in both historical and contemporary contexts including topics such as textual and visual representations; legal and theoretical analyses; structural violence; war and militarization; sexual violence; and resistance and community mobilization.
Prerequisite: NEWI60YI/WGSI60YI/NEW26IYI/WGS26IYI/ permission of the instructor

WGS374HI Feminist Studies in Sexuality 26L
Sexual agency as understood and enacted by women in diverse cultural and historical contexts. An exploration of the ways in which women have theorized and experienced sexual expectations, practices and identities.
Prerequisite: NEWI60YI/WGSI60YI

## WGS375HI Colonialism, Sexuality, Spirituality and the Law

26L

This course examines the challenge indigenous knowledges posed to colonialism by analyzing Spanish and British legal codes. Focusing on the links between sexuality and spirituality, we explore how gender shaped the social dynamics of conquest and resistance and draw out the implications for contemporary colonialisms.
Prerequisite: NEWI60YI/WGSI60YI/NEW26IYI/WGS26IYI

## WGS380HI Aboriginal, Black and Immigrant

26L Women in the Land of Dollars
Examines the gendered effects of white settler colonization on/in $21^{\text {st }}$ Century Canada and traces the formation of multiple settlements by examining black and immigrant populations. The course poses a challenge to contemporary formulations of diaspora and multiculturalism. It examines solidarity movements within and across these three communities.
Prerequisite: NEWI60YI/WGSI60YI/NEW26IYI/WGS26IYI

## JNV 300HI Gender, History and Literature 26L

The study of a selected group of creative writers from at least two national literatures whose texts raise issues regarding gender as either an historically or culturally variable construct. Texts will be chosen on the basis of a shared historical era, a literary genre, experience, institutional categorization, or project.
Prerequisite: One course in Literary Studies or one course in Women and Gender Studies

## 400-Series Courses

Students wishing to enrol in 400-Series courses must fill out a ballot form available from the Women and Gender Studies Program Office, Room 2036, Wilson Hall, New College, 40 Willcocks St. This form must be signed and approved by both the course instructor and the Undergraduate Coordinator for the Women and Gender Studies Program. Students cannot enrol in 400-Series courses on ROSI.

## WGS425YI Women and Issues of International 52S

 DevelopmentProvides a gender analysis of the political economy of development and globalization, and a critical overview of related feminist theoretical, policy, and strategy debates. Issues explored include feminisation of labour, gender mainstreaming, trafficking in women, poverty-alleviation strategies, and transnational feminist organizing. Recommended Preparation: NEWI60YI/WGSI60YI, POL20IYI
or another course addressing development issues, and a half
course at the 300+ level in Women and Gender Studies.
This is a Social Science course
WGS434HI/ Advanced Topics in Women and 26S 435HI Gender Studies
An upper level seminar. Topics vary from year to year depending on instructor.
Recommended preparation: NEWI60YI/WGSI60YI and one full course at the 300+ level in Women and Gender Studies
WGS440HI Gender and the Sacred
This course examines how gender illuminates the sacred by focusing upon the forces of nature within the Vodou and Yoruba cosmological systems. We will explore how these sacred knowledges disturb the secular parameters of feminism through close attention to the conceptual and ceremonial practices among practitioners in the diaspora.
Prerequisite: NEWI60YI/WGSI60YI/NEW26IYI/WGS26IYI
and one full course at the 300+ level in Women and Gender Studies.
Exclusion: NEW435HI/WGS435HI, winter session 2005.

## WGS445HI Migrations of the Sacred

 26SConsiders the gendered impact of migration on women's indigenous spiritual practices, taking globalization as a political economic starting point. The course focuses on the lives of women whose experiences emblematize displacement and examines how women's agency interrupts and transforms normative meanings of 'tradition' and "modernity.'
Prerequisite: NEWI60YI/WGSI60YI/NEW26IYI/WGS26IYI and one full course at the 300+ level in Women and Gender Studies
WGS45IHI Independent Study in Women and TBA Gender Studies Issues
Under supervision, students pursue topics in Women and Gender Studies not currently part of the curriculum.
Prerequisite: Permission of the Undergraduate Coordinator, Women and Gender Studies Program

## Women and Gender Studies

## WGS460YI Advanced Research Seminar in TBA Women and Gender Studies

Supervised individual research project undertaken in Third or Fourth year. Students attend a seminar to discuss research methods and findings. A required course for Specialist students.
Prerequisite: Permission of the Undergraduate Coordinator,
Women and Gender Studies Program
Recommended Preparation: NEWI60YI/WGSI60YI and one full course at the 300+/400+ level in Women and Gender Studies.

WGS46IYI Advanced Topics in Women and 52 S Gender Studies
An upper level seminar. Topics vary from year to year depending on the instructor.
Prerequisite: NEWI60YI/WGSI60YI and a half course at the 300+ level in Women and Gender Studies

WGS462HI Advanced Topics in Gender and History26S
An upper-level seminar. Topics vary from year to year depending on instructor.
Prerequisite: NEWI60YI/WGSI60YI and one full course at the 300+ level in Women and Gender Studies

WGS463HI Advanced Topics in Gender Theory 26S
Senior students may pursue more advanced study in feminist theory. Topics vary from year to year depending on instructor. Prerequisite: NEWI60YI/WGSI60YI and one full course at the 300+ level in Women and Gender Studies
WGS465HI Special Topics in Gender 26S and the Law
Senior students may pursue advanced study in gender and law.
Topics vary from year to year.
Prerequisite: NEWI60YI/WGSI60YI, NEW365HI/WGS365HI, or permission of the instructor
WGS470YI Women and Gender Studies 52S

## Practicum

The application of theoretical study to practical community experience. Advanced Women and Gender Studies students have the opportunity to apply knowledge acquired in the Women and Gender Studies curriculum through a practicum placement within a community organization.
Prerequisite: NEWI60YI/WGSI60YI and at least one full course at the 300+/400+ level in Women and Gender Studies.

## Woodsworth College

## Faculty

## Professors

A.N. Doob, AB, Ph D
R.V. Ericson, MA, PhD, Litt.D., FRSC
R. Gartner, MS, PhD
F.J. Reid, M Sc, Ph D
M. Valverde, MA, Ph D, FRSC

## Associate Professors

J.W. Browne, MA
S. Wortley, MA, Ph D

Assistant Professors
R. Levi, BCL, LLB, LLM, SJD
W.Watson, BSc, PhD

## Senior Lecturers

W.B. MacDonald, BA, MA
J.B. Rose, BA, MA
T.P. Socknat, BAE, MA, PhD

## Lecturer

L. Riznek, MA, PhD

## Adjunct Professors

R.F. Barnhorst, BA, LLB, JSD
B. Davies, BA, MA, LLB

Woodsworth College sponsors programs in two areas Criminology and Employment Relations. The specialist and major programs in Criminology provide students with a foundation to begin the study of crime and the administration of the Canadian criminal justice system. The programs in Criminology may be combined with programs in Political Science, Psychology or Sociology.

The specialist and major programs in Employment Relations provide students with the opportunity to study the employment relationship in a Canadian context, from the perspectives of a number of disciplines such as economics, history, law, management, political science, and sociology. Students enrolled in the Criminology and Employment Relations programs are given priority when registering in WDW courses.

Enquiries: Program Office,Woodsworth College, Room 236 (416-978-5783), or at www.wdw.utoronto.ca.

## Woodsworth College Programs

## Criminology (Arts program)

Consult Program Office,Woodsworth College.
Enrolment in the specialist program is limited. Students apply during the spring term of the year in which they complete either eight full credit courses or twelve full credit courses. Students applying after eight full credit courses must have obtained an average of at least $80 \%$ in WDW 200 YI and 220 Y I combined, and have a CGPA of at least 3.0.

Students applying after twelve full credit courses must have obtained an average of at least $80 \%$ in WDW 200YI and 220 Y I and two additional full WDW Criminology credits, and have a CGPA of at least 3.0. Meeting the minimum requirements may not guarantee admission.

## Specialist program:

( 10 full courses or their equivalent, including at least four 300+ series courses, one of which must be a 400 -series course)
I. One 100 -series full course equivalent chosen from the following list: ECO/HIS/PHL/POL/SOC
2. WDW 200YI, 220YI
3. WDW $300 \mathrm{HI}, 320 \mathrm{HI}, 335 \mathrm{HI}, 340 \mathrm{HI}, 350 \mathrm{YI}$
4. One full credit from:WDW $3 \mathrm{IOHI}, 360 \mathrm{HI}, 365 \mathrm{HI}, 370 \mathrm{HI}$, $375 \mathrm{HI}, 380 \mathrm{HI}, 385 \mathrm{HI}, 387 \mathrm{HI}, 388 \mathrm{HI}, 389 \mathrm{YO}, 390 \mathrm{HI}$, $39 \mathrm{IHI}, 392 \mathrm{HI}, 393 \mathrm{HI}, 394 \mathrm{HI}, 395 \mathrm{HI}, 396 \mathrm{HI}, 397 \mathrm{YI}$, 450 HI
5. One full credit from:WDW $400 \mathrm{HI}, 405 \mathrm{HI}, 4 \mathrm{I} 0 \mathrm{HI}, 4 \mathrm{I} 5 \mathrm{HI}$, $420 \mathrm{HI}, 435 \mathrm{HI}, 440 \mathrm{HI}, 480 \mathrm{HI}$
6. Two full credits from: HIS $332 \mathrm{HI}, 355 \mathrm{HI} ; \mathrm{PHL} 27 \mathrm{IHI}$, $370 \mathrm{HI} ;$ POL $332 \mathrm{YI} ;$ PSY $20 \mathrm{IHI}, 202 \mathrm{HI}, 220 \mathrm{HI}, 240 \mathrm{HI}$, 328 HI ; SOC $212 \mathrm{YI}, 213 \mathrm{YI}, 306 \mathrm{YI}, 358 \mathrm{HI}$;TRN 305 YI ; or additional courses from Group 4 or 5 above

## Major program:

(7 full courses or their equivalent, including at least two 300+ series courses)
Enrolment in the major program is limited to students with a CGPA of at least 2.50 who have completed four or more full credits, including one of the courses specified under $I$. below. Meeting the minimum requirements may not guarantee admission.
I. One 100 -series full course equivalent chosen from the following list: ECO/HIS/PHL/POL/SOC
2. WDW 200YI, 220YI
3. Two full credits from:WDW $300 \mathrm{HI}, 310 \mathrm{HI}, 320 \mathrm{HI}, 335 \mathrm{HI}$, $340 \mathrm{HI}, 350 \mathrm{YI}, 360 \mathrm{HI}, 365 \mathrm{HI}, 370 \mathrm{HI}, 375 \mathrm{HI}, 380 \mathrm{HI}$, $385 \mathrm{HI}, 387 \mathrm{HI}, 388 \mathrm{HI}, 389 \mathrm{Y}, 390 \mathrm{HI}, 39 \mathrm{HI}, 392 \mathrm{HI}$, $393 \mathrm{HI}, 394 \mathrm{HI}, 395 \mathrm{HI}, 396 \mathrm{HI}, 397 \mathrm{YI}, 400 \mathrm{HI}, 405 \mathrm{HI}$, $420 \mathrm{HI}, 480 \mathrm{HI}$
4. Two full credits from: HIS $332 \mathrm{HI}, 355 \mathrm{HI}$; PHL 27 HI , 370 HI ; POL 332 YI ; PSY $20 \mathrm{IHI}, 202 \mathrm{HI}, 220 \mathrm{HI}, 240 \mathrm{HI}$, 328 HI ; SOC $200 \mathrm{YI}, 200 \mathrm{HI}, 202 \mathrm{HI}, 2 \mathrm{I} 2 \mathrm{YI}, 2 \mathrm{I} 3 \mathrm{YI}, 306 \mathrm{YI}$, 358 HI ;TRN 305 YI ; or additional courses from Group 3 above

## Employment Relations (Arts program)

## Consult Program Office,Woodsworth College.

Enrolment in the specialist program is limited to students with a CGPA of at least 2.50 who have completed four or more full credits, including ECO $100 \mathrm{YI}(67 \%) / 105 \mathrm{YI}(80 \%)$ and SOC IOIYI. Meeting the minimum requirements may not guarantee admission.

## Specialist program:

(IO full courses or their equivalent including at least four courses at the $300+$ level)
. ECO I00YI/I05YI;SOC IOIYI
WDW244HI, 260HI
. ECO $239 \mathrm{YI} / 339 \mathrm{YI} ; \mathrm{HIS} 313 \mathrm{HI}$
4. One full course equivalent from: ECO 220 YI ; PSY ( 20 IHI and 202 HI$)$; SOC $200 \mathrm{YI} /(200 \mathrm{HI}$ and 202 HI$)$
5. One full course from: ECO 32 IYI ; HIS 263 YI ; POL IO3YI, 214 YI
6. Two full course equivalents from: MGT $120 \mathrm{HI}, 223 \mathrm{HI}$; SOC $207 \mathrm{YI}, 3 \mathrm{I} 7 \mathrm{YI}, 339 \mathrm{HI}, 367 \mathrm{HI}, 370 \mathrm{YI}, 375 \mathrm{YI} ; W D W 344 \mathrm{HI}$, $345 \mathrm{HI}, 346 \mathrm{HI}, 347 \mathrm{HI}, 348 \mathrm{HI}, 349 \mathrm{HI}, 367 \mathrm{HI}, 378 \mathrm{HI}$, 396HI, 397YI
7. MGT $460 \mathrm{HI} ; \mathrm{WDW} 430 \mathrm{YI}$

## Major program:

(7 full courses or their equivalent including at least two at the $300+$ level)

Enrolment in the major program is limited to students with a CGPA of at least 2.30 who have completed four or more full credits, including ECO IOOYI/I05YI and SOC IOIYI. Meeting the minimum requirements may not guarantee admission.
. ECO I00YI/I05YI;SOC IOIYI
2. WDW $244 \mathrm{HI}, 260 \mathrm{HI}$
3. Two and a half credits, including at least one-half credit at the $300+$ level from: ECO $239 \mathrm{YI} / 339 \mathrm{YI} ; \mathrm{HIS} 3 \mathrm{I} 3 \mathrm{HI} ;$ MGT $120 \mathrm{HI}, 223 \mathrm{HI}$; SOC 207YI, 3I7YI, $339 \mathrm{HI}, 367 \mathrm{HI}, 370 \mathrm{YI}$, $375 \mathrm{YI} ; W D W 344 \mathrm{HI}, 345 \mathrm{HI}, 346 \mathrm{HI}, 347 \mathrm{HI}, 348 \mathrm{HI}$, $349 \mathrm{HI}, 367 \mathrm{HI}, 378 \mathrm{HI}, 396 \mathrm{HI}, 397 \mathrm{YI}$
4. MGT 460 HI ;WDW 430 YI

## Woodsworth College Courses

See page 33 for Key to Course Descriptions.
For Distribution Requirement purposes (see page 27), all WDW courses are classified as SOCIAL SCIENCE courses.

## Criminology Courses

For all WDW Criminology courses, students must be enrolled in the Specialist or Major Program in Criminology.

WDW200YI Introduction to Criminology 52L, 26T
The nature of crime and the Canadian system designed to control it. Introduction to major approaches to understanding crime and the development of criminal law, significant research on crime and the criminal justice system, laws and procedures related to crime and crime control in Canada. Not open to first year students.
Prerequisites: Four full credits including one full credit in ECO/ HIS/ PHL/POL/SOC, and a CGPA of 2.5

## WDW220YI Introduction to Criminal 52L, 26T Law and Procedure

An introduction to criminal law and the criminal process. The essential elements of criminal liability, including defences to criminal charges, the general characteristics of offences against the person, sexual offences, regulatory offences, and 'victimless offences.' The criminal process, from investigation to sentencing, and the implications of the Charter of Rights for both substantive criminal law and criminal procedure.
Co- or Prerequisite:WDW200YI

## WDW300HI Crime:Theory and Policy

Major social and political theories of crime, law and justice, and their implications for policy development in the criminal justice system. The origins of central ideas that influence criminological theory and policy, seen in an historical context. Students are encouraged to develop the analytical skills needed to think critically about criminal justice policy.
Prerequisite: An average of at least 70\% in WDW200YI and
220YI combined, and a CGPA of 2.5 .
WDW3IOHI Crime and Society in 39L Canadian History
Criminal justice history in the context of Canada's social, political and economic development from the 18th to the 20th centuries. Topics covered include: colonization and resistance,
gender and sexuality, policing and punishment, and the
development of criminal law.
Prerequisite:WDW200YI, 220YI

## WDW320HI The Prosecution Process 39L

The historical evolution of the modern prosecution system.
The exercise of discretion, and accountability for prosecutorial decision-making, recent adaptations and alternatives to the existing prosecution process, including current concepts of diversion, 'reintegrative shaming' and 'restorative justice.'

