# (3) ACADIA U N I V E R S I T Y 

Academic Calendar<br>2016-2017

This Calendar is printed several months before the academic year for which it is operative. Its contents are subject to continuous review and the University reserves the right to alter anything described herein without notice other than through the regular processes of the University. The University does not accept responsibility or liability to any person or persons who may suffer loss of who may be otherwise adversely affected by such changes.

The University does not accept responsibility for any loss, damage, or interruption of classes, accommodation or meals suffered by any student as a result of circumstances beyond the reasonable control of the university. These circumstances include the suspension or termination of services by any group of university employees.

Curriculum, course requirements and descriptions, academic regulations, and other academic matters, are established, modified, and approved by the Senate of Acadia University. In the interpretation of academic regulations, the University Senate is the final authority. The Registrar will assist students in interpreting academic regulations; however, it is the responsibility of students to see that their academic programs will meet university regulations.

The Board of Governors has final authority on all financial matters. The financial policies will be enforced through Financial Services, under the direction of the Associate VicePresident Finance \& Treasurer. Notwithstanding any other provision in this calendar Acadia University does not accept any responsibility for loss or damage suffered or incurred by any person, group or organization as a result of suspension or termination of services, courses or classes caused by reason of strikes, work stoppages, labour disagreements, slowdowns, lockouts, disputes, riots, weather, damage to university property, or for any other cause.

The Academic Calendar takes precedence over all other publications.
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## CALENDAR DATES

## 2016

Friday 10
Monday 13
Thursday 30

Friday 1
Monday 4
Friday 22

Monday 29
Wednesday 31

Saturday 3
Monday 5
Tuesday 6
Wednesday 7
Friday 16

Monday 19
Friday 30

Examinations for intersession Spring Term 2 courses. Intersession 6-week (Summer Term) and 3-week (Summer Term 1) courses begin. Examinations for intersession Summer Term 1 courses.

## JULY

Canada Day. No classes
Intersession 3-week (Summer Term 2) courses begin. Examinations for intersession Summer Term and Summer Term 2 courses.

## AUGUST

Last day to submit honours thesis for external review for Fall Graduation.
Last day to apply to graduate for Fall Graduation. Residences open for new international students.

## SEPTEMBER

Residences open for all new students. New student orientation activities begin.
Labour Day. Residences open for all returning students. Graduate student registration. Fall and Fall/Winter courses begin. Fee payment deadline. Last day to add/change any Fall or Fall/Winter course sections. Fall or Fall/Winter courses dropped after today will appear on the transcript with a ' $W$ '.
Deadline for approved honours thesis for Fall graduation. Last day to receive grades for Fall graduation. Last day to opt out of ASU health plan or add dependents. Last day to decrease meal plan for fall term.

## OCTOBER

Final exam schedule posted for December examinations.
Faculty meeting to approve Fall graduates.
Thanksgiving Day. No classes.
Fall study day.
Senate meeting to approve Fall graduates.
Last day to drop Fall courses and receive a 'W'. Any Fall classes dropped after today will receive an ' $F$ ' grade.

## NOVEMBER

| Wed/Thur 9/10 | Fall study days. |
| :--- | :--- |
| Friday 11 | Remembrance Day. No classes. |

## DECEMBER

Friday 2 Last day for undergraduate students to apply for Spring Convocation.
Last day of classes.
Examinations study day.
Fall term examinations begin.
Fall term examinations end.
Residences close at 12:00 noon.

## 2017

| JANUARY |  |
| :---: | :---: |
| Thursday 5 | Residences open for new international students. |
| Friday 6 | Residences open for all new students (12:00 noon). |
| Sunday 8 | Residences open for returning students (12:00 noon). |
| Monday 9 | Fall/Winter courses resume. |
|  | Winter courses begin. |
|  | Fee payment deadline. |
| Tuesday 17 | Last day to add/change course sections for any Winter course. Winter courses dropped after today will appear on the transcript with a 'W'. |
| Friday 27 | Last day to drop Fall/Winter (full-year) courses and receive a 'W'. Any full-year courses dropped after today will receive an 'F' grade. |
|  | Last day to apply for Spring Convocation for graduate students. |
|  | Last day for newly eligible Winter Term students to opt out of the ASU Health Plan or add dependents. |
|  | Last day to decrease meal plan for Winter Term. |

FEBRUARY
Monday 6 Final exam schedule posted for April examinations.
Monday 20
February 21-24
Nova Scotia Heritage Day. University closed.
Winter study break. No classes.

## MARCH

Friday 3
Monday 27
Last day to drop Winter courses and receive a ' $W$ '. Any winter courses dropped after today will receive an ' F ' grade.
Last day to submit honours thesis for external review for Spring Convocation.

## APRIL

Friday 7
Saturday 8
Monday 10
Last Day of classes.
Exam study day.
Winter Term examinations begin.

Friday $14 \quad$ Good Friday. No examinations.
Monday 17
Deadline for approved honours thesis for Spring Convocation.
Monday 24 Winter Term examinations end.
Tuesday 25
Residences close at 12:00 noon.

## MAY

Wednesday 3 Last day to receive grades for Spring Convocation.
Monday 8

Tuesday 9
Wednesday 10
Sunday 14 Intersession 6-week (Spring Term) and 3-week (Spring Term 1) courses begin. Students notified of dismissal. Faculty meeting to approve spring graduates. Senate meeting to approve spring graduates. Baccalaureate Service.
Sunday/Mon 14/15 Spring Convocation ceremonies.

Monday 22
Friday 26

Monday 29

Monday $5 \quad$ Last day to submit an appeal to the Academic Appeals Committee.
Friday $16 \quad$ Examinations for intersession Spring Term and Spring Term 2 courses.
Monday 19 Intersession 6-week (Summer Term) and 3-week (Summer Term 1) courses begin.

## JULY

Monday $3 \quad$ Canada Day Holiday. No classes.
Friday 7
Monday 10
Friday 28
Victoria Day. No classes.
Examinations for intersession Spring Term 1 courses. Last day to opt out of ASU Health Plan or add dependents (16-month Bachelor of Education students). Intersession 3-week (Spring Term 2) courses begin.

## JUNE

Examinations for intersession Summer Term 1. Intersession 3-week (Summer Term 2) courses begin. Examinations for intersession Summer Term and Summer Term 2 courses.

## ABOUT ACADIA UNIVERSITY

Founded in 1838, Acadia University is one of the oldest and most respected liberal arts universities in Canada. Located just a one-hour drive from Halifax, Nova Scotia and its international airport, Acadia is an integral part of the quintessential college town of Wolfville, overlooking the Annapolis Valley and the Bay of Fundy.

Acadia's 3,500 students come from nearly every province and more than 50 countries to take advantage of our strong academic programs, a curriculum that encourages personal development, and collaborative learning experiences led by award-winning professors.

Students are encouraged to become part of a scholarly community that encourages and inspires them. Community engagement, real-world opportunities, and meaningful research at the undergraduate level are pillars of an Acadia education. The University recognizes that learning means living every moment in and out of class. Working closely with their professors is something that can be transformative for both our faculty and students, and often results in lifelong friendships.

In addition to the academic experience, co-curricular and campus life programs enhance learning opportunities and help students develop teamwork and leadership skills. Acadia has a long tradition of respecting diversity. Each member of the community has different experiences to share, enriching classroom and casual interactions.

Our liberal arts curriculum, combined with the intangible Acadia spirit and sense of belonging, lays a strong foundation for our students' future aspirations - travel, postgraduate study, careers, and family. An Acadia education helps our students grow and prepares them for life.


## Acadia's Mission

The mission of Acadia University is to provide a personalized and rigorous liberal education; promote a robust and respectful scholarly community; and inspire a diversity of students to become critical thinkers, lifelong learners, engaged citizens, and responsible global leaders.

## Academic Excellence

By choosing Acadia, you have opportunities to work closely with professors, volunteer in the community, study abroad, enjoy Co-op placements, and be engaged in real-world research. Acadia's four faculties - Arts, Pure and Applied Sciences, Professional Studies, and Theology - offer more than 200 degree combinations in its undergraduate academic programs and graduate programs.

## An Acadia Education

1. Is rigorous and liberal and requires students to gain knowledge and understanding within and across disciplines.
2. Focuses on the whole student and fosters healthy academic, social, and residential experiences to develop well-rounded critical thinkers, engaged citizens, and lifelong learners.
3. To accomplish this, an Acadia education:
4. Is personalized in that students and faculty build close educational relationships that foster critical thinking, deep understanding, and attitudes of lifelong learning.
5. Encompasses a variety of curricular and extracurricular experiences that develop engagement with community and society on the principles of modern citizenship, ethical decision-making, and accountability.
6. Emphasizes the importance of understanding all facets of the environment.
7. Promotes students' participation in research and creative endeavours in order to enhance their critical thinking and analytical reasoning, and to foster their understanding of the importance of these activities.

## Acadia's Technology-Rich Environment

Each Acadia student brings their own laptop to use in class, labs and the library. Faculty use technology in the classroom to create an interactive learning environment. Between classes, people gather in common areas to meet with friends, have a snack and catch up on homework or social media. Their laptop is the means by which they keep academic and personal connections to faculty, peers, and the Internet. They just look for the Acadia wireless network and login with the Acadia username and password assigned to every member of the university community.

Classrooms are designed to be technology friendly, with tables large enough to hold a laptop and study materials, and power outlets located throughout. Rooms are equipped with data projectors and large screens for presentations and video. All classrooms are wireless hotspots, as are the surrounding seating and food service areas. Residences are technology-ready, with wireless network access throughout. There is excellent cell phone coverage from the major providers, and cable television service can be purchased by students who have their own TV.

The Acadia Technology Services department (ATS) provides a website with links to laptop models they are authorized to support. Other laptops are fine as well, and ATS will offer advice and help on the best way to get those repaired if needed. The same website has
answers to many other technology questions as well, like how to buy software for coursework and how to troubleshoot common problems.
Communication Policy
Students are assigned an Acadia e-mail address during course registration. This address is used by faculty members and the university's various departments to deliver official communications. Students must monitor their Acadia e-mail account to remain current with academic and administrative notifications. In addition, the university maintains a safety notification system and encourages students to add their personal email and phone number to that system.

## Notes to Students

## Authority of the Calendar

Some departments, schools, or faculties provide students with documents descriptive of their individual offerings or requirements. In case of inconsistency, the regulations contained in this calendar prevail. Interpretation of regulations or requirements is made by a Dean or the Registrar and is open to written appeal to the Admissions and Academic Standing Appeals Committee.

## Responsibility of Students

It is expected that each student who registers at Acadia University will be familiar with the contents of this Calendar. By registering at Acadia, students accept responsibility for meeting all curriculum requirements and for complying with published dates and deadlines. Students also accept responsibility for being familiar with University regulations pertaining to financial matters.

If you are unsure of the meaning of any of the regulations or if you need help in determining how you can meet the requirements to graduate in your program, please contact the Registrar's Office for assistance. We will be happy to help you in any way we can.

## DEFINITIONS

The following words which appear throughout the calendar are defined here to help clarify understanding of the provisions contained in the calendar.

Academic Year: The 8-month period from September to April (i.e. the Fall and Winter terms).

Admissions Office: The office responsible for responding to inquiries on the university's programs and admission requirements. The admissions office determines acceptances to university programs and provides information on admissions procedures.

Antirequisite: Courses that are considered so similar in content that a student may not receive credit for more than one of them.

Audit Student: Any person permitted to attend a lecture-type course but who may not write papers or examinations, have access to equipment, technology, or supplies, or receive course credit. No record is kept of audits. Graduate students are not permitted to audit courses. Online courses may not be audited.

Continuingfee: The fee charged to graduate students to maintain enrolment in a graduate program. This does not apply to MEd students.

Continuing Graduate Student: Any person who, subsequent to completing the maximum one or two years of a residency requirement, or its equivalent, registers annually to maintain eligibility to complete degree requirements, or any part-time graduate student who in a twelve-month September to August period takes no graduate level courses other than the thesis, but registers in order to maintain eligibility to complete degree requirements.

Co-operative Education (Co-op): An academic program that formally integrates academic studies with discipline-specific, paid work experience.

Corequisite: A course which must be taken concurrently with another course.
Course: Unit of academic instruction for which 0-9h of credit is awarded.
Credit Hour: The standard unit by which the course work offered by universities is normally measured. One credit hour (1h) is assigned to a class that meets fifty minutes per week in class instruction, exclusive of laboratory, tutorial, and examination requirements, over a period of one term, or for equivalent class hours at intersession.

Department: A division of a faculty under the direction of a head. Each department offers one or more major programs of study.

Dismissed Student: Any person required to withdraw from studies for lack of sufficient academic performance. The words "may not register" appear on the official transcripts of such students.

Exchange student: Any student attending Acadia University through a formal agreement of exchange with another educational institution.

Faculty: A grouping of associated subject areas under the direction of a dean. There are four faculties at Acadia: Arts, Pure and Applied Science, Professional Studies, and Theology.

Full-time Undergraduate Student: 1) Any person registered for at least nine hours (9h) of instruction in either the fall term or the winter term is a full-time student for that term. 2) Any person registered for a total of eighteen hours (18h) of instruction in the fall and winter terms may be defined as full-time for the period September-April. 3) Any person registered for six hours (6h) of instruction over a six-week period during intersession is a full-time student for that period.