## Prerequisite:WDW200YI, 220YI

## WDW335HI Policing

A theoretical framework is developed to examine the nature of policing, its structure and function. Attention is given to the history of policing and to its public and private forms. An examination of the objectives and domain, as well as the strategies, powers, and authority of contemporary policing; including decision-making, wrong-doing, accountability, and the decentralization of policing.
Prerequisite:WDW200YI, 220YI

## WDW340HI Penology

The study of punishment from historical and philosophical perspectives, with a focus on contemporary Canadian policy issues. Topics covered include penal theory, prisons and noncarceral forms of punishment, and the goals of penal reform. Prerequisite:WDW200YI, 220YI

## WDW350YI Research Methods in 52L, 26T Criminology

An introduction to social science research methods used by criminologists. An understanding of the strengths and weaknesses of published criminological research is developed. Specific technical issues of sampling, measurement and statistics are taught in the context of examining alternative ways of answering research questions.
Exclusion: SOC200YI, $200 \mathrm{HI}, 202 \mathrm{HI}$
Prerequisite: An average of at least $70 \%$ in WDW200YI and 220YI combined, and a CGPA of 2.5.

WDW360HI Law and Psychiatry 39L
The increasing involvement of psychiatrists and other mental health professionals in the criminal justice system over the past 150 years, including contemporary Canadian practices. Emphasis is placed on understanding and evaluating competing interpretations of this phenomenon.
Prerequisite:WDW200YI, 220YI
WDW365HI Crime and Mind 39L
Legal, psychological and sociological understandings of issues in the criminal justice system, through a consideration of topics including: criminal intent, the insanity defence, the concept of 'psychopathy', the use of 'battered woman syndrome' as part of a self-defence, issues of transcultural psychiatry, and jury screening for bias.
Prerequisite:WDW200YI, 220YI
WDW370HI Youth Justice 39L
Administration of the youth justice system in Canada. The Youth Criminal Justice Act provides a legal framework for considering individual rights, the protection of society, and the welfare of young people. An analysis of legal principles and practices at various stages in the youth justice process. Policy issues and proposals for reform.
Prerequisite:WDW200YI, 220YI

## WDW375HI Young Offenders

39 L
Historical and contemporary definitions of illegal conduct by young persons. The nature and extent of youth crime, and an analysis of theories which attempt to explain it. Assessment of the effectiveness of treatment and other strategies for preventing and responding to youth crime.
Prerequisite:WDW200YI, 220YI

## WDW380HI Crime and Gender

Theory, research and policy related to the ways in which gender shapes criminal behaviour, the administration of criminal justice, and the criminal law. How notions of different types of masculinity and femininity are embedded in and influence both the operation of the criminal justice system as well as criminal behaviours. The regulation of gender and sexuality through the criminal law and through crime.
Prerequisite:WDW200YI, 220YI
WDW385HI Representing Crime \& Authority 39L Cultural constructions of crime, disorder, dangerousness and risk are integral parts of the criminal justice system. A critical analysis of how police, crown attorneys, judges and the media construct their authority through symbols and images, in order to "explain" and manage crime, and how these representations are regarded in public discourse.
Prerequisite:WDW200YI, 220YI
WDW387HI Legal Regulation of Morality 39L
Regimes for prohibiting and regulating consensual activities such as drug use, pornography, prostitution, abortion, assisted suicide and gambling. Historical evolution of the law, current substantive elements required for conviction, philosophical and criminological perspectives on the decriminalization or legalization of these activities, and an examination of how other countries regulate them.
Prerequisite:WDW 200YI, 220YI
Exclusion:WDW 391HI in 2002
WDW388HI Drugs, Crime \& Control 39L
Drugs, drug use and addiction from a criminological perspective. The history and social construction of addiction, licit and illicit drugs, criminal and disease models of drug use, drug control laws, drugs in the media, legal and constitutional issues related to drug control, policy reform, and implications for social control.
Prerequisite:WDW 200YI, 220YI
Exclusion:WDW 390HI in 2005
WDW389Y0 Topics in Criminology TBA
Topics in Criminology offered in an international setting. The content may vary from year to year.
WDW390HI/ Topics in Criminology
391HI/
392HI/
393HI/
394HI
Topics vary from year to year, but the objective of the course is to explore emerging issues in Criminology, and their social, legal, ethical and political implications.
Prerequisite:WDW200YI, 220YI
WDW395HI Independent Study TBA
Independent study under the direction of a Criminology faculty member.
Prerequisite:WDW200YI, 220YI.Approval of the Undergraduate Co-ordinator is required.

WDW400HI Current Issues in Criminology
An advanced seminar exploring in detail current issues in Criminology. Topics vary from year to year, but the objective of the course is to discuss current issues and their social, ethical and legal implications.
Prerequisite: An average of at least 75\% in four full WDW
Criminology credits, and a CGPA of at least 3.0.
WDW405HI Risk, Uncertainty \& Criminal Justice 26S
An advanced seminar exploring how new conceptions of risk and uncertainty are transforming responses to crime. Leading edge theories and empirically based studies of how risk and uncertainty are addressed in law, the contemporary criminal justice system, and other social institutions.
Prerequisite: An average of at least 75\% in four full WDW
Criminology credits, and a CGPA of at least 3.0.

## WDW4IOHI History of Canadian

## Criminal Justice

An advanced seminar examining themes of Canadian criminal justice history, from the late-eighteenth to the mid-twentieth centuries. The course does not concentrate on the "facts" of history; rather it examines how historians interpret and present historical material. Critical analytical skills are developed through the exploration of historical writing.
Prerequisite:WDW $300 \mathrm{HI}, 310 \mathrm{HI}, 350 \mathrm{YI}$, enrolment in the
Criminology Specialist program

## WDW4I5HI Crime and Politics

 26SAn advanced seminar examining the development of criminal justice and penal policies in Canada, the United States, Western Europe and Russia; the way authorities in those countries define and manage political deviance and the intrusion of politics into the administration of justice, especially in non-democratic settings.
Prerequisite:WDW300HI, 350YI, enrolment in the
Criminology Specialist program
WDW420HI Current Issues in Criminal Law 26S
An advanced seminar exploring in detail current issues in criminal law. Topics vary from year to year, but the objective of the course is to discuss current policy and case law developments in the criminal law, and their social, political and ethical implications. The role of Parliament and the judiciary in the development of the criminal law is considered.
Prerequisite: An average of at least 75\% in four full WDW
Criminology credits, and a CGPA of at least 3.0.

## WDW435HI Seminar in Policing 26S

An advanced seminar examining the policing function from an historical, social and legal perspective, with emphasis on changes in the organization, structure and control of policing, and the implications of the different forms of policing for crime control, maintenance of order, and social control.
Prerequisite:WDW300HI, $335 \mathrm{HI}, 350 \mathrm{YI}$, enrolment in the
Criminology Specialist program
WDW440HI Seminar in Penology
An advanced seminar examining contemporary issues
in criminal punishment. Theories of punishment and the development of prisons in the wider system of social control in Western societies. Modern penal systems from social and legal perspectives.
Prerequisite:WDW300HI, $340 \mathrm{HI}, 350 \mathrm{YI}$, enrolment in the
Criminology Specialist program

## Woodsworth College

WDW450HI Criminology Research Project TBA
An individual research project under the direction of a Criminology faculty member. Approval of the Undergraduate
Co-ordinator is required.
Prerequisite:WDW300HI, 350YI, enrolment in the
Criminology Specialist program

## WDW480HI Interpersonal Violence

The meaning, purposes and sources of interpersonal violence, including an examination of debates over defining and documenting violence, and a review of the research on the relationships between illegitimate, interpersonal violence and state-approved or state-initiated violence. Cultural, social and individual correlates of interpersonal violence; law's violence; and how violence is justified and denied.
Exclusion:WDW 400HI in 2004-2006
Prerequisite: An average of at least 75\% in four full WDW
Criminology credits, and a CGPA of at least 3.0.

## Employment Relations Courses

WDW244HI Labour Relations 39L
Introduction to the institutions, issues and legislation affecting the employment relationship in the public and private sectors in Canada, with emphasis on collective bargaining. The economic and political environment, history of the labour movement, union organization, certification, contract negotiation, strikes, dispute resolution, contract administration and grievances.
Exclusion: ECO244YI,WDW244Y
Prerequisite: Four courses and a CGPA of at least 2.0
WDW260HI Organizational Behaviour
39L
Introduction to the nature of organizations and the behaviour of individuals and groups within organizations, including topics such as culture and diversity, reward systems, motivation, leadership, politics, communication, decision-making, conflict and group processes. Not recommended for students in Commerce programs.
Exclusion: MGT262HI, PSY332HI
Prerequisite: Four courses and a CGPA of at least 2.0
WDW344HI/ Topics in Employment Relations 39L
345HI/
346HI/
347HI/
348HI/
349HI
Topics vary from year to year, but the objective of the course is to discuss current employment relations issues and their economic, legal, political and social implications.

## WDW367HI Compensation

The theory and process of developing and administering compensation systems. Through the core compensation principles of efficiency, equity, consistency and competitiveness we consider such topics as: job analysis, job evaluation, pay levels and structures, pay for performance, benefits, and compensating special groups of workers.
Prerequisite:WDW260HI/MGT262HI

WDW378HI Employment Health 39L
The influence of legislation, the labour market and collective bargaining on health policies and programs in the workplace. The rights and responsibilities of employers, employees, unions and governments for the regulation and promotion of workplace health and safety; and the implications of evolving demographic, economic, and social factors.
Prerequisite:WDW 244HI, 260HI
WDW430YI Employment Law 52L
The major legal structures which regulate the employment relationship in the private and public sectors: the common law of contract (master/servant law), legislation governing collective bargaining, the primary statutes (employment standards act, human rights code, workers' compensation act, labour relations act, occupational health and safety act).
Prerequisite: ECO244YI/WDW244HI/244YI,WDW260HI/
260YI, enrolment in an Employment Relations program

## Other Woodsworth College Courses

WDW299YI Research Opportunity Program
Credit course for supervised participation in faculty research project. See page 47 for details.

WDW396HI/ Research Participation TBA 397YI
Credit course for supervised participation in a faculty research project. Offered only when a faculty member is willing and available to supervise. Faculty members review proposals with the Program Director, then make the opportunity known to students as appropriate. Open only to third and fourth year students enrolled in a Criminology or Employment Relations program.
Prerequisite: Completion of at least nine full courses. A
CGPA of at least 3.0 is recommended. Approval of the Undergraduate Coordinator is required.

## Writing and Rhetoric: see Innis College

## Writing in Arts and Science

## Writing in Arts and Science

(Note: For courses in creative writing, see entries under "English" (ENG), "Innis College" (INI) and "Victoria" (VIC) in this Calendar.)

The ability to think critically and to write well-organized, clear, grammatical prose is important to your work in many courses. It will improve your chances if you apply to graduate or professional schools and will also give you an advantage in the workplace. To help you develop your writing skills, Arts and Science provides a range of instructional resources.

## Courses

Departments and programs integrate instruction on writing into their courses, and some offer courses that concentrate on communication in their disciplines. Check the course listings by department. In any course, your instructors will provide guidelines for course assignments, and you may ask them to discuss written work that has been graded and returned to you.

In addition, the university offers a number of courses in writing non-fiction prose:

ENGIOOHI (Effective Writing) is listed under "English" in
this Calendar
TRNI90YI (Critical Reading and Critical Writing) is listed under "Trinity College"

Innis College now offers a minor program called Writing and Rhetoric. See the program website at www.utoronto.cal innis/wrl. Its offerings include the following courses, all listed under "Innis College": INI200YI (Writing Essays and Reports), INI203YI (Foundations of Written Discourse), INI204YI (The Academic Writing Process), INI300YI (Strategic Writing in Business and the Professions:Theory and Practice), INI3OIHI (Contemporary Issues and Written Discourse: Rhetoric and the Print Media in Canada), INI304HI (Critical Thinking and Inquiry in Written Communication), INI305H (Word and Image in Modern Writing), INI3I IYI (Seminar in Creative Writing), and INI4I2YI (Prose Style across Genres).

The University of Toronto at Mississauga (UTM) offers a major and minor program in Professional Writing and Communication. For more information, see the program's website at www. erin.utoronto.ca/~w3profwr/UTMPWCWebsite. Consult with your college registrar about taking courses at UTM. These are among the courses offered: WRI203H5 (Expressive Writing), WRI303H5 (Specialized Prose),WRI307H5 (Science and Writing), WRI3IOH5 (Social and Professional Languages), WRI320H5 (History and Writing), WRI325H5 (Community and Writing) ,WRI330H5 (Oral Rhetoric), WRI340H5 (Critical Reading and Listening), WRI392H5 (Research and Writing), WRI395H5 (Re-languaging:Writing across Cultures and Languages), and WRT420H5 (Making a Book).

WRT Courses provide opportunities for senior students to develop advanced writing skills in their disciplines. These courses count for degree credit but are evaluated on a CREDIT / NO CREDIT basis. No grades are awarded or calculated in the GPA. Regular tuition is charged. These courses cannot be taken to fulfill the distribution requirement.

## WRT306HI Writing for Scientists 26L

Intensive practice and instruction for senior science students. Teaches the essentials of writing in science courses and scientific research. Examines individual and collaborative activities in academic and professional life, focusing on such genres as the abstract, research report, poster, proposal, and product documentation. Readings introduce themes applicable to written communication in the sciences.
Prerequisite: 9.0 courses completed; major or specialist enrolment in science program
Exclusion: CSC290HI, HMB397HI, PSY309HI, PSL497HI,WRT307HI
WRT306HI has NO distribution requirement status.

## WRT307HI Writing for Social Scientists

Intensive practice and instruction for senior socialscience students. Teaches the essentials of socialscience writing in academic and professional life, with attention to individual and collaborative projects. Focuses on genres such as the abstract, proposal, research report, and position paper. Readings introduce themes applicable to written communication in the social sciences.
Prerequisite: 9.0 courses completed; major or specialist enrolment in social science program Exclusion: INI204YI, INI300YI,WRT306HI
WRT307HI has NO distribution requirement status.

## Writing_Centres

The Writing Centres provided free of charge at undergraduate colleges will help you develop the writing skills needed throughout your university studies. They offer both individual and group instruction. See the webpage www.utoronto. ca/writing/news.html for announcements about group workshops and non-credit courses.

In individual consultations, trained writing instructors help you improve your ability to plan, write, and revise, using your assignments from any subject as examples. Some instructors specialize in the needs of students using English as a second language. You are entitled to use the writing centre of the college where you are registered or living in residence, or of the department where you are taking a course. Here is a list of Arts and Science writing centres, including phone numbers and websites for obtaining further information and making appointments:
French Department Writing Labs: ask your professor or inquire at 4I6-926-2302

Innis College Writing Centre, Room 322, 416-978-25I3
New College Writing Centre, Wilson Hall, Room 2045 and 2047, www.ncwriting.ca

## Writing in Arts and Science

Philosophy Department Writing Clinic, 215 Huron Street, 9 th Floor, 4I6-978-33I4

St. Michael's College Writing Centre, Kelly Library, Rooms 230 and 23I, www.utoronto.ca/stmikes/campus/student_services_ wc.html

Trinity College Writing Centre, Larkin Building, Room 302, www. trinity.utoronto.ca/Writing/

University College Writing Workshop, Laidlaw Library, Room 214, www.utoronto.ca/ucwriting/

Victoria College Writing Workshop, Northrop Frye Hall, Rooms 103A and 103B, www.vicu.utoronto.ca/academic/tutorial/ writing.htm.

Woodsworth College Academic Writing Centre, Room 214, www.wdw.utoronto.ca/current/awchome.htm.

## Self-Help Material

Campus libraries stock many reference guides on academic writing. Besides general handbooks on style and format, you will find books that specialize in the ways to write for specific disciplines. You can also consult the website "Writing at the University of Toronto" at www.utoronto.ca/writing. It offers over 60 specialized files giving advice on university writing, along with links to other useful online and print resources, and it gives current information on writing instruction at $U$ of $T$.

## Yiddish: see Germanic Languages \& Literatures

## Zoology: see Life Sciences: Zoology

## Rules \& Regulations

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## Important Notices

While Departmental counsellors and the Registrars of the Colleges are always available to give advice and guidance, it must be clearly understood that THE ULTIMATE RESPONSIBILITY RESTS WITH THE STUDENT for completeness and correctness of course selection, for compliance with prerequisite, co-requisite requirements, etc., for completion of Program details, for proper observance of the Distribution Requirement and for observance of regulations, deadlines, etc. Students are responsible for seeking guidance from a responsible officer if they are in any doubt; misunderstanding, or advice received from another student will not be accepted as cause for dispensation from any regulation, deadline, program or degree requirement.

## Degrees Offered on the St. George Campus

Effective for students registering in a degree program in the Faculty for the first time in the 2001 summer session or later, the St. George Campus of the Faculty of Arts and Science has discontinued the 15 -course (three-year) B.A. and B.Sc. degrees; ONLY 20-course (four-year) Honours B.A., B.Sc. and B.Com degrees will be available. Students registered in a degree program in the Faculty before the 2001 summer session may still choose a 15-course (three-year) degree.

## Changes in Programs of Study and/or Courses

The programs of study that our calendar lists and describes are available for the year(s) to which the calendar applies. They may not necessarily be available in later years. If the University or the Faculty must change the content of programs of study or withdraw them, all reasonable possible advance notice and alternative instruction will be given. The University will not, however, be liable for any loss, damages, or other expenses that such changes might cause.

For each program of study offered by the University through the Faculty, the courses necessary to complete the minimum requirements of the program will be made available annually. We must, however, reserve the right otherwise to change the content of courses, instructors and instructional assignments, enrolment limitations, pre-requisites and co-requisites, grading policies, requirements for promotion and timetables without prior notice.

## Regulations and Policies

The University has several policies that are approved by the Governing Council and which apply to all students. Each student must become familiar with the policies. The University will assume that he or she has done so. The rules and regulations of the Faculty are displayed here. Applicable University policies are either fully displayed here or listed here. In applying to the Faculty, the student assumes certain responsibilities to the University and the Faculty and, if admitted and registered, shall be subject to all rules, regulations and policies cited in the calendar, as amended from time to time.

## Enrolment Limitations

The University makes every reasonable effort to plan and control enrolment to ensure that all of our students are qualified to complete the programs to which they are admitted, and to strike a practicable balance between enrolment and available instructional resources. Sometimes such a balance cannot be struck and the number of qualified students exceeds
the instructional resources that we can reasonably make available while at the same time maintaining the quality of instruction. In such cases, we must reserve the right to limit enrolment in the programs, courses, or sections listed in the calendar, and to withdraw courses or sections for which enrolment or resources are insufficient notice and alternative instruction will be given. The University will not be liable for any loss, damages, or other expenses that such limitations or withdrawals might cause.

## Copyright in Instructional Settings

If a student wishes to tape-record, photograph, video-record or otherwise reproduce lecture presentations, course notes or other similar materials provided by instructors, he or she must obtain the instructor's written consent beforehand. Otherwise all such reproduction is an infringement of copyright and is absolutely prohibited. In the case of private use by students with disabilities, the instructor's consent will not be unreasonably withheld.

## Person I.D. (Student Number)

Each student at the University is assigned a unique identification number. The number is confidential. The University, through the Policy on Access to Student Academic Records, strictly controls access to Person I.D. numbers. The University assumes and expects that students will protect the confidentiality of their Person I.D.'s.

## Fees and Other Charges

The University reserves the right to alter the fees and other charges described in the calendar.

## Notice of Collection concerning Freedom of Information and Protection of Privacy

The University of Toronto respects students' privacy. Personal information that you provide to the University is collected pursuant to section 2(14) of the University of Toronto Act, 1971. It is collected for the purpose of administering admissions, registration, academic programs, university-related student activities, activities of student societies, financial assistance and awards, graduation and university advancement, and for the purpose of statistical reporting to government agencies. At all times it will be protected in accordance with the Freedom of Information and Protection of Privacy Act. If you have questions, please refer to www.utoronto.ca/privacy or contact the University Freedom of Information and Protection of Privacy Coordinator at 416-946-7303, McMurrich Building, Room 20I, 12 Queen's Park Crescent West, Toronto, ON, M5S IA8.

## Registration

Details of the procedures by which students of the Faculty of Arts and Science register and enrol in courses for which they are eligible, and pay or make arrangements to pay fees, are found in the Registration Handbook and Timetable, which students receive from their college. (Any student allowed to register one day after the end of the first week of classes is charged a late fee.

## Passed Courses May Not Be Repeated

Students may not repeat any course in which they have already obtained a mark of $50 \%$ or higher. The only exceptions occur when students require a course with a specific grade for entry to a limited-enrolment Program. Students may repeat such a

## Rules \& Regulations

course only once as an "extra" course, which will have no effect on status or Grade-Point Average. There are no supplemental examinations or provisions to "upgrade" a mark. All courses taken, except those officially cancelled, remain on the record.

## Degree Courses and "Extra" Courses: Chronological Principle

Courses are credited towards a degree chronologically. For example, if a student has already passed six 100 -series courses and then enrols in further 100 -series courses, the more recent courses are counted as "Extra" courses. An exception occurs when a student who has completed 5.5 100-series courses enrols in a full course at the 100 -level in a subsequent session; the most recently taken half-course becomes "extra."

## Taking Courses Outside the Faculty

## Courses at University of Toronto Scarborough and University of Toronto Mississauga

Students registered on the St. George campus of the Faculty of Arts and Science may enrol in most courses offered by University of Toronto Mississauga and University of Toronto Scarborough, provided that they meet the enrolment controls and prerequisites established by those divisions. These courses count towards the 20 credits required for a St. George degree and are included in the CGPA. These courses may also count towards St. George program requirements; students should check with their program office before enrolling.

However, there are some courses offered by University of Toronto Mississauga and University of Toronto Scarborough that may not be counted towards St. George degree credit or the CGPA.A full list of these courses is posted on the Arts and Science web site at www.artsandscience.utoronto.ca/ofr/ calendar/utmutsc.htm.

A student who wishes to enrol in one of these courses should petition through his/her College Registrar's office. If the petition is granted the student will be permitted to enrol in the course but it will be marked as "EXTRA" on the transcript and will not be counted for degree purposes nor included in the CGPA calculation.

## Courses of Other Divisions

Students should select their courses from those offered in the Faculty of Arts and Science. If, however, they identify a course(s) offered in another division, faculty or school of the University that may be appropriate for inclusion in their degree program, they may petition for permission to register in the course for degree credit. In the petition, students must establish that the content and aims of the course(s) are valid for a specific Arts and Science program and cannot not be met by courses offered within the Faculty of Arts and Science. The students should initiate the procedure well in advance of the beginning of classes, so that they may choose alternate courses should the request is denied. The Faculty will not accept as reasons for taking courses in other divisions the wish to satisfy requirements to qualify for programs and organisations outside the Faculty or to prepare for non-academic or professional purposes.

Graduate Courses:Acceptance of petitions to take graduate courses is further subject to the requirements of the School of Graduate Studies (CGPA of 3.0).

Non-degree students may enrol through this Faculty in courses given by this Faculty or the University of Toronto Mississauga or the University of Toronto Scarborough only.

See the section on petitions and appeals starting on page 480 for more information.

## Courses of Other Universities (Letters of Permission and Transfer Credit)

Degree students with a cumulative grade point average of at least 1.50 before studying elsewhere may take a maximum of 5.0 full-course equivalents elsewhere for transfer credit. Students admitted with transfer credit may be limited in the number of courses that they may transfer after admission and should consult the chart available on the web at www.artsci.

## Rules \& Regulations

utoronto.ca/current/undergraduate/tc. Prior to taking courses at another Canadian or American university, students are advised to request a Letter of Permission to confirm acceptability of those courses for transfer credit. Otherwise, students may submit a request for transfer credit after completing courses elsewhere. Permission obtained from an instructor or from a department for program purposes, however, does not obligate the Faculty to grant transfer credit. There is a $\$ 25.00$ nonrefundable charge for each request. Assessments of transfer credit may take several weeks to process depending on the time of year and the nature of the request. Applicants are responsible for submitting requests well in advance of any deadlines they must meet and for obtaining the appropriate counselling concerning the Letter of Permission and/or Transfer Credit process.

## Note:

Only one transfer credit may be used to satisfy the requirement of 300+ series courses for the degree. Please refer to the Letters of Permission and Transfer Credit (Post-Admission) Guidelines on the Registrar's Office web site at www.artsci. utoronto.ca/current/undergraduate/tc.

## Study Elsewhere Opportunities

U of T offers a wide range of opportunities to study elsewhere. For more information contact:

International Student Exchange Office
Rm. 202, Koffler Centre, 214 College St.
416-946-3138
student.exchange@utoronto.ca
www.utoronto.ca/student.exchange
Summer Abroad Program
Room 23I,Woodsworth College, II9 St. George St. 416-978-8713
summer.abroad@utoronto.ca
www.summerabroad.utoronto.ca

## Cancelling Courses or Registration

## Cancelling Courses

Students who do not intend to complete a course or courses must use the Student Web Service to cancel the course before the final date to cancel courses from the academic record (see Sessional Dates, page 6). Students still enrolled in a course after the final date to cancel the course will receive a grade for that course. Not attending classes or ceasing to complete further course work or not writing the examination do not constitute grounds for cancellation without academic penalty from a course; the course remains on the record with the grade earned, including " 0 " for incomplete work.

Students are not permitted to cancel or withdraw from a course in which an allegation of academic misconduct is pending from the time of the alleged offence until the final disposition of the accusation.

## Cancelling Registration

Students who wish to cancel all their current courses, and do not intend to enrol in any other courses for the rest of the session (Fall,Winter or Summer) must cancel their registration by using the Student Web Service at www.rosi.utoronto.ca or in
writing by notifying their College Registrar. The cancellation of registration must be completed by the appropriate deadline in order for the student not to incur an academic penalty. Before any refund is authorized, they must:
I. Pay any outstanding fees;
2. return any books to the Library and pay any outstanding fines;
3. vacate any laboratory or athletic lockers and return any equipment in their possession.

## Corrections to the Academic Record

The Faculty will accept requests for corrections to an academic record of the Fall-Winter Session up to the following 15 November, and corrections to their record of the Summer Session up to the following 28/29 February.

## Note:

Students are responsible for ensuring that they provide a valid mailing address to assure that they receive a Statement of Results at the end of the Fall-Winter and Summer Sessions. The mailing address must be kept up-to-date on the Student Web Service at www.rosi.utoronto.ca. Students who cease attending a course without officially cancelling or after the cancellation deadline will be considered to be enrolled in that course. It will be included in their official Statement of Results.

## Fees

Fees are subject to change at any time by approval of the Governing Council. Tuition fees normally consist of academic fees (including instruction and library) and incidental/ancillary fees (including Hart House, Health Services, Athletics and student organizations). Additional ancillary fees may also be assessed for enrolment in some specific courses. Consult the Student Accounts web site at www.fees.utoronto.ca or the Bursars of St. Michael's and Trinity Colleges.

## Fees lnvoice and Payment

Students receive an invoice by mail or in person at Students Accounts or their college bursar's office (St. Michael's and Trinity students) detailing fees for their specific program and selection of courses. Payment is made at a financial institution - consult the instructions sent with the invoice. You can also pay your fees using telephone or online banking if your bank offers this service. Refer to the Registration Handbook \& Timetable for further details.

## Payment Deadlines

Deadlines are available from the Student Accounts Office or from the college bursar's offices (St. Michael's and Trinity students).

To avoid delays, students are advised to pay fees early.
All fees and charges posted to your account are payable. If not paid in full, any outstanding account balance is subject to a monthly service charge of $1.5 \%$ per month compounded (19.56\% per annum). Outstanding charges on your account from prior sessions are subject to a service charge as of the 15th of every month until paid in full."

Students with outstanding accounts may not receive official

## Rules \& Regulations

transcripts and may not re-register at the University until these accounts are paid.

## Fees for International Students

In accordance with the recommendation of the Government of Ontario, certain categories of students who are neither Canadian citizens nor permanent residents of Canada are charged higher academic fees. Refer to the Student Accounts web site at www.fees.utoronto.ca for details.

Further information on fees may be obtained by students of Innis, New, University, Victoria and Woodsworth Colleges from the Student Accounts Office, University of Toronto, 215 Huron St., Toronto, Ontario, M5S IA2; 4I6-978-2I42. Students of St. Michael's and Trinity Colleges should consult their College Bursar.

## Financial Assistance

A limited number of in-course bursaries, scholarships and awards is available to students who need financial assistance or who qualify for them on the basis of academic merit. Information on these, and the Ontario Student Assistance Program, is available on the following web sites:

Faculty of Arts \& Science web site: www.artsci.utoronto.ca
Admissions and Awards web site: www.adm.utoronto.ca/fa/
or the College Registrars' offices and web sites.

## Sanctions on Account of Outstanding_Obligations

The following are recognized University obligations:
(a) tuition fees;
(b) academic and other incidental fees;
(c) residence fees and charges;
(d) library fines;
(e) loans made by Colleges, the Faculty or the University;
(f) Health Service accounts;
(g) unreturned or damaged instruments, materials and equipment;
(h) orders for the restitution, rectification or the payment of damages, fines, bonds for good behaviour, and requirement of public service work imposed under the authority of the Code of Student Conduct.

The following academic sanctions are imposed on Arts and Science students with outstanding University obligations:
I. Official transcripts of record will not be issued;
2. Registration will be refused to continuing or returning students.

Payments made by continuing or returning students will first be applied to outstanding University debts and then to current fees.

## Course Marks

## Term Work and Term Test Regulations

The following regulations summarize the Faculty's implementation of the University's Grading Practices Policy, Parts I and II of which are reprinted in full starting on page 484 (Part III is an administrative appendix and is available upon request from the Office of the Vice-President and Provost; however grade scales may be seen on page 478 of this Calendar).

## Marking Schemes

Both essays (or equivalent work) and examinations (including term tests) are normally required for standing in courses. In courses where only one form of evaluation is used, a single piece of work cannot count for all of the final mark.

Self-evaluation by individual students or by groups of students is not permissible unless the specific consent of the Arts and Science Faculty Council is received.

As early as possible in each course, and no later than the last date to enrol in courses, the instructor must announce in a regularly-scheduled class the methods by which student performance will be evaluated, their relative weight in the final mark, including any discretionary factor, and the due dates. These methods must be in accord with applicable University and Faculty policies (See TERM WORK and TERM TEST below, especially bold-faced items.) Instructors must file a copy of their marking scheme for each course with the Departmental or Program Office at the beginning of the term.

Once the weight of each component of the course work is given, it may not be changed unless approved by a majority of the students present and voting at a regularly-scheduled meeting of the class.

After the last date to cancel the course without academic penalty, no change in marks weighting may take place unless there is unanimous consent of all students present and voting, and notice must be given at the regularly-scheduled class meeting previous to that at which the issue is to be raised.

Students may petition for deletion of the course from their record and receive an appropriate fees refund, should an infraction of the Grading Practices Policy occur. Petitions must be filed by the last day of classes, before all course work has been completed.

## Term Work

Instructors MUST assign, grade and return at least one significant assignment as early as possible, and at the latest BEFORE the final date to cancel without academic penalty.

All term work must be submitted on or before the last day of classes in the course concerned, unless an earlier date is specified by the instructor. Students who for reasons beyond their control are unable to submit an assignment by its deadline must obtain approval from their instructor for an extension of the deadline. This extension may be for no longer than the end of the Final Examination period. If additional time beyond this period is required, students must petition through their College Registrar before the end of the examination period for a further extension of the deadline.

Students are strongly advised to keep rough and draft work and copies of their essays and assignments, as these may be required by the instructor.

All written work that has been evaluated should be returned with such detailed comment as the instructor deems appropriate, and time made available for discussion of it. Any enquiries about a graded piece of work must be made within one month of the date the work was returned to the class. Instructors must keep unclaimed term work for at least six months beyond the end of the course.

## Term Tests

No term test or combination of term tests held in the last two weeks of classes at the end of any term may have a total weight greater than $25 \%$ of the final mark.

All term tests must be held on or before the last day of classes. No term test may be held during the "Reading Week" in February, during the "Study Week" in April, or during Faculty Examination Periods, except for those in F or Y -courses scheduled by the Faculty in December.

## Missed Term Tests

Students who miss a term test will be assigned a mark of zero for that test unless they satisfy the following conditions:
I. Students who miss a term test for reasons entirely beyond their control may, within one week of the missed test, submit to the instructor or department/program a written request for special consideration explaining the reason for missing the test, and attaching appropriate documentation, such as a medical certificate.
2. If a written request with documentation cannot be submitted within one week, the department may consider a request to extend the time limit.
3. A student whose explanation is accepted by the department will be entitled to one of the following considerations:
a) In courses where there is no other term work as part of the evaluation scheme, a makeup test must be given. b) In other courses, the department/program may either give a makeup test OR increase the weighting of other graded work by the amount of the missed test. In no case may the weighting of the final examination in a 100 -level course be increased beyond $2 / 3$ of the total course mark.
4. If the student is granted permission to take a makeup test and misses it, then he or she is assigned a mark of zero for the test unless the department/program is satisfied that missing the makeup test was unavoidable. No student is automatically entitled to a second makeup test.*
5. A student who misses a term test cannot subsequently petition for late withdrawal from the course without academic penalty on the grounds that he or she has had no term work returned before the drop date.

## * Note

This means that if a department is persuaded of the student's grounds for missing the makeup test, it may decide to compensate for the missed test in whatever way it chooses, which could be by giving another makeup test; the student cannot demand another makeup test.

## Eaculty Final Examinations

A Faculty final examination common to all sections of the course and counting for between one-third and two-thirds of the final mark must be held in each 100 -series course, unless exemption has been granted by the Arts and Science Faculty Council. In 200-, 300- and 400 -series courses, the Departments will decide whether or not an examination is appropriate, and report to the Committee. The ratio of term work to examination mark will be the same for all sections of multisection courses that have final examinations. The relative value of each part of a written examination must be indicated on the question paper.
Final examinations are held at the end of each session or subsession. Students taking courses during the day may be required to write evening examinations, and students taking evening courses may be required to write examinations during the day. Examinations may be held on Saturdays. Students who make personal commitments during the examination period do so at their own risk. No special consideration is given and no special arrangements are made in the event of conflicts.
Students who are unable to write their examinations due to illness, domestic affliction, etc., should contact their College Registrar (see "Petitions Regarding Examinations", page 48I). Students who have two Faculty final examinations at the same time, or three consecutive Faculty final examinations (e.g., morning, afternoon, evening; or afternoon, evening, next morning) should contact the Office of the Faculty Registrar well before the examination period begins. Information regarding dates, times and locations of examinations will not be given by telephone; for the most up to date examination timetable consult the Faculty Website.