Please note: courses taken through Open Acadia normally will not count towards the calculation of full-time status.

Full-time Graduate Student: Any graduate student in the first or second year of a program of studies leading to a master's degree, or in the first, second or third year of a doctorate, and who makes a demand upon the university's resources by enrolling in courses or engaging in research requiring supervision.

Graduated Student: Any person who has completed a program of study and received a degree, diploma, or certificate. The word "graduated" appears on the official transcripts of such students.

Independent Student: Any person permitted to take courses for credit, but who is not enrolled in any degree or diploma program.

International Student: Any person who has entered Canada on a study permit for the purpose of attending this or another educational institution.

Major: A formally recognized area of concentration for which students must complete specific courses.

Minor: A secondary area of concentration. All BA (except Theatre and Music) and BSc students must have a minor.

Open Acadia: The division supporting academic units at Acadia University in order to offer flexible programming and learning opportunities to both Acadia students and the community beyond.

Part-time Graduate Student: Any person registered for graduate courses that form a part of the course requirements of a graduate degree program but who does not fulfill the definition of a full-time graduate student.

Part-time Undergraduate Student: Any student registered in undergraduate courses who does not meet definition of a full-time student.

Prerequisite: A course which must be completed before registering in an advanced-level course in the same or related discipline.

Seminar: A course, usually at the advanced level, where classes are normally small and where the focus is generally on independent research shared with other students through the presentation of papers.

Registered Student: Any person admitted to a university program, or accepted as an independent student who has enrolled in a course, or for thesis research, by completing registration accurately and at the required time, who has had it approved as necessary, and by the Registrar, and who has paid the required fees to the Student Accounts Office.

Registrar's Office: The office responsible for overseeing the academic life of all students currently taking classes at the university. The Registrar records courses and grades on transcripts, advises students, schedules exams and classes and generally provides information on academic procedures and regulations.

Returning student: Any person who has registered for courses in the previous twelvemonth period, and who has neither graduated nor been dismissed. In the latter cases, students must have applied for re-admission and been accepted.

School: A division within a faculty which offers a professional program led by a director.
Sessions: The approved periods within which courses are scheduled to begin and end, and subsequent to which grade reports and transcripts are issued. Sessions include the Fall term (Sept-Dec), Winter term (Jan-Apr), Intersession (May-Aug) and online openentry.

Tutorial: Instruction given to students individually or in small groups.
Transcript: A document prepared by the Registrar's Office recording a student's entire official academic history including courses taken and grades assigned.

Visiting Student: Any person permitted to take courses for transfer of credit to another college or university.

## PART I: ADMISSION

In keeping with the form and intent of the original Act of Incorporation, Acadia University admits academically qualified students of any age, sex, gender race, religion, creed, colour or ethnic or national origin to all the rights, privileges, programs, and activities generally accorded or made available to the students at the University. It does not discriminate on the basis of age, colour, religion, creed, sex, gender, sexual orientation, physical or mental disability, an irrational fear of contracting an illness or disease, ethnic, national or aboriginal origin, family status, marital status, source of income, political belief, affiliation or activity in administration of its educational policies, scholarship and loan programs and athletic and other university administered programs.

## Application Procedures

Applications for admission to Acadia University must be made online or on the prescribed application form and must be supported by official copies of all high school and other records of academic work. These documents must be submitted to the Admissions Office together with the appropriate application processing fee. Applicants who are attending, or who have attended, other postsecondary institutions must have their official transcripts sent direct for evaluation or provided in an envelope sealed by the institution. Further evidence may be required of an applicant's suitability for certain programs of study such as education and music.

In all cases, it is the applicant's responsibility to ensure that all documents related to or requested in support of an application are submitted, including final marks needed to confirm a previous offer of conditional admission.

If an offer of admission is made by the University to the applicant, an acceptance deposit must be sent. This deposit is, in all instances, not refundable. It is applied in full to university fees at the time of registration. Details of the amount of the deposit are stated in the letters of admission.

Documents submitted in support of an application for admission are retained by the university and are not returned to the applicant.

Information and documents received for persons who do not register by their expected date are retained for one year beyond the expected date of registration and then destroyed.

Enrolment in some programs is limited by Senate regulation. Consequently, admission is competitive and possession of the minimum requirements does not ensure that admission will be granted.

## Admission to Undergraduate Programs

## i. ADMISSION FROM HIGH SCHOOL

When planning their secondary school programs, students should note that a number of courses taken in the first university year have secondary school prerequisites. Generally, students continuing university work in subjects available in secondary school are advised to have senior year secondary school standing in those subjects.

Only academic (university preparatory) high school courses are acceptable for admission. The University reserves the right to exclude inappropriate courses from among those presented.

All programs require senior high school completion for admission, although exceptions may be made for very capable students to enter following their penultimate high school year (except from Quebec). All programs require four years of study except the Certificate in Applied Science (CAS) and the Bachelor of Applied Science. The CAS is a prerequisite to the Bachelor of Engineering program at Dalhousie University.

Applications for 2016-2017 will be screened at a minimum 70\% average for all programs. All students must present a penultimate (NS grade 11 or equivalent) high school year course in mathematics.

## From Nova Scotia Grade 12:

Only academic, university preparatory courses at the senior (NS Grade 12 or equivalent) high school level will be used to determine admissibility. Required courses:

1. English 12
2. Four additional Grade 12 Academic or Advanced courses

## Additional Grade 12 courses necessary for specific programs

| Applied Science: | Precalculus 12. Chemistry 12 is required for the Certificate <br> program. Physics 12 recommended. |
| :--- | :--- |
| Biology: | Academic or Advanced Math 12 and Chemistry 12 |
| Business: | English 12 with a minimum $70 \%$ and Academic or <br> Advanced Math 12 |
| Chemistry: | Precalculus 12 and Chemistry 12 |
| Community Development | Academic of Advanced Math 12 |
| Computer Science: | Precalculus 12 |
| Economics: | Academic or Advanced Math 12 |
| Environmental Science: | Academic or Advanced Math 12 and Chemistry 12 |
| Geology: | Academic or Advanced Math 12 and Chemistry 12 |
| Environmental <br> Geoscience: | Academic or Advanced Math 12 and Chemistry 12 |
| Kinesiology: | Academic or Advanced Math 12 |
| Mathematics: | Precalculus 12 with a minimum 70\% |
| Music: | Grade VIII Applied (Bachelor of Music); Grade VI Applied <br> (BA in Music, B. Music Education, Bachelor of Music <br> Therapy) |
| Nutrition: | Academic or Advanced Math 12 and Chemistry 12 |
| Physics: | Precalculus 12. Physics 12 recommended |
| Psychology: | Academic or Advanced Math 11. Academic or Advanced <br> Math 12 recommended |

## Equivalent certificates from other provinces

For admission purposes, the senior high school university preparatory program in all provinces except Quebec is considered equivalent to Nova Scotia Grade 12. Exceptions may be made for very capable Quebec Secondary V applicants. Normally, one year of CEGEP study is considered equivalent to Nova Scotia Grade 12. Students who complete the two-year CEGEP program with a 70\% average and receive the DEC will be admitted to the second year of a four-year program. A list of specific guidelines by province is available on our website.

## From the American system of education

Applicants who have completed a United States high school university preparatory program with an average mark equivalent to the college recommending mark in 16 academic subjects, including four courses in English and three in mathematics, will be considered for admission to a four-year degree program. Applicants must also submit a letter of recommendation by the school principal or guidance officer.

## From the British system of education

Normally two General Certificate of Education "A" level examinations, or equivalent, at the grade " C " level or above are required for admission to any program. However, an applicant who has completed one year of study beyond GCE "O" level will be considered on an individual basis. Credit for appropriate ' A ' level courses may be given if completed with grades of $\mathrm{A}, \mathrm{B}$, or C .

## Admission from the International Baccalaureate Program

Students will be considered for admission using the International Baccalaureate (IB) Diploma with a minimum score of 24 . Students admitted to Acadia University with a score of 30 or better on the IB Diploma will receive 30 hours of university credit. Students who have completed IB courses but do not possess the diploma will be considered based on their coursework. Acadia gives individual credit for IB courses completed at the higher level with grades of 5,6 , or 7 .

IB final and predicted results may be used to consider applicants for both early fall and regular admission, as well as entrance scholarship.

## Admission with Advanced Placement (AP) Tests

All AP students will receive advanced credit in approved courses as indicated below. An official AP transcript is required as part of the evaluation process. A maximum of 30 credit hours will be awarded.

| AP Course | AP Grade | Acadia Equiv. | Credit |
| :--- | :--- | :--- | :--- |
| Art | $3,4,5$ | ART 1813,1823 | 6 h |
| Biology | $3,4,5$ | BIOL 1113, 1123 | 6 h |
| Business Management | $3,4,5$ | BUSI 1703, 9103 | 6 h |
| Chemistry | $3,4,5$ | CHEM 1013, 1023 | 6 h |
| Computer Science A | $3,4,5$ | COMP 1113 | 3 h |
| Computer Science A/B | $3,4,5$ | COMP 1113, 1123 | 6 h |
| Economics/Micro | $3,4,5$ | ECON 1013 | 3 h |
| Economics/Macro | $3,4,5$ | ECON 1023 | 3 h |


| English Language/Composition | $3,4,5$ | ENGL 1213, 1223 | 6 h |
| :--- | :--- | :--- | :--- |
| English Literature/Composition | $3,4,5$ | ENGL 1413/1423 | 6 h |
| Environmental Science | $3,4,5$ | ENVS 1013, 1023 | 6 h |
| French/Language | $3,4,5$ | FRAN 1213, 1223 | 6 h |
| French/Literature | $3,4,5$ | FRAN 2113, 2123 | 6 h |
| German Language | 4,5 | GERM 1013 | 3 h |
| Government \& Politics/ American or <br> Comparative | $3,4,5$ | POLS 1303, 1403 | 6 h |
| History/European | 4,5 | HIST 1413, 1423 | 6 h |
| History/US | 4,5 | HIST 9106 | 6 h |
| Human Geography | $3,4,5$ | SOCI 1113/1023 | 6 h |
| Latin | $3,4,5$ | LANG 9106 | 6 h |
| Mathematics/Calculus A/B | $3,4,5$ | MATH 1013 | 3 h |
| Mathematics/Calculus B/C | 4,5 | MATH 1013, 1023 | 6 h |
| Mathematics/Calculus B/C | 3 | MATH 1013 | 3 h |
| Music | $3,4,5$ | MUSI 9106 | 6 h |
| Physics 1 | $3,4,5$ | PHYS 1053 | 3 h |
| Physics 2 | $3,4,5$ | PHYS 1063 | 3 h |
| Physics C | $3,4,5$ | PHYS 1013, 1023 | 6 h |
| Psychology | $3,4,5$ | PSYC 1013, 1023 | 6 h |
| Spanish Language | $3,4,5$ | SPAN 1013, 1023 | 6 h |
| Statistics | 4,5 | MATH 1213 | 3 h |

## ii. ADMISSION FROM OTHER THAN HIGH SCHOOL

## Admission by Transfer from Another University

Applicants for admission from another university must have an official transcript sent direct or provided to you in an envelope sealed by the institution for evaluation. Transfer credit normally will be given for individual courses which are applicable to the intended undergraduate degree program of study. A maximum of 60 credit hours can be transferred to a four-year degree program.

## Admission by Letter of Permission

Students now attending another university and who wish to take a course or courses at Acadia University for transfer credit to their home institution must apply on the regular Acadia Application for Admission form and have the Registrar of their university forward a letter of permission and an official transcript to the Admissions Office at Acadia University.

## Admission of Mature Students

Persons who wish to study on a full-time basis, who have been out of high school for a minimum of four years, and who do not meet the published academic admission requirements may be considered for admission on a mature student basis. The mature
applicant is required to submit transcripts of all academic work completed, two letters of reference from employers, an outline of future plans, and to be present for interviews if required. The mature applicant may be encouraged to take up to 18 h specified courses as an independent part-time student. If grades of C- or better are obtained in each and a minimum CGPA achieved of 2.00 or better, admission will be granted to a degree program and credit for these courses will be allowed towards it.

## Re-Admission of Former Students

All students who have been absent from the university for two academic years or longer, or who have graduated from the program of studies to which they were admitted, or who were subject to academic dismissal, and who wish to return for further studies, must apply for re-admission and complete the required application form.

## English Language Competency

Since English is the language of instruction at Acadia University, candidates must be able to communicate competently in English both orally and in writing, and may be required to present the result of the Test of English as a Foreign Language. The minimum acceptable score is 550 (computer-based score of 213, internet-based score of 80 ). Preference will be given to candidates with a score of 580 or better (CBT 237, IBT 93). Students not having sufficient communication skills in the English language may be required to enroll in remedial programs (e.g. English as a Second Language course, tutorials) at their own expense. Acadia University offers an English for Academic Purposes (EAP) second language program for students who may be academically admissible but who do not meet the minimum English language proficiency requirement.