## Rules for the Conduct of Examinations

I. No person will be allowed in an examination room during an examination except the candidates concerned and those supervising the examination.
2. Candidates must appear at the examination room at least twenty minutes before the commencement of the examination.
3. Candidates shall bring their student photo identification cards and place them in a conspicuous place on their desks.
4. Bags and books are to be deposited in areas designated by the Chief Presiding Officer and are not to be taken to the examination desk or table. Students may place their purses on the floor under their chairs.
5. The Chief Presiding Officer has authority to assign seats to candidates.
6. Candidates shall not communicate with one another in any manner whatsoever during the examination.
7. No materials or electronic devices shall be brought into the room or used at an examination except those authorized by the Chief Presiding Officer or Examiner. Unauthorized materials include, but are not limited to: books, class notes, or aid sheets. Unauthorized electronic devices include, but are not limited to: cellular telephones, laptop computers, calculators, MP3 players (such as an iPod), Personal Digital Assistants ("PDA" such as Palm Pilot or Blackberry), pagers, electronic dictionaries, Compact Disc Players, and Mini Dlsc Players..
8. Candidates who bring any unauthorized materials or electronic devices into an examination room or who assist or obtain assistance from other candidates or from any unauthorized source are liable to penalties under the Code of Behaviour on Academic Matters, including the loss of academic credit and expulsion.
9. In general, candidates will not be permitted to enter an examination room later than fifteen minutes after the commencement of the examination, nor to leave except under supervision until at least half an hour after the examination has commenced.
10. Candidates shall remain seated at their desks during the final ten minutes of each examination.
II. At the conclusion of an examination, all writing shall cease. The Chief Presiding Officer may seize the papers of candidates who fail to observe this requirement, and a penalty may be imposed.
12. Examination books and other material issued for the examination shall not be removed from the examination room except by authority of the Chief Presiding Officer.

## Special Accommodations Fee

Students who request permission to write an examination outside the normal examination arrangements must submit a petition making their request at least three weeks prior to the beginning of the examination period. Late requests cannot be accommodated.
A non-refundable fee of $\$ 30.00$ for each examination is charged at the time of application. Students who have been granted permission to write a deferred examination will pay this fee in addition to the deferred examination fee of $\$ 70.00$ per examination.

If permission has been granted for the examination to be written at an "Outside Centre", students are also responsible for all costs for invigilation, postage, etc. charged by the centres involved. These costs can reach as high as $\$ 100.00$ per examination; students are advised to determine the total cost before petitioning. Such permission is granted only in the most extreme circumstances.

## Grading Regulations

## Grading Scale

| Percentage | Letter <br> Grade | Grade <br> Point <br> Value * | Grade <br> Definition |  |
| :---: | :---: | :---: | :---: | :---: |
| 90-100 | A+ | 4.0 |  | Strong evidence of original thinking; good organization; |
| 85-89 | A | 4.0 | Excellent | capacity to analyze and synthesize; superior grasp of subject matter with sound critical evaluations; evidence of extensive |
| 80-84 | A- | 3.7 |  | knowledge base. |
| 77-79 | B+ | 3.3 |  |  |
| 73-76 | B | 3.0 | Good | Evidence of grasp of subject matter, some evidence of critical capacity and analytic ability; reasonable |
| 70-72 | B- | 2.7 |  | understanding of relevant issues; evidence of familiarity with literature. |
| 67-69 | C+ | 2.3 |  |  |
| 63-66 | C | 2.0 | Adequate | Student who is profiting from his/her university experience; understanding of the subject matter; ability to develop |
| 60-62 | C- | 1.7 |  | solutions to simple problems in the material. |
| 57-59 | D+ | 1.3 |  |  |
| 53-56 | D | 1.0 | Marginal | Some evidence of familiarity with subject matter and some evidence that critical and analytic skills have been developed. |
| 50-52 | D- | 0.7 |  |  |
| 0-49 | F | 0.0 | Inadequate | Little evidence of even superficial understanding of subject matter; weakness in critical and analytic skills; with limited or irrelevant use of literature. |

* The grade point values above apply to marks earned in individual courses; grade point averages are weighted sums of the grade points earned (see below), and thus do not necessarily correspond exactly to the scale above. For example, a $B+$ average would include grade point averages from 3.20 to 3.49 , while the lowest $B$ - average would be 2.50 .


## Note:

In order to "obtain standing" in a course, a student must receive at least a passing grade (50\%) in that course. A Grade of " $F$ " is a failure. There are no supplemental examination privileges in the Faculty.

Other notations, which have no grade point values, and which may be authorized only by petition, are:

## AEG

Aegrotat Standing on the basis of term work and medical evidence

## CR/NCR

Credit/No Credit; is not in general use in the Faculty

## NGA

No Grade Available

## Grade Point Average

The Grade Point Average is the weighted sum (a full course is weighted as 2 , a half-course as I) of the grade points earned, divided by the number of courses in which grade points were earned.

However, courses noted "AEG" are not included in the average, nor are transfer credits, courses taken elsewhere on a Letter of Permission, nor courses designated as "extra." Courses taken as Non-degree students and Non-degree visiting students are included in the CGPA.

Three types of grade point averages are used:
I. The Sessional GPA is based on courses taken in a single session (Fall, Winter or Summer);
2. The Annual GPA is based on courses taken in the FallWinter Sessions;
3. The Cumulative GPA takes into account all courses not marked "extra" in the Faculty.
A Sessional, Annual, and Cumulative GPA is also calculated for all Non-degree and Non-degree visiting students. For Nondegree students who have completed a degree in the Faculty, the Cumulative GPA includes all courses taken both as a degree student and as a non-degree student.

## Academic Standing

There are four kinds of academic standing which apply to students who have attempted at least four courses in the Faculty: In Good Standing; On Probation; On Suspension; Refused Further Registration

Academic standing is assessed twice a year:
I. At the end of the Winter Session; the GPAs used for this status assessment are the annual and the cumulative GPAs.
2. At the end of the Summer Session; the GPAs used for this status assessment are the sessional and the cumulative GPAs.

## In Good Standing:

Students are described as In Good Standing if they are neither On Probation, Suspended nor Refused Further Registration; these terms are explained below. For students with particularly noteworthy academic results, there are three specific forms of recognition, which are described in the "Student Services \& Resources" section starting on page 12.

## Probation; Suspension; Refused Further <br> Registration

The following regulations apply to students who have attempted at least four courses* in the Faculty.
I. A student shall be on academic probation who
a) has a cumulative GPA of less than 1.50 or
b) returns from suspension.
2. A student who, at the end of the Winter or Summer Session during which he or she is on probation
a) has a cumulative GPA of 1.50 or more shall be in good standing
b) has a cumulative GPA of less than 1.50 but an annual GPA of 1.70 or more (Winter Session)/sessional GPA of 1.70 or more (Summer Session) shall continue on probation.
c) has a cumulative GPA of less than 1.50 and an annual GPA of less than 1.70 (Winter Session)/sessional GPA of less than 1.70 (Summer Session) shall be suspended for one calendar year unless he or she has been so suspended previously, in which case he or she shall be suspended for three years.
3. A student who, having been suspended for three years, is again liable for suspension shall be refused further registration in the Faculty.

* Courses attempted are those in which a student remains formally enrolled on the last date for cancellation, unless the academic penalty normally attached to a later cancellation is removed by petition.

NOTE: Students "On Academic Probation" may take no more than five courses in each of the Fall and Winter Sessions.

## Grades Review Procedure

The Arts and Science Faculty Council administers the Grading Regulations, and reviews course grades submitted by Departments. The Faculty, through this Committee, is responsible for assigning the official course grades, which are communicated to the students by the Faculty Registrar.

Each Chair appoints a departmental review committee to review grades submitted by instructors. The committee may ask for clarification of any anomalous results or distributions, or disparity between sections of the same courses. Both the departmental review committee, through the Chair, and the Faculty review committee, through the Dean, have the right, in consultation with the instructor of the course, to adjust marks where there is an obvious and unexplained discrepancy between the marks submitted and the perceived standards of the Faculty. Final marks are official, and may be communicated to the students only after the review procedure has taken place. Grades, as an expression of the instructor's best judgment of each student's overall performance, will not be determined by any system of quotas.

## Rules \& Regulations

## Appeals and Petitions

Students are responsible for observing sessional dates, course prerequisites, and exclusion, satisfying the degree requirements and following the rules and regulations in the Calendar and the Registration Handbook and Timetable; failure to inform themselves of the preceding information may result in academic and/or financial penalties. Students should always consult their College Registrar immediately for guidance if anything happens that interferes with continuing or completing their courses, or that appears to be contrary to rules, regulations and deadlines.

## Departmental Appeals

Issues arising within a course that concern the pedagogical relationship of the instructor and the student, such as the organization of a course, grading practices, or conduct of instructors, fall within the authority of the department or college sponsoring the course. Students are encouraged to discuss any issues regarding the academic aspects of a course with the instructor. It is recommended that if appropriate an issue should be documented in writing. The successive stages of appeal after the course instructor are as follows: the Undergraduate Secretary; the Chair of the Department or the College Program Director; then the Dean of the Faculty. An appeal must have been reviewed at the departmental level before referral to the Dean; appeals to the Dean MUST be in writing.

## Petitions to the Faculty

Issues relating to degree requirements and administrative regulations may be petitioned to the Faculty within specific time limitations. The Faculty considers petitions to have regulations waived or varied, if a student presents compelling reasons; however, students must convince the Faculty that they have acted responsibly and with good judgment in observing Faculty regulations. The Committee on Standing routinely denies petitions that in its view do not present a valid reason for an exemption from the regulations. Students are encouraged to seek counselling and, if necessary, to initiate a petition through the office of their College Registrar.

Petitions must I) state the student's request; 2) the reasons for the request in a clear and concise manner; and 3) be accompanied by relevant supporting documentation. The petition is considered in confidence by the Committee on Standing, which is charged with interpreting and administering the regulations of the Faculty. The Committee has the authority to grant exceptions and to attach conditions to its decisions.
It is the responsibility of the student to provide an accurate address to which a petition decision may be sent. Non-receipt of a decision due to postal error or incorrect address is not grounds for reconsideration.

## Deadlines to File Petitions <br> Term Work

The last day of the examination period

## Examinations

Within one week of the end of the examination period; end of first week of classes in January for the December examination period

## Withdrawal

Fall-Winter Session courses: the following 15 November Summer Session courses: the following 28/29 February

All supporting documentation must be submitted within three weeks of the date of initiating the petition. Late petitions and petitions with late documentation will not be considered.

## Documentation in Support of Petitions

The Faculty seeks documentation that provides pertinent evidence for decisions determining whether or not an exception should be made to regulations that are designed to ensure equitable treatment for all students.

## Medical Documentation:

The University of Toronto Student Medical Certificate must be submitted in support of a request for an exemption from Faculty regulations, if illness is being used as the reason for the request. The claim of illness, however, is not sufficient grounds in itself to guarantee approval of the request. This certificate is available online at www.utoronto.ca/health, or at the Health Services (Medical and Psychiatric Services), the Office of the Faculty Registrar, College Registrar's Offices, departments and other offices of the University as well as in the Registration Handbook and Timetable. The certificate is titled as follows:

## University of Toronto Medical Certificate

Other medical notes will not be accepted. Note that the physician's report must establish that the patient was examined and diagnosed at the time of illness, not after the fact. The Faculty will not accept a statement that merely confirms a report of illness made by the student for documentation by the physician.

## Petitions Regarding Courses in Other Divisionssee page 473.

## Petitions Regarding Term Work (see also page

 475)Matters concerning term work normally fall within the authority of the instructor. Students unable to comply with given deadlines must contact their instructor prior to the deadline if an extension to the deadline is requested. All term work must be submitted by the last day of classes, unless an earlier date has been specified. Instructors may grant extensions beyond their own deadlines or beyond the last day of classes up to the last day of the examination period provided that a student presents reasons of illness, etc., with appropriate documentation. Extensions beyond the last day of the examination period interfere with the Faculty's schedule for the submission of final grades and must therefore be approved by petition. These petitions for an extension of time for term work must be initiated by the last day of the relevant examination period. Late requests will not be accepted. Students must file

# Rules \& Regulations 

the petition after consultation with the instructor regarding a suitable extension date. The Committee on Standing consults the department concerned for information about the status of the course work, and the steps, if any, that must be taken to complete the course. Students seeking an extension of time for term work are expected to continue their course work while they await a decision. They will not be granted additional time after the petition decision has been issued.

## Petitions Regarding Examinations (see also page 476)

Students are expected to write examinations as scheduled. Only in cases of documented debilitating illness or legitimate conflict should a student request a deferral of a final examination. Students who are too ill and/or incapacitated at the time of the examinations should petition to defer the examination they are unable to attend due to their medical condition. Petitions based on travel, employment, or personal plans will not be considered.

A deferred special examination at a subsequent examination period or the regular offering of the examination when next taught may be granted at the discretion of the Faculty. Satisfactory evidence in the form of the University of Toronto Student Medical Certificate* (see above) must be provided to corroborate the illness. Students with chronic illnesses must provide medical documentation for the specific date on which the illness was acute. Students must submit a petition within one week of the end of the examination period through their college registrar. There is a fee of $\$ 70.00$ per deferred examination (maximum $\$ 140.00$ ). In the petition decision students are notified of the examination period in which the deferred examination will take place, and if the examination will be a regular or special examination. They must register and pay the fee by a given deadline, in order that arrangements can be made, an examination requested, etc. The Faculty will notify those who do not register by the deadline that they have lost their privilege of a deferred examination and will revert the grade to one that includes a " 0 " for the final examination. No further consideration will be given. The Faculty sends written notification to the students who have registered for deferred examinations of the specific date (within the already specified examination period), time and location of a deferred examination, as well as the reserved seating (if a special examination). Note, letters are mailed as early as possible, but due to the constraints of scheduling with the regular examinations, the mailing will occur five working days after the release of the regular August examination schedule, and ten working days after the release of the April/May and December examination schedules. Those who do not respond lose the privilege of a deferred examination and their grade reverts to one that includes a " 0 " for the final examination.

| Final <br> Examination | Deferred <br> Examination |
| :--- | :---: |
| April/May | June examination period, if course is <br> offered in Summer Session May to June; <br> August examination period for all others |
| June | August examination period, if course <br> offered in Summer Session May/July - August <br> December examination period, if course <br> offered in Fall Session <br> August examination periods for all others |


| August | December examination period |
| :--- | :--- |
| December | April/May examination period, if course offered <br> in Winter Session |
|  | Reading Week for all others |

Students who must write a deferred examination in a course that serves as a prerequisite for subsequent courses may enrol in those courses with the approval of the department concerned and provided that the term mark in the prerequisite (deferred) course is at least 60\%.

## Notes:

N.B. Students who are granted Deferred Standing (i.e., the notation of "SDF", for an extension of time for term work or for a deferred examination) and who have earned a Cumulative Grade Point Average of less than I.50, will not be permitted to enrol in further courses until the outstanding course work has been completed and final cumulative and sessional GPAs and status for the session have been assessed.

If students decide to write an examination which does not go well, they MAY NOT PETITION FOR A REWRITE. Post hoc arguments claiming an inability to function at full potential or to exhibit full knowledge of the subject matter will not be accepted as grounds for consideration of a petition concerning performance on an examination. Furthermore, students who choose to write an examination against medical recommendation should do so knowing that they will not be given consideration after the examination has been written. Students must not only take responsibility for making appropriate judgements about their fitness to attend examinations, but also must accept the outcome of their choices.

Students who miss a deferred examination receive a grade of " 0 " for the examination in the calculation of the final grade. If the Faculty accepts the student's reasons for missing a deferred examination as legitimate, a further deferred examination may be permitted; however, the "SDF" notation will be replaced by the original grade. Students are charged a further fee for each subsequent deferred examination. Note that in such situations of further deferrals the Committee on Standing regularly prohibits registration in further sessions until the outstanding course work has been completed.

## Appeals Against Petition Decisions

Appeals against petition decisions progress as follows:
I. First petition to the Committee on Standing by appropriate deadline submitted through College Registrar (see Deadlines to File Petitions);
2. Appeal to the Committee on Standing within ninety days of the first decision; second petition submitted through the College Registrar;
3. Appeal to the Faculty Academic Appeals Board within ninety days of the second decision; written request for a hearing submitted through the College Registrar;
4. Appeal to the Academic Appeals Committee of Governing Council within ninety days of the decision of the Faculty Academic Appeals Board; written request for a hearing submitted directly to the Governing Council Office in Simcoe Hall, to the attention of Mr.A. Gray.

## Reassessment of Marks

## Reread of Final Examination

If a student believes that a final examination has been incorrectly marked in its substance, he/she may request a "reread." The student must first purchase a photocopy of the final examination from the Office of the Faculty Registrar, for a fee of $\$ 13.00$ per course. The student must then fill out a "Request for Reread of Final Examination" form, which is available at the Office of the Faculty Registrar and on the Faculty Registrar's web site at www.artsci.utoronto.ca/current/ undergraduate/exams. The student must demonstrate that his/her answers are substantially correct by citing specific instances of disagreement, supported by such documentary evidence as course handouts, textbooks, lecture notes, etc. The student must do more than simply assert that "I disagree with the marking," or that "I believe I deserve more marks." The Department concerned will reread the examination in light of the arguments presented. There is a $\$ 35.00$ fee for this procedure, which is in addition to the fee of $\$ 13.00$ charged for the photocopy of the final examination. The fee must be submitted, with the completed form, to the Office of the Faculty Registrar within six months of the final examination period. If the mark is changed as a result of this review both the photocopy and reread fees will be refunded. It should be noted that when a course is failed, the examination must be reread before the mark is reported.

## Recheck of Course Mark

If a student believes that there has been an arithmetical error in calculating the course mark, he/she may request a "recheck." This can be done with or without purchasing a photocopy of the final examination. The student must fill out a "Request for Recheck of Course Mark" form, which is available at the Office of the Faculty Registrar and on the Faculty Registrar's web site atwww.artsci.utoronto.ca/current/undergraduate/exams. The student must indicate precisely where he/she thinks the error has occurred. The Department concerned will check that all answers have been marked, and that the marks have been added correctly; the examination will not be reread. The Department will also check that all term work marks have been correctly calculated. There is no charge for this procedure. The completed form must be submitted to the Office of the Faculty Registrar within six months of the final examination period. If the mark is changed as a result of this review, the photocopy fee will be refunded.

## Note:

A reread or recheck may result in a raised mark, a lowered mark, or no change.

Deadlines for requesting a photocopy of a final examination, a reread or a recheck:

February examinations: the following August 31
April/May examinations: the following November 15
June examinations: the following January 15
August examinations: the following February 28/29
December examinations: the following June 30

## Student Records

The "official student academic record" is maintained by the Faculty, which shall designate the document, form or medium containing the official version and how official copies of such information will be identified.

Student academic records refer to information concerning admission to, and academic performance at, this University. The "official student academic record" contains:
I. personal information which is required in the administration of official student academic records such as name, student number, citizenship, social insurance number;
2. registration and enrolment information;
3. results for each course and academic period;
4. narrative evaluations of a student's academic performance, used to judge his or her progress;
5. basis for a student's admission such as the application for admission and supporting documents;
6. results of petitions and appeals;
7. medical information relevant to a student's academic performance, furnished at the request or with the consent of the student;
8. letters of reference, whether or not they have been provided on the understanding that they shall be maintained in confidence;
9. personal and biographical information such as address, and telephone number.

## Access to Student Records

I.Access by a student.
(i) Students may examine and have copies made of their academic record as defined above, with the exception of those portions of the record which comprise letters of reference which have been provided or obtained on the expressed or implied understanding that they shall be maintained in confidence. A student may however, be advised of the identity of the authors of any confidential letters contained in his or her official academic record.
(ii) Students' requests to examine any part of their "official student academic record" shall be made in writing and shall be complied with within thirty days of receipt.
(iii) Students may challenge the accuracy of their academic record with the exception of the materials specifically excluded above and may have their record supplemented with comments so long as the sources of such comments are identified and the official student academic record remains securely within the custody of the academic division. Reference to such comments would not necessarily appear on official academic reports such as the transcript or the Statement of Results. (Note that access to medical information shall only be granted to members of the teaching and administrative staff with the prior expressed or implied consent of the student and, if applicable, in the case of a medical assessment, the originator (physician, etc.) of such.)
(iv) It is assumed that all documents relating to petitions and appeals and not provided on the understanding that they shall be maintained in confidence will be retained within the division, and when needed by the student, will be made freely available. In addition, The Statutory Powers Procedure Act, I97I of Ontario requires that where the
good character, propriety of conduct or competence of a party is in issue in any proceedings in a tribunal to which the Act applies (such as the Academic Appeals Board of the Governing Council), the part is entitled to be furnished prior to the hearing with "reasonable information" of any allegations with respect hereto.

## 2. Access by University Staff.

Members of the teaching and administrative staff of the University shall have access to relevant portions of a student's academic record in the performance of their duties.

## 3. Access by $U$ of $T$ campus organizations.

Student organizations in the U. of T. may have access to all information available freely to persons outside the university and to the residence address and telephone number of the student, for the legitimate internal use of that organization.

## 4. Access by Others

a) By the act of registration, a student gives implicit consent for a minimal amount of information to be made freely available to all inquirers:

- the academic divisions(s) and the session(s) in which a student is or has been registered, - degree(s) received and date(s) of convocation.
b) Any other information shall be released to other persons and agencies only with the student's prior expressed written consent, or on the presentation of a court order, or in accordance with the requirements of professional licensing or certification bodies or the Ministry of Colleges and Universities for an annual enrolment audit, or otherwise under compulsion of law. A record shall be kept of permissions granted to any persons or agencies outside the university for access to a student's academic record.
c) General statistical material drawn from academic records not disclosing the identities of students may be released for research and informational purposes.


## Refusal of Access

The University reserves the right to withhold transcripts of students who have outstanding debts.

## Custody of Student Academic Records

Academic records are normally under the custodial responsibility of the academic divisions. Seventy-five years after a student has ceased to be registered, all such records become the responsibility of the University Archivist and become open to researchers authorized by the University of Toronto.

## Personal Information

Personal information is a vital part of the student's official University record and is used to issue statements of results, transcripts, graduation information, diplomas and other official documents. The University is also required by law to collect certain information for the Federal and Provincial Governments; this is reported only in aggregate form and is considered confidential by the University.

Any change in the following must therefore be reported immediately to the College Registrar:
I. legal name;
2. Social Insurance Number;
3. citizenship status in Canada;

## Mailing Address

Address information (mailing and permanenet) must be viewed and changed on the Student Web Service (at www.rosi.utoronto. ca) or in your College Registrar's Office. It is the student's responsibility to ensure that the mailing address is kept up-todate on the SWS.

## E-Mail Address

As a student at the University of Toronto, you have automatic access to the Information Commons, which is your passport to e-mail, the library and the Internet. Once you have your TCard, you must activate your University of Toronto e-mail account. Setting up a UTORmail account is mandatory; see "University Policy on Official Correspondence with Students" on the next page.

## I-Card

The T Card is a wallet-sized card bearing the student's photograph, and serves as evidence of registration in the Faculty and as a library card. It is used for identification purposes within the University, such as Faculty examinations, student activities, and Athletic Association privileges. The loss of the card must be reported promptly to the College Registrar, and the card must be surrendered if a student withdraws from the University or transfers to another College or Faculty. There is a fee for the replacement of lost cards.

## Statement of Results

Statements of Results are sent to students at their mailing address as it appears on ROSI at the end of the Winter and Summer Sessions. Students should expect to receive their Statements within six weeks of the end of the examination period, and should contact their College Registrar immediately if the Statement of Results has not been received. Statements of Results are not issued at the end of the Fall Session. Results for "F" courses are available on the Student Web Service in January for the Fall Session and in July for the first subsession of the Summer Session.

## Iranscripts

The transcript of a student's record reports courses in progress and the standing in all courses attempted along with course average, information about the student's academic status including record of suspension and refusal of further registration, and completion of degree requirements and of subject POSt(s).
Final course results are added to each student's record at the end of each session and Summer subsession. GPAs are calculated at the end of each session. Individual courses that a student cancels within the normal time limit are not shown.
Copies of the transcript are issued at the student's request, subject to reasonable notice. In accordance with the University's policy on access to student records, the student's signature is required for the release of the record.

The University of Toronto issues only a consolidated transcript,

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including a student's total academic record at the University. Students may request consolidated transcripts on the Web at: www.rosi.utoronto.ca. Requests may also be made in person or by writing to:

University of Toronto Transcript Centre
Room I006, Sidney Smith Hall
100 St. George Street
Toronto, ON M5S 3G3.
A fee of $\$ 10.00$ (subject to change), which includes GST., is charged for each transcript. Cheques and money orders should be made payable to the University of Toronto. Students must indicate at the time of the request if the purpose of the transcript is for enclosure in a self-administered application. Such transcripts are issued in specially sealed envelopes.

The University of Toronto cannot be responsible for transcripts lost or delayed in the mail. Transcripts are not issued for students who have outstanding financial obligations with the University.

## University Policy on Official Correspondence with Students

The University and its divisions may use the postal mail system and/or electronic message services (e.g., electronic mail and other computer-based on-line correspondence systems) as mechanisms for delivering official correspondence to students.

Official correspondence may include, but is not limited to, matters related to students' participation in their academic programs, important information concerning University and program scheduling, fees information, and other matters concerning the administration and governance of the University.

## Postal Addresses and Electronic Mail Accounts

Students are responsible for maintaining and advising the University, on the University's student information system (currently ROSI), of a current and valid postal address as well as the address for a University-issued electronic mail account that meets a standard of service set by the Vice-President and Provost.

Failure to do so may result in a student missing important information and will not be considered an acceptable rationale for failing to receive official correspondence from the University.

## University rights and responsibilities regarding official

 correspondenceThe University provides centrally supported technical services and the infrastructure to make electronic mail and/ or on-line communications systems available to students. University correspondence delivered by electronic mail is subject to the same public information, privacy and records retention requirements and policies as are other university correspondence and student records. The University's expectations concerning use of information and communication technology are articulated in the guidelines on Appropriate Use of Information and Communication Technology (available on the web site of the Office of the Vice-President and Provost: http://www.provost.utoronto.ca/English/Appropriate-Use-of-Information-and-Communication-Technology.html.)

## Students' rights and responsibilities regarding retrieval of official correspondence

Students are expected to monitor and retrieve their mail, including electronic messaging account[s] issued to them by the University, on a frequent and consistent basis. Students have the responsibility to recognize that certain communications may be time-critical. Students have the right to forward their University-issued electronic mail account to another electronic mail service provider address but remain responsible for ensuring that all University electronic message communication sent to the official University-issued account is received and read.

## University Grading Practices Policy

Purpose
The purpose of the University Grading Practices Policy is to ensure:
a) that grading practices throughout the University reflect appropriate academic standards;
b) that the evaluation of student performance is made in a fair and objective manner against these academic standards;
c) that the academic standing of every student can be accurately assessed even when courses have been taken in different divisions of the University and evaluated according to different grade scales.

## Application of Policy

The Policy applies to all individuals and committees taking part in the evaluation of student performance in degree, diploma, and certificate credit courses (hereafter referred to as courses).

## Amendment to Policy

Amendments to the Policy shall be recommended to the Academic Board. Changes to the divisional regulations on grading practices shall be forwarded to the Committee on Academic Policy and Programs.

## Distribution of Policy

A copy of the Grading Practices Policy as well as the description of the grade scales and the substance of divisional regulations indicated in Part II of this Policy shall be published in the Calendar of the division. Similarly a copy shall be given to all students upon initial registration and to all instructors and others, including teaching assistants, involved in the evaluation of student performance. The Policy is in three parts: Part I deals with grades, Part II outlines grading procedures to be adhered to in divisional regulations adopted as part of this Policy, and Part III is an administrative appendix that is available on the Governing Council website: www.utoronto.ca/govencl/pap/ policies/grading.pdf.

## Part I: Grades

## Meaning of Grades

Grades are a measure of the performance of a student in individual courses. Each student shall be judged on the basis of how well he or she has command of the course materials.
I.I A grade assigned in a course is not an assessment of standing within a program of studies. To determine the requirements for credit and standing in a program of studies, the academic regulations of the division in which the program is offered should be consulted.
I. 2 Grades for each course shall be assigned with reference to the following meanings (which may be expanded in the divisional regulations under Part II): Excellent, Good, Adequate, Marginal, Inadequate.

## Grade Scales

1.3 Once a judgment on the performance of the student has been made, the following grade scales are to be used:
a) the refined letter grade scale: $A+, A, A-, B+, B, B-, C+C$, C-, D+, D, D-, F;
b) the numerical scale of marks, consisting of all integers from 0-100; and/or
c) for graduate divisions only, a truncated refined letter grade scale in which FZ replaces the C, D and F grades in (a) above.
d) the scales Honours/Pass/Fail and Credit/No Credit.

## Grades vs. Scores

I.4 Grades should always be based on the approved grade scales. However, students may find that on any one evaluation they may receive a numerical or letter mark that reflects the score achieved on the test or essay. The cumulative scores may not be directly identified with the final grade. Grades are final only after review by the divisional review committee described below. (NOTE: A table of correspondence and a translation table are defined (under "Grading Regulations" on page 478) for each of the letter grade scales referred to in I.3(a) in order to allow the conversion, when necessary, of a grade assigned from one scale to the corresponding grade in another. It should be noted that these tables are not to be used to translate a score to a grade directly.)

## Grade Reporting

I. 5 Grades will be assigned according to the numerical scale of marks referred to in 1.3 (b) above, and converted to the refined letter grade scale of I.3(a) above. The H/P/FL and CR/NCR scales of I.3(d) above may also be used. However, the grades assigned in a course must all be from the same scale.
1.6 All non-grade designators used in reporting course results must correspond to the University-wide standard. A list of the currently approved designators and their meanings is given in the Appendix A. 2
I. 7 The information in grade reports and transcripts must be communicated to the user, whether within or outside the University, in a clear and meaningful way. To that end, transcripts must include:
a) an enrolment history, which traces chronologically the student's entire participation at the University;
b) a "grade point average" based on a 4-point scale for all undergraduate divisions (Note: grade point average values will be assigned as follows $A+/ A=4.0 ; A-=3.7, B+$ $=3.3, \mathrm{~B}=3.0, \mathrm{~B}-=2.7, \mathrm{C}+=2.3, \mathrm{C}=2.0, \mathrm{C}-=1.7, \mathrm{D}+=$ I.3, $\mathrm{D}=1.0, \mathrm{D}-=0.7, \mathrm{~F}=0.0$ ),
c) an average grade for each course expressed using the refined letter grade scale (Note: these calculations should be restricted to courses of a specific size),
d) both numeric mark and its letter grade equivalent, where possible, for all courses,
e) course weight values, expressed using a uniform system of values allowing for the relative values needed by each division,
f) transfer credits granted,
g) academic honours, scholarships and awards sanctioned by the University,
h) a comprehensive guide explaining all grades and symbols used on the transcript.

## Part ll: Grading Procedures

## Approval of Grades

Grades shall be recommended by the instructor to the chair or division head. The grades shall then be reviewed and approved following the divisional review procedure. Grades shall not be reported or released to students as official until the divisional review procedure has been carried out. The divisional review constitutes final approval of grades except when grades are changed on appeal.

## Divisional Review Committee

II.I In each division, a committee chaired by the divisional head or designate, and where appropriate, an additional committee structure, with the chairs (or their designates) of departments or other academic units of divisions serving as chairs, shall:
a) administer the implementation of the University Grading Practices Policy at the divisional level and oversee the general consistency of grading procedures with the division;
b) approve and administer the University's specific regulations concerning the grade scale or scales to be used, the assignment of non-grade designators for course work, classroom procedures and approval methods of evaluation;
c) review, adjust and approve course grades recommended by instructors. The grades recommended for any individual student in the professional faculties may be adjusted according to his or her performance in the course or program as determined by the committee. The divisional committee has the final responsibility for assigning the official course grade.

## Classroom Procedures

II. 2 To ensure that the method of evaluation in every course reflects appropriate academic standards and fairness to students, divisional regulations governing classroom procedures must be consistent with the practices below.
a) As early as possible in each course (and no later than the division's last date for course enrolment) the instructor shall make available to the class, and shall file with the division or department, the methods by which student performance shall be evaluated. This should include whether the methods of evaluation shall be essays, tests, examinations, etc., the relative weight of these methods in relation to the overall score, and the timing of each major evaluation.
b) After the methods of evaluation have been known, the instructor may not change them or their relative weight without the consent of at least a simple majority of the students enrolled in the course. Any changes shall be

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reported to the division or the department. c) Student performance in a course shall be assessed on more than one occasion. No one essay, test, examination, etc. should have a value of more than $80 \%$ of the grade. Criteria for exemption may be determined by the division.
d) In courses that meet regularly as a class there shall be an examination (or examinations) conducted formally under divisional auspices and worth (alone or in the aggregate) at least one-third of the final grade. Criteria for exemption may be determined by the division. The relative value of each part of an examination shall be indicated to the student. In the case of a written examination, the value shall be indicated on the examination paper.
e) Commentary on assessed term work and time for discussion of it shall be made available to students.
f) At least one piece of term work which is a part of the evaluation of a student performance, whether essay, lab report, review, etc., shall be returned to the student prior to the last date for cancelling the course without academic penalty.
g) Grades shall be recommended by the instructor in reference to the approved grades scales on the basis of each student's overall performance.
In formulating their own regulations divisions may add to items (a) to (g) and may adopt fuller or more specific provisions, for example in place of such terms as "a simple majority" (b), "onethird of the final grade" (d), or in particularizing the evaluation methods referred to in (a) and (b).

## Procedures in the Event of Disruptions

II. 3 The following principles shall apply in the event of disruption of the academic program:
(i) The academic integrity of academic programs must be honoured; and
(ii) Students must be treated in a fair manner recognizing their freedom of choice to attend class or not without penalty.