## Admission to the Bachelor of Education Program

In keeping with our commitment to acknowledging the diversity of the school population, we encourage applications from racial, ethnic, cultural or other communities that are underrepresented in the teaching profession.
Applicants will be carefully selected after examination of all relevant information. Not all applicants who meet the minimum admission requirements will be admitted. The university reserves the right to refuse admission to any applicant.

## Bachelor of Education Admission Requirements:

1. A recognized bachelor's degree with a minimum GPA of 2.67 (70\%) in the last three years ( 90 credit hours) of undergraduate study.
2. Three reference forms - one academic reference and two references that speak to teaching potential.
3. An interview may be required.
4. Experience working with children and/or adolescents, for example, as a coach, counselor, parent, tutor, etc.
5. Provincial regulations require BEd students to pass a child abuse registry and criminal record check. This will be required prior to the program start date.

Note: The School of Education recognizes that certain extenuating circumstances may have prevented some applicants from meeting the 2.67 GPA requirement, that those who completed their undergraduate studies some time ago may not be able to obtain useful academic references, and that not everyone has equal opportunities to engage in employment or volunteer activities with children or adolescents. Our application package allows applicants to identify details of their individual circumstances that may have
prevented them from meeting some requirements, and we urge applicants to disclose all relevant information.

## Academic Background

The Bachelor of Education program is divided into two streams: Elementary and Secondary. These streams have additional admissions requirements related to candidates' academic background.

## Academic Background Requirements: Elementary Stream

1. Six (6) credit hours in university social studies coursework from any one or combination of the disciplines: History (with a preference for local and Canadian History), Geography, Economics, Politics, Anthropology Sociology, Law, Classics, African Canadian Studies, Mi’kmaq Studies, Acadian Studies, and/or Philosophy.
2. Six (6) credit hours in university Science coursework from any one or combination of the disciplines as listed under the Subject Fields/Recognized Discipline Chart.
3. Six (6) credit hours in University Math coursework with a preference for a course in fundamental concepts. Comment - Most institutions have a mathematics course designed for those who intend to become elementary school teachers. Math 1533, Mathematical Concepts I, and Math 1543, Mathematical Concepts II, are available online from Acadia, or any Fundamental Concepts in Mathematics course would be acceptable. Please note: Effective August 2014, the Nova Scotia Department of Education will increase the undergraduate credit hour requirement for Mathematics from 3 credit hours to 6 credit hours. This change affects all incoming Elementary education students.
4. Six (6) credit hours in university English coursework if undergraduate degree is delivered in English or six (6) credit hours if university French coursework if undergraduate degree is delivered in French.

- With permission of the Director, School of Education, a maximum of three (3) credit hours of the Elementary Education Prerequisites identified above may be completed in the first year of the BEd This is considered upon review of the application to the program.
- With permission of the Director, School of Education, a maximum of six (6) credit hours of cognate coursework may be recognized in fulfillment of the individual subject field requirements identified above as Elementary Education Prerequisites. This is considered upon review of the application to the program.


## Academic Background Requirements: Secondary Stream

1. A concentration of at least thirty (30) credit hours of university coursework in a discipline as listed under the Subject Fields/Recognized Discipline (see below); not to include Canadian Studies or Anthropology, a maximum of six (6) credit hours of cognate university coursework may be included in fulfillment of this requirement with permission of the Director, School of Education.
2. A concentration of at least eighteen (18) credit hours of university coursework in a second discipline preferably but not necessarily different subject field than the thirty (30) credit hour concentration as listed under Subject Field/Recognized Discipline (not to include Canadian Studies), a maximum of six (6) credit hours of cognate university coursework may be included in fulfillment of this requirement with permission of the Director, School of Education.

- With permission of the Director, School of Education, a maximum of three (3) credit hours of the Secondary Education Prerequisites identified above may be completed in the first year of the BEd This is considered upon review of the application to the program.
- Two distinct disciplines from two different subject fields are preferred although not required.


## Subject Fields/Recognized Discipline Chart

NOTE: The Acadia School of Education provides coursework towards teacher certification in the following subject fields.

| Subject fields | Recognized Disciplines |
| :--- | :--- |
| English | English |
| French | French |
| Mathematics | Mathematics |
| Science | Biology, Chemistry, Physics, Geology/Earth Sciences, <br> Environmental Studies, Oceanography Studies |
| Social Studies | African-Canadian Studies, History, Geography, Politics, <br> Sociology, Economics, Mi'kmaq Studies, Law, Classics, <br> Anthropology (second teachable only) |
| Physical Education | Physical Education, Kinesiology |
| Music* | Music |
| Technology <br> Education | Technology Education, Computer Science |

* Music may only be used as a second teachable with special consideration.


## Teacher Certification

The Nova Scotia Education Act requires that any person employed as a public school teacher hold a teacher's certificate issued by the provincial Department of Education. Sole authority to issue such teaching certificates rests with the Department of Education. A degree or a transcript of credit from a university is not a certificate or authority to teach in Nova Scotia. The Acadia Bachelor of Education degree normally results in the awarding of an Initial Teaching Certificate by the Nova Scotia Department of Education. Other programs lead to certification advancement in accordance with Department of Education regulations. Some certification requirements refer to academic work done prior to beginning the BEd program. For the most up-to-date requirements consult the Registrar of Teacher Certification at the Nova Scotia Department of Education.

BEd programs cannot be taken through part-time study and must be completed within three years of initial registration.

## Admission to Graduate Programs

Admission to graduate programs is coordinated by the Graduate Studies Office. Enquiries concerning details of specific graduate programs should be addressed to the Graduate Studies Officer by emailing gradinfo@acadiau.ca. If you are interested in pursuing an MA/MSc degree on a part-time basis, please consult with the department/school in question to see if they can accommodate your request.

## Minimum Graduate Admission Regulations

Admission to graduate programs is competitive and possession of the minimum requirements does not guarantee admission. Some departments and schools have additional requirements. Please consult the individual discipline entries in this calendar.

Candidates for admission to the graduate programs of Acadia University must possess an Honours degree, or a four-year bachelor's degree, or its equivalent, from an approved university. Those candidates possessing a major in a field other than that of their graduate
program will normally be required to take sufficient undergraduate courses to make up the equivalent of an Acadia undergraduate major. Special consideration may be given to those candidates wishing to change from one undergraduate field to a related graduate one.

Candidates must have at least a B- average (70\%) in the courses taken in the major field in the last two undergraduate years or 60 credit-hours of university study, including coursework in undergraduate degree(s) and any graduate work completed. Applicants to Master of Education programs must have at least a B average ( $73-76 \%$ ) in their Bachelor of Education program or in the final two years of full-time equivalent study.

Application Deadlines

| Master of Arts (MA) | English | Feb. 1* |
| :---: | :---: | :---: |
|  | Political Science | Feb. 1* |
|  | Social and Political Thought | Feb. 1* |
|  | Sociology | Feb. 1* |
| Master of Science (MSc) | Applied Geomatics | contact department |
|  | Biology | Feb. ${ }^{*}$ |
|  | Chemistry | Feb. ${ }^{*}$ |
|  | Computer Science | September start: May 1 January start: Sept 1 |
|  | Geology | Feb. ${ }^{*}$ |
|  | Mathematics and Statistics | Feb. ${ }^{*}$ |
|  | Psychology | Jan. 15* |
| Master of Education | Curriculum Studies | March 15 |
|  | Counselling | Dec. 1 |
|  | Inclusive Education | March 15^ |
|  | Leadership | March $15^{\wedge}$ |
| Master of Recreation Management |  | Feb. 1* |
| Doctor of Educational Studies (PhD) |  | Nov. 15 for July 1 entry |

* February 1 is the deadline for applicants who wish to be considered for funding. Other applications will be considered as received.
$\wedge$ Applications that arrive after the deadline will be considered if space is available, or until July $1^{\text {st }}$.


## English Language Proficiency

Since English is the language of instruction at Acadia University, candidates must be able to communicate competently in English, both orally and in writing, and may be required to present the result of an English language test. The minimum acceptable Test of English as a Foreign Language (TOEFL) score is 580 paper-based test (IBT 93). We also accept an overall IELTS score of 6.5 or a CAEL score of 70 . Students not having sufficient communication skills in the English language may be required to enroll in remedial programs (e.g. English as a Second Language course, tutorials) at their own expense. Acadia University offers an English for Academic Purposes (EAP) second language program for students who may be academically admissible but who do not meet the minimum English language proficiency requirement. Not all programs will accept EAP in place of an English language proficiency test. Information on the English language programs offered at Acadia can be obtained from Open Acadia.

## Application Procedures

Applications for admission to Acadia University must be made online and must be supported by official copies of all records of academic work. Applicants who are attending, or who have attended, other post-secondary institutions must have their official transcripts sent direct for evaluation or provided in an envelope sealed by the institution.

These documents must be submitted to the Graduate Studies Office together with the appropriate application processing fee. Please mail to: Box 70, Wolfville, NS, B4P 2R6. The processing fee is non-refundable.

In all cases, it is the applicant's responsibility to ensure that all documents related to or requested in support of an application are submitted, including final marks needed to confirm a previous offer of conditional admission.

If an offer of admission is made by the University to the applicant, an acceptance deposit must be sent. This deposit is, in all instances, not refundable. It is applied in full to university fees at the time of registration. Details of the amount of the deposit are stated in the letters of admission.

Documents submitted in support of an application for admission are retained by the University and are not returned to the applicant.

Information and documents received for persons who do not register by their expected date are retained for one year beyond the expected date of registration and then destroyed.

## Re-Admission of Former Students

All graduate students (excluding MEd students) who have been absent from the university for one semester, or who have graduated from the program of studies to which they were admitted, or who were subject to academic dismissal, and who wish to return for further studies, must re-apply for admission and complete the required application form. PLEASE NOTE that re-admission to a program is not guaranteed.

## Admission to Acadia Divinity College

All inquiries about programs offered should be directed to the Acadia Divinity College, from whom a separate academic calendar is available. Applicants are encouraged to apply for admission as early as possible during the academic year prior to their intended enrolment. International applicants are normally admitted no later than April 1st and Canadian applicants no later than August 1st; however, notification of acceptance is generally much sooner.

Students preparing for ordained ministry are encouraged to be in contact with their denominational judicatories to know, prior to beginning their theological studies, what the standards for ordination are in their denominations and whether a license to minister is expected of them prior to beginning their studies. The various programs that lead to a Master of Divinity or a Bachelor of Theology (ordination track) normally meet the educational standards for ordination in all Canadian Baptist Ministries related churches. This is also true of the Convention of Atlantic Baptist Churches (CABC) that is affiliated with the Canadian Baptist Ministries.

After the applicants' files are complete, the Admissions Committee will review and act on their applications and may request an interview.

For further information, please contact Acadia Divinity College directly at the following:
Main Office: (902) 585-2210
Toll-Free: 1 (866) 875-8975
Registrar: (902) 585-2216
Email: adcinfo@acadiau.ca

## Application for Residence

The Residence application is available to students who have accepted their offer of admission to Acadia by submitting their confirmation deposit. A link will be made available to all admitted students through their Acadia Central account at http://central.acadiau.ca. When you apply for residence, you will be asked to secure your space on campus by submitting your non-refundable residence deposit. For further information, contact residencelife@acadiau.ca

## Canadian Immigration Regulations

When you have received your official letter of acceptance to Acadia University, you should immediately begin procedures to obtain your Study Permit. A Visitor Visa may also be required. These documents are available from the nearest Canadian Embassy, High Commission or Consulate. The process of obtaining your required immigration documents will differ between visa offices abroad and, in some cases, can take several months to complete. All students must provide an official letter of acceptance and proof of sufficient funds to study in Canada. In some cases, a medical exam will be required. Depending on the visa office, you will receive your Study Permit before departing for Canada or you will receive a "Letter of Introduction" to present to a Canadian immigration officer at the place where you first enter Canada (port of entry). If you have been issued a "Letter of Introduction", the immigration officer at the port of entry will issue your Study Permit.

Under no circumstances should you leave for Canada until you have obtained either your Study Permit or your Letter of Introduction from a Canadian visa office abroad.

If you also require a Visitor Visa, be sure it is in your possession before departing for Canada.

You should attempt to have your initial authorization issued for the full term of your studies in Canada. It is important to remember the expiry date of your Study Permit. If your course of study requires you to remain in Canada past the expiry date, you must obtain an extension of your Permit before that date.

If you have been studying at a High School in Canada on a study permit, be sure to change the terms and conditions of your permit before coming to attend Acadia.

If you are studying at another college or university in Canada, you do not need to change the conditions or term of your current study permit, unless your permit is due to expire before coming to Acadia.

Only US citizens may apply for a student authorization at the border when they enter Canada. You should check with your Canadian Consulate and the Immigration website to make sure these regulations are current and applicable.

For more information about Canadian Immigration you can visit www.cic.gc.ca

## PART II: SCHOLARSHIPS \& FINANCIAL ASSISTANCE

## Undergraduate Students

Acadia University is very fortunate to have the support of generous donors whom support with rewarding and assisting our qualified incoming and returning students. In excess of $\$ 4$ million is spent annually in the areas of scholarship, scholar-bursary, bursary, awards and prizes. Scholarships cover a wide scope of academic pursuits, musical and athletic talents as well as community service and research activities. The Acadia University Senate-- Scholarships, Prizes and Awards Committee (SPAC) decides policy and process in which recipients of the scholarships, prizes, bursaries and awards are to be selected. Acadia Scholarships and Awards listing can be found online at:
http://financialaid.acadiau.ca/Award_Listing.html

## Entrance Scholarship and Scholar-Bursary

All entering students from High School who wish to be considered for an entrance scholarship and scholar-bursary must have completed all admission procedures and provided all supporting documents no later than March 1st preceding entrance to the university. Students with a minimum $80 \%$ scholarship average or better are automatically considered for an Acadia Entrance Scholarship.

Transfer students are also considered for entrance scholarship and scholar-bursary but must have a minimum cumulative GPA of $3.67 / 80 \%$ and be in their first degree program.

## Definitions

Scholarship: Awarded to a student during the admission process or during the academic term on the basis of outstanding academic achievement, extra-curricular involvement or leadership qualities. A minimum average of $80 \%$ is required.

Scholar-Bursary: Awarded primarily on the basis of both demonstrated financial need and academic achievement. Primarily financial need is demonstrated by the student applying for student loans.

Bursary: Granted to a student with demonstrated financial need which is determined by the Scholarship and Financial Assistance Office. Applicants must also be maintaining satisfactory academic progress in their program of study. Financial need is demonstrated by the student applying for student loans.

Awards and Prizes: Awarded based on a wide spectrum of donor determined criteria which may be limited to specific programs or activities.

## Policies and Process

## Deferral of Scholarship

Students may choose to take a gap year to work, volunteer, or travel. The Scholarship, Prize and Awards Committee of Senate allows students to defer their scholarship for up to one full academic year as long as the student does not participate in any further postsecondary education. Students who choose to defer must notify the Admissions office once they decide to attend or return to full-time study.

## Scholarships for Returning Students

Undergraduate scholarships awarded to students already in attendance do not normally require application as those eligible are automatically considered. There are a few exceptions and these are publicized through the ALL-Student email distribution, in a call for applications from qualified students. Most in-course scholarships are awarded annually, but a few are renewable for one or more years. The letter of notification will elaborate all conditions of the award. Students should check with their department/school to see whether a separate application is required for any departmental awards.

## Disbursement of Funds

Scholarship funds will be credited to your university account in two equal installments, September and January. Monies not required to cover first and second term fees will be disbursed at the request of the student. Renewable scholarships are available for up to four years or until a student graduates with their first undergraduate degree, whichever comes first.

## Withdrawing from University

If you withdraw or cease to be a full-time student at Acadia, recipients will have their award amount(s) adjusted per term according to the "academic and student fee" withdrawal policy up to the amount due payable to cover mandatory academic and student fee as well as any applicable on campus residence and meal costs.

## Conditions of Renewability

If you have received a renewable entrance scholarship/award you must register full-time each academic year at Acadia (September to April) in a full course load of 30 credit hours. If registered for less than 27 hours students must receive permission from their Dean or Director to carry a reduced course load. Students must follow the academic criteria below to have the scholarship/award renewed annually.

| Scholarship/Award Name | Academic Criteria |
| :--- | :--- |
| Acadia Renewable Entrance Scholarship <br> and/or Renewable Scholar-Bursary | Maintain a minimum average of 8o <br> percent (or sessional GPA of 3.50) in year <br> one and 85 percent (or sessional GPA of <br> 3.67 or Dean's List standing) in year two <br> and subsequent years. |
| Harrison McCain Scholar-Bursary | Maintain a minimum average of 60\% in <br> year one, 70\% in year two, and 75\% in <br> years three and four. |
| Roland and Leona Mullen Entrance <br> Awards | Maintain a minimum average of 70\% <br> each academic year. |
| Roland and Leona Mullen Business Award | Register each year in the BBA or BA <br> Economics program. <br> Maintain a minimum average of 65\% in <br> year one and 70\% in year two and <br> subsequent years. |
| The Rotary Club of Wolfville-Acadia <br> University Award | Maintain a minimum GPA of 2.50 after <br> year one, 2.75 after year two and 3.0 after <br> year three. |
| The Tantramar Scholarship <br> The Spicer-Hennessey Scholar-Bursary <br> The MacNeill Scholar-Bursary | Maintain a minimum average of 80\% <br> each year. |

## Appeal Process

In cases where the recipient of a renewable entrance scholarship fails to meet the conditions for renewability, they will be notified in the early summer. An appeal in writing to the Scholarships, Prizes and Awards Committee will be required. In considering your appeal, the Scholarships, Prizes, and Awards Committee will review your academic record and consider medical or other substantive reasons which you may submit.

## Scholarship Students on Co-op

While a student is on a fall and/or winter term Co-op work placement, they can hold their Acadia University awards. For renewable awards, the Scholarships \& Financial Assistance Office will work with the Co-op Office to determine eligibility for renewal taking into consideration the grade for the Co-op work term. Renewable awards are only available for up to four years or until the student graduates whichever comes first, as per the University awards terms and conditions.

## Scholarship Students on Study Abroad

If a student is on direct exchange, with fees payable to Acadia, in course and renewable entrance scholarship funds are credited to their university student account at Acadia in the usual manner-half in September and half in January. When the transcript is received from the University abroad, it is assessed and determined if the student has met the academic requirement to renew the scholarship.

## Financial Assistance

## Bursary

The University has a limited amount of money available each academic year to be awarded to needy and deserving students in the form of bursaries. The money has been provided by individuals and organizations specifically to provide financial assistance to needy students who are performing satisfactorily in an academic program as full-time undergraduates. Applications will not be considered unless the applicant is registered as a full-time undergraduate student. In addition, the applicant must have explored all other possible sources of financial assistance such as parental or other family support, Canada Student Loan, State Loan, Higher Education Loan Plan, etc. Application details are emailed to students in the fall of each year.

## University Interim Loans

Students sometimes find themselves unable to afford textbooks or rent at the beginning of the academic year while they are awaiting provincial loan funds. Students may submit information pertaining to their expected loan (a copy of their loan assessment) along with a request for funds and a summary of what funds are required to the Scholarships and Financial Assistance Office for consideration. Loans are not available to pay a student's university account.

## Provincial and United States Direct Loan Programs

Acadia's Scholarships and Financial Assistance Office can act as a liaison between students and the various provincial loan offices. Acadia University also participates in the William D. Ford Federal Direct Loan (Direct Loan) Program for U.S. students.

## Graduate Students

A graduate student may be provided with financial support from a combination of several different sources that may entail different expectations.

## Acadia Graduate Scholarship (AGS)

An AGS does not require students to do any work in return (other than maintaining a satisfactory standard, which is a grade of at least B in all courses taken at the University as part of the master's program). Departments and schools must demonstrate that all eligible applicants were considered and provide the basis for awarding it to successful applicants.

## Acadia Graduate Teaching Assistantship (AGTA)

An AGTA is payment in return for assistance in the delivery of our undergraduate programs. Students receiving these awards will be expected to work up to 12 hours a week or a maximum of 144 hours per semester, for which they will be paid a minimum of $\$ 15.00 / \mathrm{hr}$ plus $12 \%$ benefits. The specific duties will vary among departments/schools. Students are not permitted to teach regularly scheduled university courses (this does not include labs). The occasional lecture may be given; however, this will be under the supervision of the faculty member responsible for the course. Anything on a more regular basis, such as replacing a member of faculty on sick leave, etc., must be approved by the Dean of Research and Graduate Studies and the appropriate Faculty Dean. Students must maintain a satisfactory academic standard, i.e., a grade of at least B in all courses taken at the university as part of the master's program. These funds are subject to mandatory deductions. Students will receive a T4 slip for their earnings.
IMPORTANT NOTE: Recipients of an AGS/AGTA must be full-time students.

## Faculty Research Award (FRA)

The FRA is provided by a faculty member from their contractual research (Tri-Council funds cannot be used). The faculty member may also have to demonstrate that others were considered or could apply, and that it be created as a type of scholarship with an open competition. No work is involved for the award.

## Research Assistantship (RA)

This is payment from research funds belonging to a faculty member in support of your thesis or other work of interest to your supervisor's research program. Expectations will vary. Tasks may include (but not limited to) reviewing research papers, looking up references, summarizing related research, carrying out experiments, or developing software. These funds are subject to mandatory deductions. Students will receive a T4 slip for their earnings.
*Note: Not all graduate students are provided with funding. All students are encouraged to make application for any external scholarships for which they are eligible.

Most graduate applicants, who apply by February $1^{\text {st }}$ with a GPA of 3.0 in each of the last 2 years of undergraduate study, will be automatically considered for an Acadia Graduate Scholarship (AGS) and an Acadia Graduate Teaching Assistantship (AGTA).

December 1 is the deadline for applications to the MEd (Counselling) program. January 15 is the deadline for applications to the MSc (Psychology) program. March 15 is the deadline for all other graduate degree programs in the School of Education.

Applications received after the deadline will be considered for funding if such is available following the 1st competition.

## Harry Elmore Felch Fellowships in Science

The Harry Elmore Felch Fellowship, provided from the estate of Mr. Harry Elmore Felch, is awarded to a student in the Master of Science program. An annual award will normally be made to an incoming student who has attained a high academic standing in their undergraduate program. Preference will be given to residents of Kings County, Nova Scotia.

## Canada Graduate Scholarships - Master's program (CGS M)

The CGS M program provides financial support to high caliber scholars who are engaged in eligible Masters or, in some cases, doctoral programs in Canada. This support allows these scholars to fully concentrate on their studies in their chosen fields. The CGS M program supports 2,500 students annually in all disciplines and is administered jointly by Canada's three federal granting agencies: The Canadian Institutes for Health Research (CIHR), the Natural Sciences and Engineering Research Council of Canada (NSERC), and the Social Sciences and Humanities Research Council of Canada (SSHRC). The selection process and post-award administration are carried out at the university level, under the guidance of the three agencies. Students submit their application to the university at which they propose to hold their award via the Research Portal.
Qualifying Canadian universities receive a CGS M allocation indicating the number of students to whom they can award scholarships; these allocations are divided by broad fields of study: health, natural sciences and/or engineering and social sciences and/or humanities.

IMPORTANT NOTE: Applicants MUST also apply to graduate studies at the Universities they propose to hold the award. Acadia's admission application deadline is February $1^{\text {st }}$ for consideration (except for January $15^{\text {th }}$ for MSc in Psychology applicants and December $1^{\text {st }}$ for M.Ed. in Counselling applicants).

## Nova Scotia Health Research Awards

The Scotia Scholarship Awards are intended to provide financial support to high caliber trainees engaged in health research related to academic study at Nova Scotia universities. The goal of the awards is to support the development of the next generation of highly qualified health researchers and leaders in the Nova Scotia health research enterprise. For further information, see www.nshrf.ca.

## Commonwealth Scholarship and Fellowship Plan

These awards are available for Commonwealth students to study in Canada or Canadian students to study in other Commonwealth countries.

The fellowships are awarded to graduates of recognized universities for a period of two academic years and the intervening summer, and are intended to cover the holder's traveling, living and student expenses during the period of tenure.

Application forms and details of the award may be obtained from the Division of Research and Graduate Studies, or for students wishing to study in Canada, through the Canadian High Commissioner in their country. Persons intending to apply are advised to inquire not later than the beginning of October approximately one year prior to the date of tenure.

The Student Accounts Office (University Hall, $1^{\text {st }}$ Floor) serves as the collection point for all university fees and charges. This office cannot make adjustments to any fees without the permission of the appropriate department.

## Payment of Fees

All fee calculations are made at registration without prejudice and are subject to confirmation and adjustment at a later date. In addition to the handling charge for any cheque returned, the return may result in cancellation of enrolment. Applications for Canada Student Loans (CSL) must be made two to three months prior to registration and through the Student Aid Office of the Department of Education in the province of permanent residence.

Students financing their education through scholarships or through external sponsors must present proof of this at registration or, failing this, must make prior arrangements to enable payment of amounts required at registration. Late arrangements for payment will result in interest being charged. Enrolment may be cancelled for non-payment of fees. Fees for each term are due and payable prior to or at registration.

## Full-Time Students

1) A full-time student registered for the full Fall/Winter academic year may pay fees in two installments as follows:

- Tuition $-50 \%$ due upon registration and $50 \%$ on the first day of classes in January
- Student Organization Fees - 50\% due upon registration and $50 \%$ on the first day of classes in January
- Room Fees - 50\% due on the first day of classes in September and $50 \%$ on the first day of classes in January.
- Meal Plan Fees - 50\% due on the first day of class in September and 50\% due on the first day of classes in January
- Other Fees (including ASU Extended Health Plan) - 100\% is due upon registration

2) A full-time student registered for the Fall or the Winter term only is required to pay fees as follows:

- Tuition $-100 \%$ due upon registration
- Student Organization Fees - 100\% due upon registration
- Room Fees - These fees are levied based on the appropriate portion of the Full year fees and $100 \%$ is due upon registration
- Meal Plan Fees - These fees are levied based on the appropriate portion of the Full year fees and $100 \%$ is due upon registration
- Other fees (including ASU Extended Health Plan) - 100\% is due upon registration


## Part-Time Students

All fees are due and payable, in full, at registration.