## Procedures:

a) The Vice-President and Provost, or the Academic Board, shall declare when a disruption of the academic program has occurred. The Provost shall take steps to inform the University community at large of the changes to be implemented, and will report to the Committee on Academic Policy and Programs regarding the implementation of the procedures and changes to the status of the academic programs.
b) Individual instructors or multi-section co-ordinators responsible for courses that are disrupted shall determine, as the disruption proceeds, whether any changes to classroom procedures are needed to complete the course.
c) Changes to the classroom procedures should, where possible, first be discussed with students prior to the class in which a vote of the students present on the proposed changes is to be taken. Changes agreed upon by consensus should be forwarded to the department or division with a report on the attendance at the class where the vote was taken.
d) Where consensus on changes has not been arrived at, or where a vote is not feasible, the instructor, after class discussion, will provide the division head or chair of the
department in multi-departmental faculties, with his or her recommendation, along with the results of the classroom votes. The chair or division head shall then make a decision.
e) Where classes are not able to convene, the instructor, with the prior approval of the chair in multi-departmental faculties or the division head, shall make changes deemed necessary to the classroom procedures. In the absence of the instructor such changes will be made by the divisional head and require the approval of the Provost. Where courses are to be cancelled, approval of the divisional council is required. If the divisional council cannot meet, approval of the division head, or in the absence of the division head, the approval of the Provost is required.
f) Students must be informed of changes to classroom procedures. This may be done by circulating the changes in writing to the class, posting in the departmental and faculty offices, reporting to the divisional council, as well as listing in the campus press. Should classes resume students must be informed, at class, of any changes made during the disruption.
g) Where a declared disruption occurs in a specific course after the last date to drop courses for the academic term or session, students who do not wish to complete the course(s) during that term or session may, prior to the last day of classes, withdraw without academic penalty. Students who cancel a course prior to the last day of classes as a result of declared disruption in that course shall receive a full refund of the course tuition fee.
h) Where students have not attended classes that are meeting, they nonetheless remain responsible for the course work and meeting course requirements. However, where possible, reasonable extension of deadlines for the course requirements, or provision of make-up tests shall be made and reasonable alternative access to material covered should be provided.
i) A student who considers that disruption has unreasonably affected his or her grade in a course may appeal the grade following the procedures as set out in each division. If the petition is approved, the student's original grade will be replaced by either an assessed grade or by a grade of CR/NCR, or as deemed appropriate in the particular circumstances.

## Assessment in Clinical and Field Settings

II. 4 Divisions may make reasonable exemptions to the classroom procedures described above in circumstances such as field or clinical courses where adherence to these procedures is not possible. Nevertheless, it is obligatory that the assessment of the performance of students in clinical or field settings should be fair, humane, valid, reliable and in accordance with the principles enunciated in the University Grading Practices Policy. Accordingly, where a student's performance in a clinical or field setting is to be assessed for credit, the evaluation must encompass as a minimum:
a) a formal statement describing the evaluation process, including the criteria to be used in assessing the performance of students and the appeal mechanisms available. This statement should be available to all students before or at the beginning of the clinical or field experience;
b) a mid-way performance evaluation with feedback to the student;
c) written documentation of the final assessment.

In addition, for such clinical and field experiences, divisions must ensure that:
d) clinical and field assessors are fully informed regarding University, divisional and course policies concerning evaluation procedures, including the specific assessment procedures to be applied in any particular field or clinical setting.
Any exception from the above would require a divisional request with explanation for approval by the Governing Council.

## Grade Review and Approval Process

II. 5 The following principles and procedures shall govern the grade review and approval process.
a) The distribution of grades in any course shall not be predetermined by any system of quotas that specifies the number or percentage of grades allowable at any grade level.
b) However, a division may provide broad limits to instructors setting out a reasonable distribution of grades in the division or department. Such broad limits shall recognize that considerable variance in class grades is not unusual. The division may request an explanation of any grades for a course that exceed the limits and hence appear not to be based on the approved grade scales or otherwise appear anomalous in reference to the Policy. It is understood that this section shall only be used when the class size is thirty students or greater. Each division shall make known in the divisional Calendar the existence of any such limits.
c) The criterion that the Divisional Review Committee shall employ in its evaluation is whether the instructor has followed the University Grading Practices Policy. The Review committee shall not normally adjust grades unless the consequences of allowing the grades to stand would be injurious to the standards of the University, or the class in general.
d) Membership on the Divisional Review Committee may include students but should not include members of the divisional appeals committee(s).
e) Where grades have been adjusted by a divisional committee, the students as well as the instructor shall be informed. On request, the students or the instructor shall be given the reason for the adjustment of grades, a description of the methodology used to adjust the grades, and a description of the divisional appeal procedure.
f) Where a departmental review committee changes course grades, the faculty office shall be so informed. Having done so, the faculty office shall relay this information, upon request, to the students or the instructor with a description as to the reason for the change and the methodology used.
g) Past statistical data, including drop-out rates, mean arithmetic average, etc., should be provided to the Divisional Review Committee as background information where available. The committee will not use this information exclusively to judge whether a specific grades distribution is anomalous. Rather, the information should provide part of the basis for an overall review of grades in a division.
h) Where class grades have been changed, or when the Divisional Review Committee had reservations about the grades, the issue will be taken up with the instructor by the division or department head, with a view to ensuring that the Grading Practices Policy is followed in future.

## Appeal Procedure

II. 6 Every division shall establish divisional appeal procedures. Students may appeal grades according to the procedures established for that purpose in the division. The appeal may be made whether marks have been altered by the review process or not. These procedures shall be outlined in the divisional Calendar, and available upon request at the faculty or registrar's office.

## Student Access to Examination Papers

a) All divisions should provide access to copies of the previous year's final examination papers and other years' papers where feasible. Exemptions may be granted by an appropriate committee of the division or department.
b) IAll divisions should provide students with the opportunity within a reasonable time to review their examination paper where feasible.A recovery fee should be set to cover administrative costs including photocopying.
c) IAll divisions should provide, in addition to the customary re-reading of papers and the re-checking of marks, the opportunity for students to petition for the re-reading of their examination where feasible. A cost recovery fee should be set and returned where appropriate.

## Conflict of Interest

II. 8

Where the instructor or a student has a conflict of interest, or is in a situation where a fair and objective assessment may not be possible, this should be disclosed to the chair or division head who shall take steps to ensure fairness and objectivity.

## Discipline: Code of Behaviour on Academic Matters

The Governing Council of the University of Toronto has approved a Code of Behaviour, which sets out clearly the standard of conduct in academic matters expected of members of the University community. The Code is enforced by the Provost and the Disciplinary Tribunal. Below are extracts from the Code, covering offences, sanctions and procedures as they apply to students. The full text is available from the Office of the Dean, and the Offices of College Registrars.

The University and its members have a responsibility to ensure that a climate that might encourage, or conditions that might enable, cheating, misrepresentation or unfairness not be tolerated. To this end all must acknowledge that seeking credit or other advantages by fraud or misrepresentation, or seeking to disadvantage others by disruptive behaviour is unacceptable, as is any dishonesty or unfairness in dealing with the work or record of a student.

Wherever in the Code an offence is described as depending on "knowing", the offence shall likewise be deemed to have

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committed if the person ought reasonably to have known.

## B.I. Offences

I. It shall be an offence for a student knowingly:
a) to forge or in any other way alter or falsify any document or evidence required for admission to the University, or to utter, circulate or make use of any such forged, altered or falsified document, whether the record be in print or electronic form;
b) to use or possess an unauthorized aid or aids or obtain unauthorized assistance in any academic examination or term test or in connection with any other form of academic work;
c) to personate another person, or to have another person personate, at any academic examination or term test or in connection with any other form of academic work;
d) to represent as one's own any idea or expression of an idea or work of another in any academic examination or term test or in connection with any other form of academic work, i.e. to commit plagiarism;
e) to submit, without the knowledge and approval of the instructor to whom it is submitted, any academic work for which credit has previously been obtained or is being sought in another course or program of study in the University or elsewhere;
f) to submit for credit any academic work containing a purported statement of fact or reference to a source which has been concocted.
2. It shall be an offence for a faculty member knowingly:
a) to approve any of the previously described offences;
b) to evaluate an application for admission or transfer to a course or program of study by other than duly established and published criteria;
c) to evaluate academic work by a student by reference to any criterion that does not relate to its merit, to the time within which it is to be submitted or to the manner in which it is to be performed.
3. It shall be an offence for a faculty member and student alike knowingly:
a) to forge or in any other way alter or falsify any academic record, or to utter, circulate or make use of any such forged, altered or falsified record, whether the record be in print or electronic form.
b) to engage in any form of cheating, academic dishonesty or misconduct, fraud or misrepresentation not herein otherwise described, in order to obtain academic credit or other academic advantage of any kind.
4. A graduate of the University may be charged with any of the above offences committed intentionally while he or she was an active student, when, in the opinion of the Provost, the offence, if detected, would have resulted in a sanction sufficiently severe that the degree would not have been granted at the time it was.

## B.II. Parties to Offences

## I.

a)Every member is a party to an offence under this Code who knowingly:
i) actually commits it;
ii) does or omits to do anything for the purpose of aiding or assisting another member to commit the
offence;
(iii) does or omits to do anything for the purpose of aiding or assisting any other person who, if that person were a member, would have committed the offence;
(iv) abets, counsels, procures or conspires with another member to commit or be a party to an offence; or (v) abets, counsels, procures or conspires with any other person who, if that person were a member, would have committed or have been a part to the offence.
b) Every party to an offence under this Code is liable upon admission of the commission thereof, or upon conviction, as the case may be, to the sanctions applicable to that offence.
2. Every member who, having an intent to commit an offence under this Code, does or omits to do anything for the purpose of carrying out that intention (other than mere preparation to commit the offence) is guilty of an attempt to commit the offence and liable upon conviction to the same sanctions as if he or she had committed the offence.
3. When a group is found guilty of an offence under this Code, every officer, director or agent of the group, being a member of the University, who directed, authorized or participated in the commission of the offence is a party to and guilty of the offence and is liable upon conviction to the sanctions provided for the offence.

## C.I.(a) Divisional Procedures

NOTE:Where a student commits an offence, the faculty in which the student is registered has responsibility over the student in the matter. In the case of Scarborough and Erindale colleges, the college is deemed to be the faculty.
I. No hearing within the meaning of Section 2 of the Statutory Powers of Procedures Act is required for the purposes of, or in connection with, any of the discussions, meetings and determinations referred to in Section C.I.(a), and such discussions, meetings and determinations are not proceedings of the Tribunal.
2. Where an instructor has reasonable grounds to believe that an academic offence has been committed by a student, the instructor shall so inform the student immediately after learning of the act or conduct complained of, giving reasons, and invite the student to discuss the matter. Nothing the student says in such a discussion may be used or receivable in evidence against the student.
3. If after such discussion, the instructor is satisfied that no academic offence has been committed, he or she shall so inform the student and no further action shall be taken in the matter by the instructor, unless fresh evidence comes to the attention of the instructor, in which case he or she may again proceed in accordance with subsection 2.
4. If after such discussion, the instructor believes that an academic offence has been committed by the student, or if the student fails or neglects to respond to the invitation for discussion, the instructor shall make a report of the matter to the department chair or through the department chair to the dean. (See also Section C.I.(B)I.)
5. When the dean or the department chair, as the case may be, has been so informed, he or she shall notify the student in writing accordingly, provide him or her with a copy of the Code, and subsequently afford the student an opportunity for discussion of the matter. In the case of the dean being informed, the chair of the department and the
instructor shall be invited by the dean to be present at the meeting with the student. The dean shall conduct the interview.
6. Before proceeding with the meeting, the dean shall inform the student that he or she is entitled to seek advice, or to be accompanied by counsel at the meeting, before making, and is not obliged to make, any statement or admission, but shall warn that if he or she makes any statement or admission in the meeting, it may be used or receivable in evidence against the student in the hearing of any charge with respect to the offence or alleged offence in question. The dean shall also advise the student, without further comment or discussion, of the sanctions that may be imposed under Section C.I.(B), and that the dean is not obliged to impose a sanction but may instead request that the Provost lay a charge against the student. Where such advice and warning have been given, the statements and admissions, if any, made in such a meeting may be used or received in evidence against the student in any such hearing.
7. If the dean, on the advice of the department chair and the instructor, or if the department chair, on the advice of the instructor, subsequently decides that no academic offence has been committed and that no further action in the matter is required, the student shall be so informed in writing and the student's work shall be accepted for normal evaluation or, if the student was prevented from withdrawing from the course by the withdrawal date, he or she shall be allowed to do so. Thereafter, the matter shall not be introduced into evidence at a Tribunal hearing for another offence.
8. If the student admits the alleged offence, the dean or the department chair may either impose the sanction that he or she considers appropriate under Section C.I.(B) or refer the matter to the dean or Provost, as the case may be, and in either event shall inform the student in writing accordingly. No further action in the matter shall be taken by the instructor, the department chair or the dean if the dean imposes a sanction.
9. If the student is dissatisfied with a sanction imposed by the department chair or the dean, as the case may be, the student may refer the matter to the dean or Provost, as the case may be, for consideration.
IO. If the student does not admit the alleged offence, the dean may, after consultation with the instructor and the department chair, requires that the Provost lay a charge against the student. If the Provost agrees to lay a charge, the case shall then proceed to the Trial Division of the Tribunal.
II. Normally, decanal procedures will not be examined in a hearing before the Tribunal. A failure to carry out the procedures referred to in this Section, or any defect or irregularity in such procedures, shall not invalidate any subsequent proceedings of or before the Tribunal, unless the chair of the hearing considers that such failure, defect or irregularity resulted in a substantial wrong, detriment or prejudice to the accused. The chair will determine at the opening of the hearing whether there is going to be any objection to defect, failure or irregularity.
12. No degree, diploma or certificate of the University shall be conferred or awarded, nor shall a student be allowed to withdraw from a course from the time of the alleged offence until the final disposition of the accusation. However, a student shall be permitted to use University
facilities while a decision is pending, unless there are valid reasons for the dean to bar him or her from a facility. When or at any time after an accusation has been reported to the dean, he or she may cause a notation to be recorded on the student's academic record and transcript in a course and/or the student's academic status is under review. A student upon whom a sanction has been imposed by the dean or the department chair under Section C.I.(B) or who has been convicted by the Tribunal shall not be allowed to withdraw from a course so as to avoid the sanction imposed.
13. A record of cases disposed of under Section C.I.(A) and of the sanctions imposed shall be kept in the academic unit concerned and may be referred to by the dean in connection with a decision to prosecute, or by the prosecution in making representations as to the sanction or sanctions to be imposed by the Tribunal, for any subsequent offence committed by the student. Information on such cases shall be available to other academic units upon request and such cases shall be reported by the dean to the Secretary of the Tribunal for use in the Provost's annual report to the Academic Board. The dean may contact the Secretary of the Tribunal for advice or for information on cases disposed of under Section C.II. hereof.
14. Where a proctor or invigilator, who is not a faculty member, has reason to believe that an academic offence has been committed by a student at an examination or test, the proctor or invigilator shall so inform the student's dean or department chair, as the case may be, who shall proceed as if he or she were an instructor, by analogy to the other provisions of this section.
15. In the case of alleged offences not covered by the above and not involving the submission of academic work, such as those concerning forgery or uttering, library or computer material or library or computer resources, and in cases involving cancellation, recall or suspension of a degree, diploma or certificate, the procedure shall be regulated by analogy to the other procedures of this section.

## C.l.(b) Divisional Sanctions

I. In an assignment worth 10 percent or less of the final grade, the department chair may handle the matter if:
a) the student admits guilt; and
b) the assignment of a penalty is limited to at most a mark of zero for the piece of work.
If the student does not admit guilt, or if the department chair chooses, the matter shall be brought before the dean.
2. One or more of the following sanctions may be imposed by the dean where a student admits to the commission of an offence:
a) an oral and/or written reprimand;
b) an oral and/or written reprimand and, with the permission of the instructor, the resubmission of the piece of academic work, in respect of which the offence was committed, for evaluation. Such a sanction shall be imposed only for minor offences and where the student has committed no previous offence;
c) assignment of a grade of zero or a failure for the piece of academic work in respect of which the offence was committed;

## Rules \& Regulations

d) assignment of a penalty in the form of a reduction of the final grade in the course in respect of which the offence was committed;
e) denial of privileges to use any facility of the University, including library and computer facilities;
f) a monetary fine to cover the costs of replacing damaged property or misused supplies in respect of which the offence was committed;
g) assignment of a grade of zero or a failure for the course in respect of which the offence was committed;
h) suspension from attendance in a course or courses, a program, an academic division or unit, or the University for a period of not more than twelve months. Where a student has not completed a course or courses in respect of which an offence has not been committed, withdrawal from the course or courses without academic penalty shall be allowed.
3. The dean shall have the power to record any sanction imposed on the student's academic record and transcript for such length of time as he or she considers appropriate. However, the sanctions of suspension or a notation specifying academic misconduct as the reason for a grade of zero for a course shall normally be recorded for a period of five years.
4. The Provost shall, from time to time, indicate appropriate sanctions for certain offences. These guidelines shall be sent for information to the Academic Board and attached to the Code as Appendix "C".

## Conduct: Code of Student Conduct

## Summary of Code of Student Conduct

Non-academic offences are defined in the University's Code of Student Conduct (2002), the full text of which may be obtained from the Office of the Assistant Vice-President, Student Affairs. A summary of the Code is provided below.

Extracts from the Code are printed here in ordinary type, and additional comments etc., are in italics. References in square brackets are to original section numbering in the Code.