## Technology Fee

The Acadia University Technology Fee is charged each year to all students. This fee is used to maintain and improve the technology environment which supports a student's learning experience at Acadia. This environment includes things like internet access through a combination of wired and wireless access, email accounts, courseware systems and network printing support. Please note that this fee is built into the Graduate Tuition amounts.

## Fees 2016-2017 - Undergraduate

| NOVA SCOTIA RESIDENTS |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | :---: | :---: | :---: |
|  | FULL-TIME <br> UNDERGRADUATE |  |  |  |  | FULL-TIME BEd |  |
|  | FULL <br> YEAR | PER <br> SEMESTER | FULL <br> YEAR | PER <br> SEMESTER |  |  |  |
| Tuition | $\$ 6,661.00$ | $\$ 3,330.50$ | $\$ 6,972.00$ | $\$ 3,486.00$ |  |  |  |
| Technology Fee | $\$ 568.00$ | $\$ 284.00$ | $\$ 568.00$ | $\$ 284.00$ |  |  |  |
| Athletic \& Health Services <br> Fee | $\$ 247.00$ | $\$ 123.50$ | $\$ 247.00$ | $\$ 123.50$ |  |  |  |


| CANADIAN STUDENTS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | FULL-TIME <br> UNDERGRADUATE |  | FULL-TIME BEd |  |
|  | $\begin{aligned} & \hline \text { FULL } \\ & \text { YEAR } \end{aligned}$ | PER SEMESTER | $\begin{aligned} & \hline \text { FULL } \\ & \text { YEAR } \end{aligned}$ | PER SEMESTER |
| Tuition | \$7,944.00 | \$3,972.00 | \$8,255.00 | \$4,127.50 |
| Technology Fee | \$568.00 | \$284.00 | \$568.00 | \$284.00 |
| Athletic \& Health Services Fee | \$247.00 | \$123.50 | \$247.00 | \$123.50 |
| Part-time, per 3h, undergraduate course, non-BEd |  |  |  | \$1,063.00 |
| Part-time, per 3h, undergraduate course, BEd |  |  |  | \$1,098.00 |
| Part-time, per 3h, online or intersession undergraduate course (OA) |  |  |  | \$941.00 |
| Part-time, per 3h, off-site or lab undergraduate course (OA) |  |  |  | \$1063.00 |
| Audit, per 3h course |  |  |  | \$515.00 |
| Seniors, per 3h course (credit) |  |  |  | \$904.00 |
| Audit, ALL Member, per 3h course (*Technology fee may be applied) |  |  |  | Free* |
| Continuing graduate or honours program, fee per year |  |  |  | \$1054.00 |
| Co-op work term, fee per semester |  |  |  | \$800.00 |
| Co-op internship, fee per 16 month course |  |  |  | \$1,588.00 |
| Axcess Acadia, fee per course |  |  |  | \$515.00 |


| INTERNATIONAL STUDENTS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | FULL-TIME UNDERGRADUATE |  | FULL-TIME BEd |  |
|  | $\begin{aligned} & \hline \text { FULL } \\ & \text { YEAR } \end{aligned}$ | PER SEMESTER | $\begin{aligned} & \hline \text { FULL } \\ & \text { YEAR } \end{aligned}$ | PER SEMESTER |
| Tuition | \$15,903.00 | \$7,951.50 | \$16,481.00 | \$8,240.50 |
| Technology Fee | \$568.00 | \$284.00 | \$568.00 | \$284.00 |
| Athletic \& Health Services Fee | \$247.00 | \$123.50 | \$247.00 | \$123.50 |
| Part-time, per 3h, undergraduate course, non-BEd |  |  |  | \$1917.00 |
| Part-time, per 3h, undergraduate course, BEd |  |  |  | \$1955.00 |
| Part-time, per 3h, online or intersession undergraduate course (OA) |  |  |  | \$1883.00 |
| Part-time, per 3h, off-site or lab undergraduate course (OA) |  |  |  | \$2126.00 |
| Continuing graduate or honours program, fee per year |  |  |  | \$2170.00 |
| Co-op work term, fee per semester |  |  |  | \$1648.00 |
| Co-op internship, fee per 16 month course |  |  |  | \$3274.00 |

Please see Student Organization Fees section for additional undergraduate fees.

## Non-Credit Courses

If a student is registered in less than 9 h of credit and is therefore considered part-time, the student will pay a per course fee for any non-credit course for which they are registered. The price for a non-credit course would be the same as that of a credit course. Students registered in this manner will pay the differential fee in the same manner as other part-time students.

| Math 0110, 0120, online, non-credit, Canadian | $\$ 525.00$ |
| :--- | ---: |
| Math 0110, 0120, online, non-credit, International | $\$ 1050.00$ |

## Fees 2016-2017 - Graduate

| NOVA SCOTIA RESIDENTS |  |  |
| :--- | :--- | ---: |
| Full-time graduate enrolled in the Master of Arts program |  | $\$ 6,616.00$ |
| Full-time graduate enrolled in the Master of Science, Master <br> of Recreation <br> Management or Master of Arts in SOPT program | 1st year | $\$ 4,252.00$ |
|  | 2nd <br> year | $\$ 4,252.00$ |
| Master of Education, per 3h course (*) |  | $\$ 1008.00^{*}$ |
| Continuing graduate fee to next convocation |  | $\$ 1054.00$ |
| Co-op work term, fee per 4-month course | $\$ 800.00$ |  |
| Co-op work term, fee per 12-16 month course | $\$ 1,588.00$ |  |
| PhD in Educational Studies | $\$ 8,571.00$ |  |
| PhD Ancillary Fee | $\$ 310.00$ |  |
| PhD Continuance Fee | $\$ 2,171.50$ |  |
| MEd Summer Institute | $\$ 75.00$ |  |


| CANADIAN STUDENTS |  |
| :--- | ---: |
| Full-time graduate enrolled in the Master of Arts program |  |
| Full-time graduate enrolled in the Master of Science, Master <br> of Recreation <br> Management or Master of Arts in SOPT program | 1st year |$\quad \$ 7,899.00$


| INTERNATIONAL STUDENTS |  |
| :--- | ---: |
| Full-time graduate enrolled in the Master of Arts program |  |
| Full-time graduate enrolled in the Master of Science, Master <br> of <br> Recreation Management or Master of Arts in SOPT program | 1st year |
|  | 2nd <br> year |
| Master of Education, per 3h course (*) | $\$ 1118058.00$ |
| Continuing graduate fee to next convocation | $\$ 2,074.00$ |
| Co-op work term, fee per 4-month course | $\$ 2,170.00$ |
| Co-op work term, fee per 12-16 month course | $\$ 1,648.00$ |
| PhD in Educational Studies | $\$ 3,274.00$ |
| PhD Ancillary Fee | $\$ 19,708.00$ |
| PhD Continuance Fee | $\$ 310.00$ |
| MEd Summer Institute | $\$ 5,626.00$ |

## Continuing Fees for Graduate Students

Tuition for all graduate students (except MEd) is based on either a 1-yr or 2-yr residency requirement. In the unusual situation where a student completes their graduate program early, tuition for the residency will still apply. Students who do not complete within the residency period will be charged a continuing fee for each additional semester that they are registered.

Leave of Absence Fees for Graduate Students

| Maternity/Paternal Leave * | $\$ 100.00$ |
| :--- | ---: |
| Illness Leave * | $\$ 100.00$ |
| Compassionate Leave * | $\$ 100.00$ |
| Employment Leave (International Students) | $\$ 2170.00$ |
| Employment Leave (Canadian Students) | $\$ 1054.00$ |

Those students on Maternity/Parental, Illness or Compassionate Leaves are ONLY required to pay the above mentioned fee in the event that they choose to maintain computer network, email and library access during the period of the leave.
Please see Student Organization Fees Section for additional fees.

## Other Fees (All Students)

| Campus Card System Access Fee | $\$ 10.00$ |
| :--- | ---: |
| CODE/RECR/KINE Program Fee | $\$ 100.00$ |
| Declined/refused Mastercard or Visa handling charge | $\$ 20.00$ |
| ESST Program Fee | $\$ 100.00$ |
| Late Graduation Fee | $\$ 25.00$ |
| Late Payment Fee | $\$ 50.00$ |
| Late Registration Fee | $\$ 25.00$ |
| Letter of Permission | $\$ 10.00$ |
| N.S.F. or other returned cheques handling charge | $\$ 35.00$ |
| Payment Extension Fee | $\$ 25.00$ |
| Reinstatement Fee | $\$ 50.00$ |
| Replacement Diploma | $\$ 50.00$ |
| Transcript Fee | $\$ 10.00$ |
| T2202 Reprint Fee | $\$ 15.00$ |
| Online course Extension Fee (6 month extension) | $\$ 150.00$ |

## Supplementary Music Fees for Majors

| Concert Credit | $\$ 100 / \mathrm{yr}$ |
| :--- | :--- |
| Ensemble Fee | $\$ 25 /$ term |
| MUSI 3003 | $\$ 25$ |
| MUSI 1666-4666 | $\$ 2000 / 6 \mathrm{~h}$ if not a program requirement |
| MUSI 1663-4663 | $\$ 1000 / 3 \mathrm{~h}$ if not a program requirement |

## Supplementary Music Fees for Non-Majors

| MUSI 1713, 1733 | $\$ 200 / 3 \mathrm{~h}$ |
| :--- | :--- |
| MUSI 1066-4066 | $\$ 2000 / 6 \mathrm{~h}$ |


| MUSI 1663-4663 | $\$ 1000 / 3 \mathrm{~h}$ |
| :--- | :--- |
| Ensemble Fee | $\$ 25 /$ term |
| MUSI 3003 | $\$ 25$ |

## Student Organization Fees

| UNDERGRADUATE |  |  |
| :--- | ---: | ---: |
|  | Fall-Winter term | Either Fall or Winter term |
| Students' Union Fee | $\$ 172.90$ | $\$ 86.45$ |
| ASU Wellness Fee | $\$ 30.00$ | $\$ 15.00$ |
| Building Fund Fee | $\$ 30.00$ | $\$ 15.00$ |
| Class Dues, undergraduate | $\$ 3.00$ | $\$ 1.50$ |
| Limited Interest Fee | $\$ 3.00$ | $\$ 1.50$ |
| Renovation \& Accessibility Fee | $\$ 30.00$ | $\$ 15.00$ |
| WUSC Fee | $\$ 1.00$ | $\$ 0.50$ |
| Yearbook Fee | $\$ 20.00$ | $\$ 20.00$ |
| Total | $\$ 289.90$ | $\$ 154.95$ |
|  | GRADUATE |  |
|  | $\$ 172.90$ | Fall-Winter term |
| Students' Union Fee | $\$ 30.00$ | $\$ 86.45$ |
| ASU Wellness Fee | $\$ 30.00$ | $\$ 15.00$ |
| Building Fund Fee | $\$ 1.00$ | $\$ 15.00$ |
| Graduate Student Association | $\$ 3.00$ | $\$ 1.00$ |
| Fee | $\$ 30.00$ | $\$ 1.50$ |
| Limited Interest Fee | $\$ 1.00$ | $\$ 15.00$ |
| Renovation \& Accessibility Fee | $\$ 20.00$ | $\$ 0.50$ |
| WUSC Fee | $\$ 287.90$ | $\$ 20.00$ |
| Yearbook Fee |  | $\$ 154.45$ |
| Total |  |  |
|  |  |  |

General Part-Time Studies Fee (Undergraduate \& Graduate) - All terms
\$10.30/3h course

## ASU Extended Health Plan

## Canadian Students

Canadian full-time students attending Acadia University are automatically enrolled in the Acadia Canadian Student Health Plan, which supplements but does not replace the provincial health care plan. The health plan fee is automatically charged to your student account. Students may opt out of this plan and receive a credit for the fee by showing proof of other comparable health care coverage and signing a waiver form at the Health Plan office (Old SUB Rm 610) NO LATER THAN September 30, 2016. No opt out requests will be accepted after this date.

| Single person, 12 months | $\$ 231.00$ | Family ${ }^{*}$, 12 months | $\$ 535.00$ |
| :--- | :--- | :--- | :--- |

## International Students

All international students are automatically enrolled in the Acadia International Student Health Plan. The health plan fee is automatically charged to your student account. Students may opt out of this plan and receive a credit for the fee by showing proof of other comparable health care coverage and signing a waiver form at the Health Plan office (Old SUB Rm 610) NO LATER THAN September 30, 2016. No opt out requests will be accepted after this date.

| Single person, 12 months | $\$ 744.00$ | Family *, 12 months | $\$ 1,424.00$ |
| :--- | :--- | :--- | :--- |

## Dental Coverage for Full-Time Students

All full-time students attending Acadia University are automatically enrolled in the Acadia Student Dental Plan, upon registration at Acadia University. The Dental Plan fee is automatically charged to your student account. Students may opt out of this plan and receive a credit for the fee by signing a waiver form at the Health Plan office (Old SUB Rm 610) NO LATER THAN September 30, 2016. No opt out requests will be accepted after this date. Proof of other comparable coverage is not required to opt out of the dental plan.

| Single person, 12 months | $\$ 155.00$ | Family ${ }^{*}$, 12 months | $\$ 328.00$ |
| :--- | :--- | :--- | :--- |

## Family Coverage

If you wish to add dependents to your Extended Health and/or Dental policy, you must contact the Health Plan Administrator before the last business day of the month in which your current academic year begins; otherwise you will be included in the single plan only.
*Please note: Insurance premiums are subject to change.

## Late Payments

Students are expected to make pay first-term tuition by September 7, 2016. Any student account not paid by the required payment dates will incur a $\$ 50.00$ late payment charge. Interest will be charged monthly at a rate of $1 \%$ per month on any outstanding balance as of the last working Thursday of the month following registration until such time as the account is paid in full.

Where a student has elected to pay fees in two installments, no interest will be charged on the second installment until the last working Thursday of the month following the first day of classes in January of that academic year.

Students who have outstanding accounts are:

- not permitted to register again;
- not permitted to receive or have sent an official transcript of their record;
- not recommended for any degree or diploma, until the debt has been paid;
- not permitted to access grade information.


## Residence

## Residence and Room Damage

Damage to university property is charged to the student responsible.

## Residence Room Occupancy

Rooms will not be held beyond the first day of classes unless the Residence Life Office is notified, in writing, of late arrival. The occupancy period is the published date for opening of the residences in each term and 24 hours after the student's last examination in each term.

For graduating students and student who require accommodation for academic reasons, rooms will be available at a daily rate, in a designated residence, from the published date that residences close at the end of the academic year, until after convocation. All food costs are at the student's expense. Rooms will be available at a daily rate, in a designated residence, for students required for academic reasons, to remain on campus after residences close at the end of each term. All food costs are at the student's expense.

When applying for residence accommodation outside the normal occupancy period, the student agrees with all arrangements set by Residence Life regarding residence occupancy and the daily rate associated with the said room occupancy.

Residence Fees

|  | Single <br> Room | Seluxe <br> Single | Single In <br> Suite | Premium <br> Single | Private <br> Suite | Double <br> Room | Deluxe <br> Double |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Chase <br> Court | $\$ 6685$ | $\$ 7510$ | $\$ 7850$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ |
| Chiman <br> House | $\$ 6685$ | $\$ 7510$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\$ 5730$ | $\mathrm{n} / \mathrm{a}$ |
| Christofor <br> Hall | $\$ 6685$ | $\$ 7510$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\$ 5730$ | $\mathrm{n} / \mathrm{a}$ |
| Crowell <br> Tower | $\$ 5560$ | $\$ 6295$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\$ 4810$ | $\mathrm{n} / \mathrm{a}$ |
| Cutten <br> House | $\$ 6395$ | $\$ 7150$ | $\mathrm{n} / \mathrm{a}$ | $\$ 7955$ | $\mathrm{n} / \mathrm{a}$ | $\$ 5465$ | $\mathrm{n} / \mathrm{a}$ |
| Dennis <br> House | $\$ 6685$ | $\$ 7510$ | $\$ 7850$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\$ 5730$ | $\mathrm{n} / \mathrm{a}$ |
| Eaton <br> House | $\$ 6685$ | $\$ 7510$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\$ 8920$ | $\$ 5730$ | $\mathrm{n} / \mathrm{a}$ |
| Raymond <br> House | $\$ 6395$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\$ 7955$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ |
| Roy Jodrey <br> Hall | $\$ 7510$ | $\mathrm{n} / \mathrm{a}$ | $\$ 7850$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ |
| Seminary <br> House | $\$ 6395$ | $\$ 7150$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\$ 5465$ | $\mathrm{n} / \mathrm{a}$ |
| War <br> Memorial <br> House | $\$ 6395$ | $\$ 7150$ | $\$ 7075$ | $\$ 7955$ | $\mathrm{n} / \mathrm{a}$ | $\$ 5465$ | $\$ 5680$ |
| Whitman <br> House | $\$ 6685$ | $\$ 7510$ | $\$ 7850$ | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | $\$ 5730$ | $\mathrm{n} / \mathrm{a}$ |

Residence campus program fee - $\$ 40$
Residence accommodation may only be booked to coincide with the academic terms in which a student is registered.

## Student Meal Plans

Meal plans are compulsory for all students living in residence. Off-campus students may opt to participate in a meal plan.

## Unlimited Dining

| 5 Day Plan | $\$ 4,254.00$ |
| :--- | :--- |
| 7 Day Plan | $\$ 4,369.00$ |
| 7 Day Plus Plan (includes $\$ 325$ in non-refundable Dining Dollars*) | $\$ 4,598.00$ |
| 7 Day Max Plan (includes $\$ 650$ in non-refundable Dining Dollars*) | $\$ 4,774.00$ |

Commuter Plans - Off-campus students - non-refundable (taxes included) **

| 10 meals plus $\$ 25$ swipe and save dollars | $\$ 154.95$ |
| :--- | :--- |
| 35 meals plus $\$ 100$ swipe and save dollars | $\$ 542.75$ |
| 6o meals plus $\$ 175$ swipe and save dollars | $\$ 847.75$ |
| 8o meals plus $\$ 250$ swipe and save dollars | $\$ 1,087.20$ |

*Dining Dollars are neither non-refundable or transferable.
** Commuter meal plans are non-refundable except when a student is withdrawing from Acadia. A $\$ 40$ administrative fee will be applied to any refunds of this nature.

## Cancellation and Withdrawal

## Undergraduate Withdrawals

Students who wish to withdraw must notify the Registrar's Office in writing. Students ceasing their studies without notifying the Registrar's Office in writing are not eligible for adjustments to their fees. No financial records will be adjusted due to reassessment of withdrawal date after six-months from the last day of exams each academic term. Students withdrawing from university during the academic year (September to April) will be charged as follows:

|  | DATE | ACADEMIC \& STUDENT FEES | RESIDENCE | MEAL PLAN |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Aug 31/16- } \\ & \text { Sep 18/16 } \end{aligned}$ | 100\% refund | 90\% refund of fall term room cost PLUS room cancellation fee of \$100 for new students and $\$ 300$ for returning students | $90 \%$ refund of fall term meal plan cost |
|  | $\begin{aligned} & \text { Sep } 19 / 16- \\ & \text { Sep } 25 / 16 \\ & \hline \end{aligned}$ | 80\% refund | $80 \%$ refund of fall term room cost | 80\% refund of fall term meal plan cost |
|  | $\begin{aligned} & \text { Sep } 26 / 16- \\ & \text { Oct } 2 / 16 \\ & \hline \end{aligned}$ | 60\% refund | 60\% refund of fall term room cost | 60\% refund of fall term meal plan cost |
|  | $\begin{aligned} & \text { Oct } 3 / 16 \text { - Oct } \\ & 9 / 16 \end{aligned}$ | 40\% refund | 40\% refund of fall term room cost | 40\% refund of fall term meal plan cost |
|  | $\begin{aligned} & \text { Oct 10/16- } \\ & \text { Oct 16/16 } \end{aligned}$ | 20\% refund | 20\% refund of fall term room cost | 20\% refund of fall term meal plan cost |
|  | $\begin{aligned} & \hline \text { Oct } 17 / 16- \\ & \text { Jan } 8 / 17 \end{aligned}$ | 0\% refund | o\% refund of fall term room cost and $80 \%$ refund of winter term room cost | o\% refund of fall term meal plan cost and 100\% refund of winter term meal plan cost |
|  | $\begin{aligned} & \text { Jan 9/17-Jan } \\ & 17 / 17 \\ & \hline \end{aligned}$ | 100\% refund | $80 \%$ refund of winter term room cost | $80 \%$ refund of winter term meal plan cost |
|  | $\begin{aligned} & \text { Jan } 18 / 17- \\ & \text { Jan } 24 / 17 \end{aligned}$ | 80\% refund | $80 \%$ refund of winter term room cost | $80 \%$ refund of winter term meal plan cost |
|  | $\begin{aligned} & \text { Jan } 25 / 17- \\ & \text { Jan } 31 / 17 \\ & \hline \end{aligned}$ | 60\% refund | $60 \%$ refund of winter term room cost | $60 \%$ refund of winter term meal plan cost |
|  | $\begin{aligned} & \text { Feb } 1 / 17-\text { Feb } \\ & 7 / 17 \end{aligned}$ | 40\% refund | $40 \%$ refund of winter term room cost | $40 \%$ refund of winter term meal plan cost |
|  | $\begin{aligned} & \text { Feb } 8 / 17-\mathrm{Feb} \\ & 14 / 17 \end{aligned}$ | 20\% refund | $20 \%$ refund of winter term room cost | $20 \%$ refund of winter term meal plan cost |
|  | $\begin{aligned} & \text { Feb } 15 / 17- \\ & \text { Apr } 25 / 17 \\ & \hline \end{aligned}$ | 0\% refund | 0\% refund | 0\% refund |

## Residence Cancellation Fees

New student canceling room reservation (deposit not returned) \$200
Returning student canceling room reservation:
Cancellations received between May 1, 2016 and June 30, $2016 \quad \$ 150$
Cancellations received between July 1, 2016 and arrival day

## Scholarships

Acadia University award (includes scholarship and bursary) recipients will have their award amount(s) adjusted per term according to the "Academic and Student Fee" withdrawal policy up to the amount due payable to cover mandatory academic and student fees as well as any applicable on campus residence and meal costs.

## Axe Cash and Campus Store Accounts

The Axe Cash and Campus Store accounts are designed to safeguard money for school and personal expenses. These funds can be used to purchase meals, snacks, books, printing and supplies; with more services on the way. Any unused balance over $\$ 5$ is refunded after the Fall/Winter session. Please visit www.acadiau.ca/campuscard for a complete list of retail locations on and off campus, services and deposit options.

## ASU Health and Dental Plan

Beginning in September 2016, should a student withdraw, health and dental plan fees will not be adjusted after the established deadline to opt out. Health and Dental benefits will terminate when the student withdraws (Canadian students must be registered full-time to be eligible.)

## Online Courses

Students withdrawing from an online/distance course must inform Open Acadia in writing, or through the withdrawal form on the Open Acadia website. If the withdrawal request is received within two weeks of the start date of the course, and no course work has yet been submitted, there will be a full refund less a $\$ 50$ administrative fee. If the withdrawal request is received after two weeks of the start date of the course, but within four weeks, and no coursework has yet been submitted, there will be a $\$ 250$ administrative fee. Any refund will be through the same method of payment that was used for the original payment.

If a student withdraws at any time within the four-week period, and any coursework has been submitted, the refund will be based on the following criteria:

- if the course work submitted (based on the Instructor's assessment) is less than $50 \%$ of the course total, the refund will be $50 \%$ of the tuition fees;
- if the course work submitted (based on the Instructor's assessment) exceeds 50\% of the course total, there will be no refund.

If your withdrawal request is received on or after four of the start date of the course, there will be no refund.

## Full-Time and Part-Time Graduate Student Withdrawals

## Program Withdrawal

Graduate students who wish to withdraw from their program, must in writing, contact the Graduate Coordinator in their department/school and the Division of Research and Graduate Studies.

## Course Changes

Graduate students wishing to add/drop courses will follow the same procedures as outlined under Registration Procedures. (p. 43)

## Refunds

Refunds and course withdrawal penalties are calculated as of this day based on the "Academic and Student Fees" section.

## Graduate Awards

Payment of Graduate Awards, including Acadia Graduate Scholarships and Acadia Graduate Teaching Assistantships, and funds from external grants/scholarships, will cease immediately upon termination of enrolment in any graduate program.

## Income Tax Documents

The Tuition and Education Credit Certificate (Income Tax form T2202A), is available for download by the student through their Acadia Central account. The Statement of Pension, Retirement, Annuity, and Other Income (Income Tax form T4A) is mailed to the student's permanent address on file. These documents are released to students by February 28th of each year.

## PART IV: RECORDS AND REGISTRATION

## Student Academic Records

Students' academic records, including their official University files, are maintained by the Registrar's Office and are the property of the University. Access to records and release of information from them is governed by University policies and the laws of the Province of Nova Scotia (Freedom of Information and Protection of Privacy Act, S.N.S. 1993, Ch. 5) and the Country of Canada (Personal Information Protection and Electronic Documents Act).

In addition to the internal policies, procedures, and practices of the University and the requirements of the provincial FOIPOP legislation and the national PIPEDA legislation, as a public institution, the University is mandated to collect and report annually to Statistics Canada through the Maritime Provinces Higher Education Commission (MPHEC). The types of information included in this P.S.I.S. project, the uses to which that data is put, and the opting-out mechanism for those students who do not wish this material about them to be used in any fashion are available on request from Statistics' Canada's website (www.statscan.ca) or by writing to the Postsecondary Section, Centre for Education Statistics, $17^{\text {th }}$ Floor, R.H. Coats Building, Tunney's Pasture, Ottawa ON K1A oT6.

International students also should be aware that Acadia University is required to report on international student enrolment status to Citizenship and Immigration Canada. For more information, please visit their website at: www.cic.gc.ca.