## [B.] Offences

The following offences constitute conduct that shall be deemed to be offences under this Code, when committed by a student of the University of Toronto, provided that such conduct:
(i) has not been dealt with as failure to meet standards of professional conduct as required by a college, faculty or school; and
(ii) is not specifically assigned to the jurisdiction of the University Tribunal, as in the case of offences described in the Code of Behaviour on Academic Matters, or to another disciplinary body within the University of Toronto, as in the case of sexual harassment as described in the Policy and Procedures: Sexual Harassment; or to a divisional disciplinary body, such as a residence council or a recreational athletics disciplinary body; or is covered under these policies but which is deemed by the head of the division to be more appropriately handled by the Code of Student Conduct; and
(iii) except as otherwise provided herein, occurs on premises of the University of Toronto or elsewhere in the course of activities sponsored by the University of Toronto or by any of its divisions; and
(iv) has not been dealt with under provisions for the discipline of students with respect to University offices and services whose procedures apply to students in several academic divisions, such as University residences, libraries or athletic and recreational facilities.

## I. Offences Against Persons

a) No person shall assault another person sexually or threaten any other person with sexual assault.
b) No person shall otherwise assault another person, threaten any other person with bodily harm, or knowingly cause any other person to fear bodily harm.
c) No person shall knowingly create a condition that unnecessarily endangers the health or safety of other persons.
d) No person shall threaten any other person with damage to such person's property, or knowingly cause any other person to fear damage to her or his property.
e) No person shall engage in a course of vexatious conduct that is directed at one or more specific individuals, and that is based on the race, ancestry, place of origin, colour, ethnic origin, citizenship, sex, sexual orientation, creed, age, marital status, family status, handicap, receipt of public assistance or record of offences of that individual or those individuals, and that is known to be unwelcome, and that exceeds the bounds of freedom of expression or academic freedom as these are understood in University policies and accepted practices, including but not restricted to, those explicitly adopted.
(Note: terms in this section are to be understood as they are defined or used in the Ontario Human Rights Code. Vexatious conduct that is based on sex or sexual orientation is considered an offence under the University's Policy and Procedures: Sexual Harassment. If the Sexual Harassment Officer believes, after consultation with relevant parties, that a complaint based on sex or sexual orientation would be better handled under the Code of Student Conduct, the Officer may refer the matter to the appropriate head of division.)
f) (i) No person shall, by engaging in the conduct described in subsection (ii) below, whether on the premises of the University or away from the premises of the University, cause another person or persons to fear for their safety or the safety of another person known to them while on the premises of the University of Toronto or in the course of activities sponsored by the University of Toronto or by any of its divisions, or cause another person or persons to be impeded in exercising the freedom to participate reasonably in the programs of the University and in activities in or on the University premises, knowing that their conduct will cause such fear, or recklessly as to whether their conduct causes such fear.
(ii) The conduct mentioned in subsection (i) consists of:
a) repeatedly following from place to place the other person or anyone known to them;
b) repeatedly and persistently communicating with, either directly or indirectly, the other person or anyone known to them;
c) besetting or repeatedly watching the dwelling-house, or place where the other person, or anyone known to them, resides, works, carries on business or happens to be; or
d) engaging in threatening conduct directed at the other person or any member of the family, friends or colleagues of the other person.

## 2. Disruption

No person shall cause by action, threat or otherwise, a disturbance that the member knows obstructs any activity organized by the University of Toronto or by any of its divisions, or the right of another member or members to carry on their legitimate activities, to speak or to associate with others.
For example, peaceful picketing or other activity outside a class or meeting that does not substantially interfere with the communication inside, or impede access to the meeting, is an acceptable expression of dissent. And silent or symbolic protest is not to be considered disruption under this Code. But noise that obstructs the conduct of a meeting or forcible blocking of access to an activity constitutes disruption.

## 3. Offences Involving Property

a) No person shall knowingly take, destroy or damage premises of the University of Toronto.
b) No person shall knowingly take, destroy or damage any physical property that is not her or his own.
c) No person shall knowingly destroy or damage information or intellectual property belonging to the University of Toronto or to any of its members.
d) No person, in any manner whatsoever, shall knowingly deface the inside or outside of any building of the University of Toronto.
e) No person, knowing the effects or property to have been appropriated without authorization, shall possess effects or property of the University of Toronto.
f) No person, knowing the effects or property to have been appropriated without authorization, shall possess any property that is not her or his own.
g) No person shall knowingly create a condition that unnecessarily endangers or threatens destruction of the property of the University of Toronto or of any of its members.

## 4. Unauthorized Entry or Presence

No person shall, contrary to the expressed instruction of a person or persons authorized to give such instruction, or with intent to damage or destroy the premises of the University of Toronto or damage, destroy or steal any property on the premises of the University of Toronto that is not her or his own, or without just cause knowingly enter or remain in or on any such premises.

## 5. Unauthorized Use of University Facilities, Equipment or Services

a) No person shall knowingly use any facility, equipment or service of the University of Toronto contrary to the expressed instruction of a person or persons authorized to give such instruction, or without just cause.
b) No person shall knowingly gain access to or use any University computing or internal or external communications facility to which legitimate authorization has not been granted. No person shall use any such facility for any commercial, disruptive or unauthorized purpose.
c) No person shall knowingly mutilate, misplace, misfile, or render inoperable any stored information such as books, film, data files or programs from a library, computer or other such information storage, processing or retrieval system.

## 6. False Charges

No person shall knowingly or maliciously bring a false charge against any member of the University of Toronto under this Code.

## 7. Aiding in the Commission of an Offence

No person shall counsel, procure, conspire with or aid a person in the commission of an offence defined in this Code.

## 8. Refusal to Comply with Sanctions

No person found to have committed an offence under this Code shall refuse to comply with a sanction or sanctions imposed under the procedures of this Code.

## 9. Unauthorized Possession or Use of Firearms or Ammunition

No person other than a peace officer or a member of the Canadian Forces acting in the course of duty shall possess or use any firearm or ammunition on the premises of the University of Toronto without the permission of the officer of the University having authority to grant such permission.

## [C.] Procedures

## I. General

a) The University shall establish a centrally appointed pool of trained Investigating and Hearing Officers, who shall be available to the divisions, at the discretion of the head of the division, if that is considered appropriate or preferable for any reason.
b) Each division shall appoint an Investigating Officer and a Hearing Officer, who may be a student, staff or faculty member from that division.
c) Whether the incident is investigated locally or centrally, every effort shall be made to conclude the case through to delivery of a final decision within the University whithin one year form the alleged incident or misconduct.
d) Pursuant to the provisions of Section D., interim conditions may be imposed by the head of the division.
e) For purposes of confidential and central record keeping, a one-page summary of the outcome of all investigations, whether or not they have proceeded to a Hearing, shall be copied to the Judicial Affairs Officer in the Office of Governing Council.
f) Whenever possible and appropriate, informal resolution and mediation shall be used to resolve issues of individual behaviour before resort is made to formal disciplinarary procedures.

## Rules \& Regulations

## 2. Specific

a) An Investigating Officer shall be appointed for a term of up to three years by the principal, dean or director (hereinafter called "head") of each faculty, college or school in which students are registered (hereinafter called "division"), after consultation with the elected student leader or leaders of the division, to investigate complaints made against student members of that division. Investigating Officers shall hold office until their successors are appointed.
b) A Hearing Officer shall be appointed for a term of up to three years by the council of each division to decide on complaints under this Code made against student members of that division. Hearing Officers shall hold office until their successors are appointed.
c) If the Investigating Officer is unable to conduct an investigation, or the Hearing Officer is unable to conduct a hearing, or where the head of the division believes on reasonable grounds that the appointed officer is inappropriate to conduct the particular investigation or chair a particular hearing, then the head of the division shall seek ann appointment from the central pool for that particular case. If the head of the division intends to request either suspension from registration or expulsion from the University as a sanction in a particular case, or if the case appears to the head of the division to require a Hearing Officer with legal qualifications, then the Senior Chair of the University Tribunal may, on the application of the head of the division, appoint a legally qualified person as Hearing Officer for that particular case.
d) Where the head of the division has reason to believe that a non-academic offence as defined in this Code may have been committed by a student member or members of the division, the Investigating Officer will conduct an investigation into the case. After having completed the investigation, the Investigating Officer shall report on the investigation to the head of the division. If the head of the division concludes, on the basis of this report, that the student or students may have committed an offence under the Code of Student Conduct, the head of the division shall have the discretion to request that a hearing take place to determin whether the student or students have commited the offence alleged.
e) The hearing will be chaired by the Hearing Officer. The case will be presented by the Investigating Officer, who may be assisted and represented by legal counsel. If the right to a hearing is waived, or after a hearing, the Hearing Officer will rule on whether the student or students have committed the offence alleged and may impose one or more sanctions as listed below. The accused student or students may be assisted and represented by another person, who may be legal counsel.
f) Appeals against decisions of bodies acting under authority from the council of a division to hear cases arising out of residence codes of behaviour may be made to the Hearing Officer of the division, where provision therefor has been made by the council of that division.
g) Appeals against the decision of the Hearing Officer may be made to the Discipline Appeals Board of the Governing Council.
h) Where the head of a division has reason to believe that a non-academic offence may have been committed by a group of students including students from that division and from
another division or divisions, the head may consult with the head of the other division or divisions involved and may then agree that some or all of the cases will be investigated jointly by the Investigating Officers of the divisions of the students involved and that some or all of the cases will be heard together by the Hearing Officer of one of the divisions agreed upon by the head and presented by one of the Investigating Officers agreed upon by the heads.

## [D.] interim conditions and measures

## I. Interim Conditions: Ongoing Personal Safety

In those cases where the allegations of behaviour are serious and, if proven, could constitute a significant personal safety threat to other students or members of the University community, the head of the division is authorized to impose interim conditions that balance the need of complainants for safety with the requirement of fairness to the respondent student. The interim conditions are in no way to be construed as indicative of guilt, and shall remain in place until the charges are disposed of under the Code's procedures.

## 2. Interim Measures: Urgent Situations

In some circumstances, such as those involving serious threats or violent behaviour, it may be necessary to remove a student from the University. Where the head of the division has requested an investigatioin by the Investigating Officer and the investigation is pending, the Vice-President \& Provost (or delegate) may, on the advice of the head of the division, suspend the student or students temporarily for up to three working days if, in the opinion of the Vice-President \& Provost (or delegate), there is reasonable apprehension that the safety of others is endangered, damage to University properly is likely to occur, or the continued presence of the student(s) would be disruptive to the legitimate operations of the University. The student(s) shall be informed immediately in writing of the reasons for the suspensionb and shall be afforded the opportunity to respond. Any such temporary suspension may be reviewed by the Vice-President \& Provost (or delegate) within the three-day temporary suspension period, following a preliminary investigatioin, and either revoked or continued. If the suspension is continued, the student(s) may appeal to the Senior Chair (or delegate), or the Associate Chair (or delegate) of the University Tribunal, who shall hear and decide on the appeal within five days.

## [E.] Sanctions

The following sanctions or combinations of them may be imposed upon students found to have committed an offence under this Code. In addition, students found to have committed an offence may be placed on conduct probation for a period not to exceed one year, with the provision that one or more of the following sanctions will be applied if the conduct probation is violated.
I. Formal written reprimand.
2. Order for restitution, rectification or the payment of damages.
3. A fine or bond for good behaviour not to exceed $\$ 500$.
4. Requirement of public service work not to exceed 25 hours.
5. Denial of access to specified services, activities or facilities of the University for a period of up to one year.

The following two sanctions, which would directly affect a student's registration in a program, may be imposed only where it has been determined that the offence committed is of such a serious nature that the student's continued registration threatens the academic function of the University of Toronto or any of its divisions or the ability of other students to continue their programs of study. Where the sanction of suspension and/or expulsion has been imposed on a student, the Vice-President \& Provost (or delegate) shall have the power to record that sanction on the student's academic record and transcript for such length of time as he or she considers appropriate.

A sanction of suspension shall be recorded on the student's academic record and transcript up to five years. The following wording shall be used: "Suspended from the University of Toronto for reasons of non-academic misconduct for a period of [length of suspension], [date]."

A sanction of expulsion shall be permanently recorded on a student's academic record and transcript. The following wording shall be used: "Expelled from the University of Toronto for reasons of non-academic miscondut, [date]."
6. Suspension from registration in any course or program of a division or divisions for a period of up to one year.
7. Recommendation of expulsion from the University.
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# About the University, the Faculty and the Colleges 

## Brief History of the University of Toronto and the Faculty of Arts \& Science

Following are significant dates for the University and the Faculty For a description of their governing structures, and details of the Colleges in the Faculty, please see the following pages.

1827 Royal Charter granted to establish King's College at York (Toronto), the state university of the Province of Upper Canada.
Upper Canada Academy founded at Cobourg, Ontario. It became Victoria College in I84I.
1843 Official opening of King's College, located in former Parliament Buildings of the Province of Upper Canada. First degrees granted in 1844
1849 King's College became University of Toronto; connection with the Church of England terminated.
I85I University of Trinity College established by Church of England
I852 St. Michael's College established by the Basilian Order.
1853 University College established, assuming responsibility for all teaching in Arts in the University;
the University became an examining and degreegranting body.
1856 Construction of present University College building started. Completed in 1859.
I88I St. Michael's College affiliated with the University. Full federation in 1910.
1887 Instruction begun in fields other than arts and the sciences. University College became purely an Arts College.
1890 East section of University College building, including University Library, gutted by fire. It was immediately reconstructed.
1892 Victoria College moved from Cobourg and federated with the University of Toronto.
1892 University Library opened; enlarged in 1909 and in 1954. (Now Sigmund Samuel Library)

1904 Trinity College federated with the University of Toronto.

I905 Part-time courses leading to the B.A. degree established.

1920 Degree of Bachelor of Commerce established.
1925 Trinity College moved to present buildings from old Queen Street site.
1931 Ontario Upper School (Grade XIII) standing required for admission.
1960 Name of Faculty of Arts changed to "Faculty of Arts and Science."

1961 Degree of Bachelor of Science established.
1962 New College established.
1964 Innis College established.
1965 Scarborough College established.
1967 Erindale College established.

1971 University of Toronto Act 197I established current governance of the University by a Governing
Council.
Scarborough College became separate Arts and Science division in the University.
1973 John P. Robarts Research Library opened.
1974 Woodsworth College established.
2003 University of Toronto Mississauga became separate
Arts and Science division in the University.

## Officers of the University of Toronto

A list of officials of the University of Toronto can be found at: http://www.utoronto.ca/govencl/tgc/3.01.07.pdf.

## Governing Council of the University

The overall governance of the University rests with the Governing Council which directs university policies. The Governing Council is composed of the Chancellor and the President who are ex-officio members; 2 members appointed by the President, 16 members appointed by the Lieutenant-Governor-in-Council; 12 members elected by the teaching staff from among the teaching staff; 8 members, 4 of whom are elected by and from among the full-time undergraduate students, and 2 of whom are elected by and from among the graduate students, and 2 of whom are elected by and from among the part-time undergraduate students; 2 members elected by the administrative staff from among the administrative staff; and 8 members who are not students or members of the teaching or administrative staff elected by the alumni from among the alumni.

## Officers of the Faculty of Arts and Science

Dean
Pekka Sinervo
Vice-Dean (Graduate Education \& Research)
Meric Gertler
Vice-Dean (Undergraduate Education \& Teaching)
Susan Howson
Vice-Dean (Academic)
Anne Lancashire
Assistant Dean and Director, Planning \& Information Technology

Monica Contreras
Assistant Dean and Executive Director of Advancement Nadina Jamison

## Assistant Dean/Faculty Registrar and Secretary

Glenn Loney
Assistant Dean and Director of Communications
Kim Luke

# About the University, the Faculty and the Colleges 

Assistant Dean, Human Resources<br>Carol Robb

## Assistant Dean and Director, Office of the Dean and Executive Assistant to the Dean <br> Vera Melnyk

Assistant Dean and Director of Finance
Isaak Siboni

## Governing Structure of the Faculty

## The Arts and Science Council

The Arts and Science Council is the governing body in the Faculty of Arts and Science. The Council is composed of elected members from the Faculty's undergraduate and graduate students, teaching staff, administrative and technical staff, and normally meets eight times per year. It approves policy for the Faculty in the areas of admissions, curriculum development, evaluation and academic standing, among others, and determines the Faculty's rules and regulations. Budgetary and administrative matters are not within the purview of Council; those responsibilities lie with the Dean of the Faculty.

The Council has a number of Standing Committees charged with specific responsibilities to formulate policy and to apply it in specific cases. Those committees are: Undergraduate Curriculum Committees, Committee on Standing (petitions), Academic Appeals Board, and the Committee on Admissions. Approval of graduate curriculum in the Faculty is delegated to a Three Campus Curriculum Committee and reported to Council for information only.

Details on the Council and its sub-committees, along with the Constitution and By-Laws, rules for elections, meeting dates and agendas can be found on the Faculty's Governance web site at http://www.artsci.utoronto.ca/main/facultygovernance.

## Elections to Council and its Committees

Elections to fill the positions on the Arts and Science Council and its committees are held in the Spring for the following year's Council and committees. The exception is the election of First-Year representatives, held early in the Fall Term. Notification of the nomination and election dates, as well as nomination forms, will be available on the Faculty's Governance web site and from the Office of the Faculty Registrar. Students will be notified by email sent to their UTORmail account.