## Information Contained in Student Records

The following information is included in the student record:
a. Personal information (name, address, phone number(s), date of birth, citizenship, etc.). Each student is required to provide his or her complete legal name. Any requests to change a name must be accompanied by appropriate supporting documentation;
b. Basis of admission (application, record of previous studies, letters of recommendation, test results, etc.);
c. Enrolment information (program(s) of study, dates of attendance, courses attempted/completed);
d. Performance information (distinctions, sanctions, degrees obtained, etc.);
e. Results of appeals and petitions filed by the student;
f. Medical information relevant to the student's academic performance provided by the student or with his/her consent.

## Release of Information About Students

Disclosure to Students of Their Own Records
a. Students have the right to inspect their academic record, except for information that is evaluative or opinion material compiled solely for the purpose of admission to an academic program, and to challenge contents, which they believe to be inaccurate. An employee of the Registrar's Office will be present during such an inspection.
b. Students will, on submission of a signed request and payment of the current fee, have the right to receive transcripts of their own academic record. These transcripts will be marked "Issued to Student." Such right will not apply to students in debt to the university but they will still have the right to inspect and review their records.
c. No partial transcripts of records will be issued.

## Disclosure to Faculty, Administrative Officers, and Committees of the University

Information on students may be disclosed without the consent of the student to university officials or committees deemed to have a legitimate educational interest.

## Disclosure to Third Parties

a. The following information is considered public information and may be released without restriction, unless the student has requested that it be kept confidential: name; period of registration; program of studies; certificates, diplomas, degrees awarded.
b. Voting lists will be supplied to the ASU in order to conduct elections.
c. Information will be released without student consent to persons in compliance with a judicial order or subpoena or as required by federal or provincial legislation.
d. Necessary information may be released without student consent in an emergency, if the knowledge of that information is required to protect the health or safety of the student or other persons. Such requests should be directed to the Registrar.
e. Other than in the above situations, information on students will be released to third parties only at the written request of the student, or where the student has signed an agreement with a third party, one of the conditions of which is access to their record (e.g. in financial aid).
f. Upon graduation, some personal information will be entered into the alumni database and becomes subject to their privacy policies. The information will be used to notify graduates of university programs and activities, including fundraising and to communicate concerning alumni initiatives, including products or services to alumni. If graduates prefer not to receive such information, they should contact the alumni office on campus in person, by telephone or by email at alumni.office@acadiau.ca

This policy is in accordance with the Nova Scotia Freedom of Information and Protection of Privacy Regulations.

## Transcripts

A student's transcript of record is considered privileged information and will not be released to any individual outside of the University without the prior written consent of the student. As required by their appointment within the University, academic administrators have access to student academic records.

Transcripts include the following information: a) program(s) of study, major(s); b) advanced standing or transfer credit hours; c) grades for all courses attempted while at Acadia, c) a student's academic standing, d) distinctions and scholarships, including placement on the Dean's List. All transcripts carry only the student's birth month and day. The year of birth is not included.

## Records Retention Policy

The University stores student records in physical (paper) and in electronic (machinereadable) form. With the exception of those files containing documents pertaining to disciplinary action, physical records will normally be destroyed three years after graduation or last attendance at the university. Documentation submitted by applicants who are not accepted, or by applicants who fail to enroll following acceptance, is normally
destroyed at the end of each admission cycle. All portions of a student's record that are needed to produce official transcripts are maintained permanently.

## Record Changes

Students are responsible for maintaining the accuracy of their record through Acadia Central or by contacting the Registrar's Office and completing the required forms.

Registration in courses also consists of maintaining the accuracy of biographical information (i.e., addresses, and telephone numbers, name). Students are expected to make changes through Acadia Central as required or to contact the Registrar's Office for assistance. The Registrar's Office can only process changes submitted in writing. Changes made in any other way, formally or informally, are not honored.

## Communication

During the academic year, all communications are mailed to local addresses. Therefore, students are urged to keep their information up-to-date in Acadia Central. During the summer months, communications are normally sent to the students' permanent addresses unless an alternate address has been filed with the Registrar's Office prior to the advertised deadlines.

In accordance with the University's communication policy, all students are expected to activate and maintain an Acadia e-mail address. The e-mail address assigned to a student by the University will be the only e-mail address used by Acadia for official communication with students for academic and administrative purposes.

## Advice and Information

Students who require academic advice or information regarding program planning are encouraged to seek it from their academic advisor. Students unsure who their academic advisor is should contact their department head or program coordinator for more information. Students seeking general academic advice and/or information about registration, such as deadlines, policies, procedures, resources, etc. are encouraged to visit the Office of the Registrar's website (https://registrar.acadiau.ca) or to contact the Office directly (902-585-1222; registrar@acadiau.ca, first floor University Hall).

The University also has a first-year advisor and an Aboriginal-student advisor available to help with questions and provide information and support. For more information or to schedule an appointment, see: http://studentservices.acadiau.ca/.

## Scheduling of Courses

The regular hours of the University are Monday to Friday, with classes running between 8:30 a.m. and 10:00 p.m. The University reserves the right to change the times and the academic instructor(s) of a course from those advertised in the official Timetable posted on Acadia Central.

A 3-credit course will have a minimum of 36 contact hours.

## Registration Procedures

Registration procedures are the responsibility of the Registrar and will be made known to students, instructors, and administrators via the Registrar's website
(https://registrar.acadiau.ca) as well as through email communication.

## Academic Levels for Undergraduate Students

Academic Level 01: 0-24 completed credit hours
Academic Level 02: 25-54 completed credit hours
Academic Level 03: 55-84 completed credit hours
Academic Level 04: 85-114 completed credit hours
Academic Level 05: 115 or more completed credit hours

## Registration Policy

It is each student's responsibility to ensure that their course registrations and course changes meet their degree requirements.

The University reserves the right to limit enrolment in any course, course section, or program, but will make every reasonable effort to offer courses required for specific programs and give priority in course registration to students in that program. It does not guarantee enrolment in any course or course section not required for a student's program. Registration is not completed until fees are paid.

See the dates section at the front of this calendar for the dates and deadlines for course additions and withdrawals. The notation ' F ' (failed) will appear on the student's official record for courses dropped after the last day to withdraw unless permission has been granted by the Dean for the course to be discontinued without academic penalty for substantial medical, psychological or compassionate reasons.

Not every course described in this calendar will necessarily be offered in any given year. The academic timetable is normally available on Acadia Central by late-winter.

## Undergraduate Registration Procedures

All students will receive registration information through their Acadia email account about the following year's registration cycle. It is each student's responsibility to ensure they complete the registration process and submit payment with the specified deadlines.

Students should register online through Acadia Central. Students are required to create a conflict-free class timetable.

## Graduate Student Registration Procedures

Students will be registered in the thesis course (if applicable) by the Graduate Studies Officer at the start of each semester for the entirety of the degree program until the requirement is either met, or the time limit is exceeded.

To register in courses other than the thesis, students are required to meet with their Graduate Coordinator to establish their schedule. The Graduate Coordinator will forward this information to the Graduate Studies Officer for entry into the student system. Students enrolled in a program with a set curriculum (MA in English, MSc in Psychology), will be registered in those courses by the Graduate Studies Officer.

Registration is only complete once a student has paid the required fees through the Student Accounts Office.

## Prerequisites

Prerequisites are stated in the Academic Calendar course description. Where a prerequisite is stated, it is understood that equivalent courses may be used to satisfy the requirements.

## Course Loads

## Course Load During the Fall/Winter Term

The normal course load for full-time undergraduate students in the fall-winter term is thirty credit hours (30h), or fifteen hours (15h) per term. The course load for part-time undergraduate students in the fall-winter term is less than nine credit hours (9h) per term.

## Course Load During Intersession

A maximum of nine hours (9h) may be taken in each 6-week period of intersession, except in the science courses with laboratories and graduate courses where the maximum is six (6h). Thus a maximum of eighteen hours (18h) may be taken between the winter term and the subsequent fall term.

## Course Load for Online Courses

Part-time students may register for a maximum of 12 h of online learning courses at any one time.

## Overloads

Students who have achieved a sessional grade point average of 2.5 in the previous academic year may register for 33 h . Those who have achieved a sessional grade point average of 3.0 or better in the previous academic year may register for 36 h . First-year students may register in no more than 30 h . No student may register for more than 18 h in any term.

## Auditing Courses

An Audit Student has been granted permission by the instructor to attend lectures in a course on the understanding that the student may not participate in class discussions (except by invitation of the instructor), submit assignments, or sit for examinations. No degree credit is granted for the course. No record is kept of audits. Graduate students are not permitted to audit courses. Online courses may not be audited.

## Co-operative Education (Co-op)

Co-operative Education (Co-op) is an educational strategy that formally integrates academic studies with discipline related, paid work experience with participating employers in all sectors including not-for-profit and for-profit organizations; all levels of government; small, medium, and large corporations, primarily (not limited to) within Canada. Co-op students apply the concepts and theories they learn in the classroom to relevant, real world situations enhancing their understanding of their program of study. Co-op work experience enables students to refine their career goals guiding them to relevant, full-time employment upon graduation or motivating them to pursue further education.

Students apply for admission to Co-op after completing a minimum of 24 credit hours. Applications are due to the Co-op Office by early October each year. Students who have
completed more than 75 credits hours are no longer eligible to apply. A minimum cumulative 2.5 GPA is required at the time of application. All new Co-op students are required to attend professional development workshops in preparation for their first Coop work term. Students alternate study terms with Co-op work terms, completing 3 fourmonth Co-op work terms with an optional fourth, or a 12 to 16-month internship, ending on a study term, to complete Co-op. Each Co-op work term is a course with corresponding tuition fee, which is awarded a pass or fail grade. Completion of the third Co-op work term or a 12 to 16 -month internship results in the acquisition of a total of three credit hours. Co-op is noted on the student's final transcript of marks as well as on the degree parchment. See Co-op course descriptions for further details on course requirements.

Students completing Co-op will normally take an additional term to complete their degree, graduating with the added benefit of a year or more of practical experience in their field of study. Studies show that Co-op graduates gain employment sooner after graduation, have higher starting salaries, and are more likely to find employment related to their degree area than non-Co-op graduates. For further information, visit http://co-op.acadiau.ca.

## Online Learning

Over 100 online courses are offered using a variety of media. Most online courses are continuous-intake and are self-paced. Students typically have up to 6 months to complete a 3 h course or up to 12 months to complete a 6 h course.

Full-time Acadia students may take online courses during the April-August period or at any other time by permission of the Dean, Director or Department Head. Note that Acadia students graduating in May must write their final examinations by April 15th to allow time for the processing of grades before graduation.

## Spring and Summer On-Campus Courses

Intersession courses are delivered during the months of May, June, July, and August. Over 80 courses in subjects for most disciplines are offered during compressed terms. Most courses are three weeks in duration, including Graduate Education courses offered by the School of Education through Open Acadia.

## Summer Institutes for Teachers

Intensive Summer Institutes are offered to meet the schedules of teachers and counsellors. Institutes are usually three weeks in duration with morning and afternoon classes, which allow teachers to take two graduate-level Education courses concurrently, as may be necessary. Pre-course and post-course work is required for graduate education courses in the School of Education's Summer Institute.

## Open Acadia

Open Acadia offers a diverse and exciting selection of personal enrichment and professional development programs, as well as a music academies and science seminars for youth.

## English for Academic Purposes (EAP)

This program is Acadia's intensive Academic English language immersion program. It is designed for students who need to improve their language skills in preparation for academic studies at university. There are five levels in the EAP program (250, 500, 1000,

2000, and Bridging) from high beginner to advanced. Students in the Bridging level take a 3-hour academic credit course in addition to full-time EAP study. Students must pass the Bridging level with a B or better to enter their degree program studies.

## Customized Language Programs

A wide variety of customized language programs are available through Open Acadia. These include courses in English for Professional or Specific Purposes, English as a Second Language, and True Beginner English for Academic Purposes. Summer institutes, and programs for youth may also be offered. These programs may be delivered on campus, online, or in off-site locations.

## Acadia Lifelong Learning Centre

The Acadia Lifelong Learning Centre (ALL) is a community-driven initiative of Open Acadia that provides quality educational opportunities for older adults. ALL offers short courses and lectures that bring the university to the community in a meaningful way. The benefits of being an ALL member include free ALL seminars, undergraduate credit course audits (some restrictions apply), and access to the Vaughan Memorial Library.

## Huggins High School Science Seminar

Each year in early May, expert scientists are invited to the Huggins High School Science Seminar to share their work and passion for science in this lecture series for exceptional high-school youth. The program is a partnership between Open Acadia and the Faculty of Pure and Applied Science, and is for students in grades 10-12 interested in pursuing science in their post-secondary education.

## Summer Music Academies

Every July, Acadia welcomes over 100 young musicians to our campus for Summer Music Academies. Two camps are offered: Concert Band Camp and Collaborative \& Creative Music Camp. In Concert Band Camp (ages 10-18) students will learn and grow as musicians by starting at the right level for their musical development, from beginner to advanced. Collaborative \& Creative Music Camp (ages 14-23) focuses on topics like creativity and problem solving, and is open to vocalists, guitarists, and more. Students can live in an Acadia residence or join us as a day student. Local musicians of any age are also welcome to participate.

## Customized Programs

Open Acadia's professional development programs provide modular, flexible learning experiences for professionals who seek to retrain or diversify their skills. We can develop a unique program for you, and programs can be delivered in the most convenient location for your organization. We will coordinate all aspects of the program including development, course material preparation, scheduling, logistical arrangements (including catering), according to your requirements and budget.