The Colleges

## Innis College

Principal
J. Paterson, Ph D, FRSC

Vice-Principal
R. Riendeau, MA

Assistant Principal and Registrar
D. Boere, MA

Associate Registrar—Academic
C. Li Tang, BA

Associate Registrar—Administrative
T. MacKay, MA

Associate Registrar-Recruitment and Transition M. Halliop, MA

Dean of Residence

## G. Spencer

Chief Administrative Officer
D. Graham, MBA, CMA

Alumni and Community Relations Officer E. Boldt, BFA

Innis College offers its 1,600 students high academic standards, a dedicated faculty and staff, and a vibrant undergraduate community within the University of Toronto. Innis contributes four interdisciplinary programs to the Faculty of Arts and Science, listed under "Innis College" in the calendar: Cinema Studies; Urban Studies; and Writing, Rhetoric and Critical Analysis. College academic services include the library, the writing centre, and the math/stats centre and are designed to ease the transition to university and support Innis students throughout their university careers.

Founded in 1964 and named in honour of the late Harold Innis, political economist and pioneer in communication studies, Innis College is housed in a unique three-story building that blends old and new styles by incorporating a substantial Victorian home into a functional modern structure. At the core is the Town Hall, a forum-style auditorium. Classrooms and offices for the 25 professors associated with the College and its programs occupy the second and third floors. A library, a café with an outdoor patio, a rooftop garden, and study, lounge and student union space complete the facilities.Across the street, the Innis Residence is a modern apartment-style complex featuring 327 single rooms in four- or five-bedroom suites. The residence houses a diverse community of Innis students and students from professional faculties.
Innis is the only undergraduate college at $U$ of $T$ that ensures equal representation of faculty and staff and students in its decision-making process. With its parity governance structure, innovative academic programming, independent community living, civic outreach, and informed activism, Innis College has created a community in which students can flourish academically and socially.

New College<br>Principal<br>R. Halpern, Ph D<br>Vice-Principal<br>J. Larkin, Ph D<br>Assistant Principal and Registrar<br>S.J.Walker, MA<br>Associate Registrar (Administrative)<br>D.M. Chang, BA<br>Associate Registrar (Student Services)<br>P.W. Russell, B Ed, MA<br>Assistant Registrar<br>M. Cheung, BSc<br>Dean of Students<br>A.Yeoman, MA, Ph D<br>Director, Business Services<br>R. Vander Kraats, MASc, MBA, P Eng<br>Director, Writing Centre<br>D. Knott, MA, MTS<br>Alumni Development Officer<br>B.A. Registe, BA<br>Senior Development Officer<br>K. Mehta, BEd, MA<br>Librarian<br>J. Guillaume, BA, MS

New College, established in 1962, is open to students of all Faculties and Schools in the University. Approximately 4,300 of its students are in the Faculty of Arts and Science, and 400 in other divisions. Members of the College, whether in humanities, social science, science or professional programs, may broaden their university experience by meeting others from different fields and subject areas.

Arts and Science students have the full range of the Faculty curriculum open to them. The College takes part in their instruction through University courses taught by crossappointed staff; and also through interdisciplinary courses (listed with the prefix "NEW"' in the Calendar) designed to interest students in all Faculties. Individual tutoring is offered in Mathematics and Statistics, and the Writing Centre gives help with written assignments and reports. The College Registrar's Office provides academic, financial, and personal counselling.
The College's three modern, conveniently-located buildings provide academic, library, computing, dining and social facilities for all members, and also house the College residences. This creates an atmosphere of community, promoting contacts among students and staff and encouraging non-residents to become involved in college life. The residences accommodate approximately 860 students and welcome applicants from the Toronto area as well as from out- of-town. Residence application is made through the University Office of Admissions and Awards; further information about residence may be

## About the University, the Faculty and the Colleges

obtained from the Dean of Students, New College. For further information about the College, please contact the Registrar, New College, 300 Huron Street, Toronto, Ontario, M5S 3J6.

E-mail: newcollege.registrar@utoronto.ca
Website: www.newcollege.utoronto.ca

## St. Michael's College

## Chancellor

His Eminence Aloysius Cardinal Ambrozic, Th D
President \& Vice-Chancellor R.M.H. Alway, O.C., O.Ont, MA, Phil M, D. Litt. S

## Principal

M. G. McGowan, BA, MA, Ph D

## Registrar

D. Chevrier, BA

## Assistant Registrar

G. George, BA

## Associate Registrar

M. Memari, BA

## Associate Registrar, Admissions \& Recruitment

 A. McGee, BAAssistant Registrar, Scholarship, Awards \& Financial Aid P. Maskwa

## Dean of Students

D. Rendle, BA MIR

Dean of Women (Loretto College)
A. Convertini, BA, B Ed, M Ed

Programs Administrator
M. O'Connor, Ph B, STB, STL. D Phil

## Bursar

P.Venton BA, MA

## Librarian

J.B. Bengtson, BA, MA, M Phil

St. Michael's College was founded in 1852 and is situated on the historic east side of campus in the heart of Toronto. St. Michael's provides an oasis within the University of Toronto and the city itself. St. Michael's is located just minutes from public transit, libraries, Bloor \& Yonge Street shopping, museums and theatres. St. Michael's is rich in tradition and has some of the most spectacular architecture on the University of Toronto campus.
Building on its distinguished tradition of academic excellence, the College is committed to enhancing and enriching the academic and personal growth of all of its students. There are approximately 4000 full-time and 500 part-time students registered in a variety of programs leading to a Bachelor of Arts, Bachelor of Science or Bachelor of Commerce degree.

St. Michael's College is rooted in an intellectual Catholic tradition. At the same time, it welcomes students, staff and faculty from every faith and background. The College actively seeks to build a community in which cultural and other differences are appreciated and celebrated.

St. Michael's students have access to all of the facilities located at the University of Toronto; however, the facilities and programs within St. Michael's College are second to none. Facilities such as the John M. Kelly Library with its 400,000 volumes and over 1000 periodicals, the student centre, Chaplaincy program, the various clubs and sports, Mathematics Aid and Writing Centre, Debating Union and Theatre groups are just a few examples. Programs offered at St. Michael's College are Book and Media Studies, Christianity and Culture, Mediaeval Studies and Celtic Studies. In 2008, and in partnership with the Ontario Institute for Studies in Education (OISE/UT), St. Michael's College will begin admitting second-year students into a Concurrent Teacher Education Program (CTEP) which will train teachers of Religious Education for the Catholic high schools in Ontario. This program will combine a Bachelor of Arts degree, built around a specially-designed major in Christianity and Culture, with a Bachelor of Education degree. The program will be completed over five years.
Residence accommodations are available for both men and women. Applicants interested in visiting the residences should contact the Dean of Students, St. Michael's College Residence at smc.residence@utoronto.ca OR Dean of Women, Loretto College at loretto.college@utoronto.ca.
All prospective students are encouraged to see the Associate Registrar for information, counselling and a visit. You may contact the office at stmichaels.registrar@utoronto.ca. The Registrar's office is in Room 207, Alumni Hall, I2I St. Joseph Street. College mailing address is 8 I St. Mary Street, Toronto, ON M5S IJ4.

Telephone: 416-926-7II7.
stmichaels.registrar@utoronto.ca
www.utoronto.ca/stmikes

## Trinity College

## Chancellor

TBA

## Provost and Vice-Chancellor

A. Orchard, BA, Ph D

Vice-Provost and Dean of Arts
D.P.H.Allen, MA, B. Phil, D. Phil

Registrar and Director of Student Services
B.W. Bowden, MA, Ph D

Associate Registrar
B. Ferguson, MA, Ph D

Assistant Registrar
N. De Melo, BA

Dean of Students
K. Castle, BA

## Bursar

G.B. Seaborn, BA, MBA

Librarian
L.W. Corman, MA, MLS

Trinity College opened its doors as a university on Queen St. East in 1852, graduating students in Arts, Music, Medicine and Divinity; in 1904 it federated with the University of Toronto,

# About the University, the Faculty and the Colleges 

building a near-replica of its original building when it opened on this campus. The College enrols approximately I,700 students in Arts, Science, and Commerce. It has established interdisciplinary programs in Ethics, Society, and Law; Immunology; and International Relations. The College maintains particular library strengths in these areas as well as in English, History and Philosophy.

The College's limited enrolment fosters a sense of community among faculty and students. Its resident Academic Dons, (senior graduate students who offer tutoring assistance in the Humanities, Life Sciences, Physical Sciences, Social Sciences and Commerce), along with the Registrarial staff facilitate informal contact for students with College Fellows who are faculty members drawn from many Arts and Science departments as well as from other Faculties. The College also provides the services of a Writing Centre (978-3530), and a Math Aid Centre (978-8454). In the College's campus are its Library which includes reference collections, several small reading rooms and reservable rooms for group-study, Chapel, cafeteria, dining halls, common rooms, theatre, and sports facilities. Student debating, athletic and drama societies anchor a very active student ethos and $25 \%$ of the College students live in residence. Both residences, at St. Hilda's and around the Trinity Quadrangle, house women and men, usually allocated by floor. The Gerald Larkin Academic Building, on Devonshire Place, includes the Buttery, theatre, the Centre for Ethics, lecture rooms and offices of many of the teaching staff, together with the Math Aid and Writing Centre. The International Relations Programme and its faculty members are housed in the north building of the Munk Centre for International Studies. The Buttery provides eating, lounge, and study space that is ideal for group discussions and computer use, as well as offices for "non-resident" students and the adjacent theatre. For further information about the College and for residence applications write the Registrar, Trinity College, Toronto, Ontario, M5S IH8. The Registrar will see prospective students by appointment

E-mail address: registrar@trinity.utoronto.ca
Web site: http://www.Trinity.utoronto.ca

## University College

Principal
S. Bashevkin, MA, PhD

## Vice-Principal

J. L. Matus, MA, PhD

## Registrar

S. Cornack, BA

Associate Registrar
L. Nauman, BA

## Assistant Registrar

J. Rodriguez

Dean of Students
N. Robinson, M Ed

Chief Administrative Officer
J. Linley, CMA

Director of Alumni and Development
K. Aucoin, CFRE

Librarian<br>S. Kaszuba, MLS<br>Writing Workshop Director<br>J. Plotnick, MA, M Sc

University College was established in 1853 as the Provincial Arts College (the successor to King's College, founded in 1827); it still occupies its original building near the centre of the St. George Campus. The College's students may enrol in any of the courses offered by the Faculty of Arts and Science. In addition, University College offers seven interdisciplinary programs, including Aboriginal Studies, Canadian Studies, Cognitive Science and Artificial Intelligence, Drama, Health Studies, Peace and Conflict Studies, and Sexual Diversity Studies. College courses in these and other areas are listed in the Calendar under Aboriginal Studies, Drama and University College.

University College offers residence accommodation for 700 undergraduates in both single and double rooms in its three co-educational residences, the Sir Daniel Wilson Residence Whitney Hall, and Morrison Hall. Enquiries should be addressed to the Residence Office, 79 St. George Street, Toronto, Ontario, M5S 2E7. University College offers the services of a Computing Centre, a Math Aid Centre and a Writing Workshop. Other amenities include the University College Library, which comprises a circulating collection supporting UC programs and a spacious reading room; the U.C. Union with its dining hall and common rooms; the Playhouse, a theatre for student productions; the Junior Common Room; and the University College Literary and Athletic Society, Canada's oldest student government, which sponsors a great variety of athletic, intellectual and social activities.

## Victoria College

## Chancellor

N.F. Jewison, BA, CC, LLD

President Emeritus
.E. Hodgetts, MA, PhD, FRSC
President and Vice-Chancellor
P.W. Gooch, MA, Ph D

Principal and Program Director
D.B. Cook, MA, PhD

Associate Director, Office of the Principal
J.L.Welsh

Registrar
S.C. McDonald, BA

Associate Registrar
E. Melo, BA

Assistant Registrar
V. Ferrier, BA

Director, Alumni Affairs and University Advancement
L.D. Davies, BA

Bursar
D. Keeling, BA, MA

Dean of Students
J. Hunter BA

# About the University, the Faculty and the Colleges 



Librarian
R.C. Brandeis, BA, MLS, Ph D

Victoria College, founded in 1836 as Upper Canada Academy, was granted a university charter in I84I and federated with the University of Toronto in 1892.

The college is located on a 15 -acre site at the north-east corner of Queen's Park opposite the Royal Ontario Museum. It offers many facilities to its students, including the E.J. Pratt Library with its 220,000 volumes, the Wymilwood Student Union, and a playing field. The Victoria College building, opened in I892, contains classrooms, some faculty and administrative offices, Chapel and Alumni Hall. Northrop Frye Hall, completed in 1966, also provides office space for most of the administrative and teaching staff and contains classrooms and a large auditorium theatre. The Isabel Bader Theatre opened in 2001 offering a 500 -seat state-of-the-art lecture hall with advising support is provided by the Registrar's Office. In addition, the College has a Math Aid Centre, a Writing Workshop, and tutorial services in a wide range of subjects.

Residence accommodation for approximately 800 students is available on campus. Annesley Hall, Margaret Addison Hall and Burwash Hall provide accommodation in single and double rooms for chiefly undergraduate students. The Lower Houses of Burwash Hall and Rowell Jackman Hall, an apartment style residence, house upper-year undergraduate and graduate students. All residence students take their meals in Burwash Dining Hall. Non-residence students may purchase meal tickets for Burwash or take light meals at the Wymilwood Cafe (Ned's). Further information about residences may be obtained by writing to the Dean of Students, Victoria College, Toronto, Ontario, M5S IK7.

E-mail: vic.registrar@utoronto.ca
Web site: http://vicu.utoronto.ca

## Woodsworth College

## Principal

M. O'Neill-Karch, MA
C. Shook, BA, MA

Program Director
W.H. Bateman, BA

Director, Professional \& International Programs
Y.Ali, BA, MSc

Associate Registrar
J.N. Guyatt, BA

Associate Registrar
A.M.Armogn
W.Wong, BSc

Dean of Students
L. Nassim, BA
W. B. MacDonald, BA, MA

Executive Director: Advancement, Alumni \& Communications<br>B. Track, BA, CFRE<br>Chief Administrative Officer<br>M. Choi, B Com, CA

Woodsworth College is named in honour of James Shaver Woodsworth (1874-I942), minister, pacifist, social activist and Member of Parliament who was strongly committed to broadening educational opportunities for all. The College traces its roots to 1905 when a part-time program leading to the Bachelor of Arts degree was established at the University of Toronto. In 1920 the Department of University Extension was organized to offer credit and non-credit courses.
Woodsworth College was formally constituted in 1974 to offer credit courses primarily for part-time students in a number of faculties. In 1999 the College opened its doors to students proceeding directly from high school to full time studies. Woodsworth College is now home to over 3500 full time students and 2500 part-time students, who enrol in the full range of Arts and Science courses and programs - day and evening, summer and winter. The College also offers undergraduate degree programs in Criminology and Employment Relations; the Academic Bridging Program; international summer programs in Australia, Central Europe, China, Ecuador, England, France, Germany, Italy, Japan, Jordan, Mexico and Russia; and postgraduate certificates in Human Resource Management and Teaching English to Speakers of Other Languages.
A special feature of Woodsworth College is the academic support program which includes academic counselling, financial aid, study skills seminars, the Academic Writing Centre, and the Mathematics Lab. In co-operation with the Commerce Program, the recently expanded Computer Lab has thirty work stations with web access, word editing software and printing facilities. The Computer Lab is available to students enrolled in the Commerce Program or Woodsworth College, and is open extended hours. For further details e-mail wdwregistrar@ utoronto.ca or check www.wdw.utoronto.ca.
Our new residence at the corner of Bloor Street West and St. George Street accommodates 371 students in air-conditioned suites with private single bedrooms. Each suite accommodates four to six students, with a shared living area, a full kitchen and two washrooms. There is twenty-four hour security, high speed internet access, common areas and laundry facilities. In addition, we offer a Residence Life Program of social and educational activities. The Woodsworth College Residence provides students with an exceptional residential experience in a modern building that is conveniently located, close to classrooms, libraries, athletic facilities and the subway. More information about the residence can be obtained at www.wdw.utoronto. ca/residence.

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[^0]:    Faculty
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    J.N.H. Britton, MA, Ph D
    R.B. Bryan, BA Ph D (Forestry)
    I. Burton, Ph D, FRSC
    L. Curry, MA, Ph D
    A.J. Dakin, Ph D, ARIBA, FRTPI
    W.G. Dean, MA, Ph D, LL D
    N.C. Field, MA, Ph D
    G.H.K. Gad, Dr Phil, Ph D (University of Toronto Mississauga)
    J.H. Galloway, MA, Ph D (V)
    G. Gracie, BA Sc, Ph D (University of Toronto Mississauga)
    R. Jaakson, M Sc (PI), Ph D (University of Toronto Mississauga)
    A.V. Jopling, MA, Ph D
    P.D. Kerr, MA, Ph D
    J.T. Lemon, MS, Ph D (U)
    T.F. Mcllwraith, MA, Ph D (University of Toronto

    Mississauga)
    S.T. Roweis, M Sc (PI), Ph D (I)
    J.W. Simmons, MA, Ph D
    J. Spelt, MA, Ph D
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