## Academic Changes and Withdrawals

Students are responsible for the accuracy and completeness of their own registration, as well as the fees for courses in which they are registered.

## Course Changes and Withdrawals

It is the student's responsibility to initiate course changes. Discontinuing attendance in classes, notifying an instructor or stopping payment does not constitute official withdrawal from a course. Undergraduate students who wish to withdraw from a course,
add a course, or substitute one course for another, must do so through Acadia Central. Students may also do so in writing through the Office of the Registrar. Please refer to the Academic Schedule at the beginning of this calendar for all withdrawal dates. Graduate students wishing to make changes to their course registration will follow the same procedures outlined under Registration Procedures.

## Program Changes

Students who wish to transfer from one program to another must apply on a program change form and have it approved by the School Director, Department Head of the unit, or Program Coordinator for the program they wish to enter, and by the Registrar's Office. Normally students must have a GPA of at least 2 to enter a program and a GPA of 3 to enter an Honours program.

## Withdrawal from the University

## Undergraduate

Undergraduate students wishing to withdraw from a course or from the university must notify the Office of the Registrar in writing of their intention to withdraw. Discontinuing attendance in classes, failure to submit any assignments, notification to the instructor, or stopping payment, does not constitute official withdrawal. Students who decide not to attend the University must cancel their registration prior to the Add/Drop deadline.

## Graduate

Graduate students who wish to withdraw from their program must, in writing, contact the Graduate Coordinator in their department/school and the Division of Research and Graduate Studies.

## Important Note Regarding Grades Associated with Graduate Program Withdrawals

When a full-time graduate student formally withdraws from a degree program, the Dean of Research and Graduate Studies will refer to the University Calendar dates regarding possible course change penalties and then consult with the Director/Head of the School/Department regarding outstanding grades. When a continuing graduate student formally withdraws from studies, the student will receive a grade of " W " for the thesis or project course.

## Leaves of Absence (Graduate Students)

All graduate students taking a leave of absence must do so in the manner prescribed by the Division of Research and Graduate Studies. Students must complete and submit a "Leave of Absence" form to the Division of Research and Graduate Studies.

## Maternity/Parental Leave

Maternity/parental leave will be granted upon request to graduate students, without prejudice to their academic standing, for a period of up to 52 weeks. Where both parents are graduate students seeking leave, the combined total may not exceed 52 weeks. Leaves must be completed no later than 1 year after the date of birth or assumption of custody. Statutory periods for completion of the degree program will be extended by the length of the leave. Maternity/parental leave frees students from paying regular fees and at the same time releases the University from providing them with services. However, students may choose to maintain computer network, email, and library access during the period of the leave. Financial support from university sources will normally be suspended during the period of the leave and, where possible, will be reinstated upon completion of the
leave. It is the responsibility of the student to determine the status of funding from all external sources.

## Leave Due to Illness

A leave of absence due to illness will be granted upon request to graduate students, without prejudice to their academic standing, for a period of up to 52 weeks. Students will normally be granted such a leave only once in the course of their program. Statutory periods for completion of degree programs will be extended by the length of the leave. Leave due to illness frees students from paying regular fees and at the same time releases the University from providing them with services. However, students may choose to maintain computer network, email, and library access during the period of the leave. Financial support from university sources will normally be suspended during the period of the leave and, where possible, will be reinstated upon completion of the leave. It is the responsibility of the student to determine the status of funding from all external sources.

## Compassionate Leave

Graduate students will be provided with compassionate leave for a period of up to 52 weeks for the care and support of a seriously ill family member. This leave is not intended to cover circumstances related to travel, employment, or other financial concerns.
Statutory periods for completion of degree programs will be extended by the length of the leave. Once on leave, students will not be registered with the University, but they may choose to maintain computer network, email, and library access during the period of the leave. Financial support from university sources will normally be suspended during the period of the leave and, where possible, will be reinstated upon completion of the leave. It is the responsibility of the student to determine the status of funding from all external sources.

## Employment Leave

Full-time graduate students may take a leave of absence for employment reasons for a period of up to 52 weeks once in the course of their program. Students taking employment leaves are responsible for verifying that all required elements of their program will be available upon their return. However, students may choose to maintain computer network, email, and library access during the period of the leave. It is the responsibility of the student to determine the status of funding from all external sources.

## PART V: ACADEMIC REGULATIONS

## Acadia Degree Requirements

## Undergraduate

## Residency Requirements

Students may transfer to Acadia from other accredited universities up to the first 6oh required for a 120 h degree program. Students also may transfer from elsewhere 6 h of the last 60 h required for their intended degree.

## Time Limits of Undergraduate Curriculum

Students may fulfill the curriculum for the degree or diploma requirements stated either in the calendar current when they were accepted to their program or those stated in the calendar of the year of graduation, except (1) those readmitted following academic dismissal who must fulfill the requirements of the calendar of the year of readmission or of graduation, and (2) those taking more than seven years to fulfill requirements must fulfill those of the year of graduation, and (3) in those programs whose requirements must comply with criteria established by external bodies such as Departments of Education, CDA, etc.

## Extensions for Online Courses

One extension per online courses may be requested, with the following fee to apply: $\$ 150$ for a 6-month extension

Extension requests must be submitted in writing at least 30 days prior to the original completion date of the course, and the extension fee must accompany the request. Extension requests are subject to the approval of the Instructor and, if necessary, the appropriate Dean.

## Multiple Course Attempts

A head/director may refuse to grant permission for a student to register for a course more than twice. Only the most recent grade in repeated courses will be included in any GPA.

## Second Undergraduate Degree Requirements

A student holding one undergraduate degree from Acadia University, who wishes to obtain a second undergraduate degree from a different faculty or school, must complete a minimum of 30 h subsequent to completing the requirements of the first degree. This minimum 30 h must include all specific courses and grade requirements that are different from the first degree and must include a new major. Where the second degree requires a major concentration, at least 12 h of the 30 h must be in the discipline of that concentration.

## Honours Conversion Certificate

Students holding an ordinary undergraduate degree from Acadia University who subsequently complete additional studies that fulfill honours degree requirements, but in less than an additional 3oh, cannot be awarded a second degree. Rather, they will be issued a conversion certificate which indicates that they now hold the equivalent of an honours degree

## Graduation

Students must apply to graduate. Application deadlines appear in the Calendar at the front of this document. Students are encouraged to complete the application to graduate form on the internet when registering for the fall-winter session. A late fee is charged when an application for graduation is made after the published deadlines.

## University Scholar

A candidate for a bachelor's degree may be granted the designation "University Scholar" provided that the student has received credit for at least 90h taken from Acadia, obtained a CGPA of at least 3.5 on all Acadia courses, and obtained no mark below B- for any university course taken at Acadia or elsewhere, excluding results from study abroad programs.

## Dean's List Scholar

The Dean's List includes those full-time students (or those with 9 h or more with a Fall or Winter co-op placement) whose average falls in the range of the top $5 \%$ of non-graduating students in their degree, by faculty or school (based on those registered in and completed $30 h$ or more in each academic year of undergraduate study).

## Graduate

## Graduate Time Limits

Master of Arts, Master of Science, Master of Recreation Management All requirements for the 2-year degree programs (all Science, Recreation Management, Social and Political Thought) must be completed within six (6) years of first registration. All requirements for graduate degrees in Arts, not including Social and Political Thought, must be completed within five (5) years of first registration.

## Master of Education

All requirements for the degree must be completed within four (4) years of completion of course requirements, subject to a maximum of eight (8) years between first registration as a MEd student and completion of the requirements for the degree.

## Extension to time limits of curriculum

If a graduate student requires an extension to their time limits, they must apply using the prescribed form no later than three (3) months prior to the requested extension period. The extension requires the support of the thesis supervisor (in the case of non-thesis students the Graduate Coordinator) and the Department/School Head/Director. Extensions are not automatic, and will be granted only in cases of extenuating circumstances. The form can be located at:
$\underline{\text { http://gradstudies.acadiau.ca/tl files/sites/gradstudies/docs/ThesisExtension.pdf }}$

## An important note about program lapse

If there has been no application for program extension, and no formal withdrawal, the student will receive a grade of " $F$ " (fail) for the thesis or project course once the program time limits (above) have been reached.

## Academic Standing

## Undergraduate

Academic Standing is the status of a student based on his or her grade point average. Academic Standing is assessed after each fall/winter session. As a result of that assessment, students will find themselves in one of three situations:

## 1. Good Standing

All students registered in more than 15 h in the fall/winter session who obtain a sessional grade point average of at least 1.50 are considered to be in good academic standing and will be permitted to proceed on a fulltime basis.

## 2. Probation

All students registered in more than 15 h in the fall/winter session who obtain a sessional grade point average of at least 1 and less than 1.50 , and who have not already incurred probation, will be placed on academic probation, but are eligible to re-register. Students on probation may be placed on a reduced course load.

## 3. Dismissal

a. Any students registered in more than 15 h in the fall/winter session who obtain a sessional grade point average less than 1 will be placed on dismissal.
b. Any students placed on probation and registered in more than 15 h in the succeeding fall/winter session who obtain a grade point average less than 1.50 will be placed on dismissal.

All students who incur academic probation or dismissal will be advised in writing of their academic status, appeal procedures, and dates.

During the twelve-month period subsequent to incurring dismissal, students may not register for any course offered by Acadia University, nor be able to receive credit for any course taken elsewhere. At the end of this period of academic dismissal, students may apply for re-admission and, if accepted, will be on probation.

A student's current academic standing appears on their official record.

## Academic Success and Support Program (ASSP)

The Academic Success and Support Program enables students on probation to return to Acadia and work towards the skills required to be successful. The ASSP requires students to attend student success workshops, as well as to work with the program coordinator and other support staff in order to improve their academic standing.

## Bachelor of Education

## Progression into The Teaching Profession

Students who fall into any one of the following categories may be placed on probation and not permitted to proceed/continue/in their teaching practicum following a coursework term. Students who:

- fail to complete and submit their coursework before the beginning of the ensuing practicum
- fail a course in the BEd curriculum
- are found to be unprofessional according to the School of Education Professional Conduct Manual and NSTU Code of Ethics


## Dismissal from the BEd Program

Failure in any two courses (including field placement courses) in the BEd program will result in dismissal from the program.

## Graduate Students

All courses taken as part of the degree program must be completed with a grade of B- or better. In programs other than Psychology, students receiving less than B- in a course will have to repeat it if it is a compulsory course or repeat/replace it if it is a program elective; however, a student who has received grades lower than B- (70\%) in 6h of program courses is not permitted to continue in the graduate program and will incur academic dismissal. Departments/Schools may have additional requirements that must be met. Failure to meet these requirements may result in dismissal from the program. Dismissal from a program can only be done by the Dean of Research and Graduate Studies after consultation with the Head of the Department or School, the Graduate Coordinator of the Department or School, and the student in question.

Graduate students in Psychology who obtain a final grade below B- in any course must withdraw from the program, unless special permission to continue in the program is granted by the department.

A student may be dismissed from their graduate program if the Senate Graduate Studies Committee deems that he/she has exhausted all avenues for supervision within the department or school in which he/she is enrolled. This action can only be taken by the Dean of Research and Graduate Studies after a full hearing by the Senate Graduate Studies Committee, and after consultation with the Head of the Department or School, the Graduate Coordinator of the Department or School, and the student in question.

Appeals against dismissal may be made to the Senate Admissions and Academic Standing Appeals Committee through the Vice President Academic. Decisions of the committee are final.

## Course requirements for the Masters Degrees

Candidates for the master's degree may take courses of two kinds: program and nonprogram courses which are offered for credit towards the degree, and may be of three types: compulsory, elective, and make-up. (Candidates with insufficient background may be required by the department or school concerned to take make-up courses.) Education students may take a maximum of 12 credit hours at the graduate level as independent students before entering the MEd program.

All candidates take at least 12 credit hours in program courses of an advanced nature, at least 6 h of which should be at the $5000-l e v e l$.

Additional requirements may be included at the discretion of the department/school. Audits of graduate level courses are not normally permitted.

All departments and schools offering graduate programs are required to make available to students a listing of any deadlines or requirements specific to that unit.

## Thesis requirements for the Master's Degree

Except where the program specifically exempts it, every candidate for a Master's degree must prepare a thesis under the direction of a supervisor, who must be a faculty member
or a supervisory committee, appointed by the department/school or Dean of Research and Graduate Studies. Candidates for a master's degree with thesis will be required to defend this thesis orally, the examination being held at Acadia.
The thesis must be written in English and be prepared in a format approved by the department or school and the Division of Research and Graduate Studies. A detailed leaflet on the preparation and presentation of theses is available on the Division of Research and Graduate Studies website at:
http://gradstudies.acadiau.ca/tl_files/sites/gradstudies/docs/ThesesPreparation.pdf

## Academic Integrity

Academic integrity demands responsible use of the work of other scholars. It is compromised by academic dishonesty such as cheating and plagiarism. A student who is uncertain whether or not a course of action might constitute cheating or plagiarism should seek in advance the advice of the instructor involved. The following are considered infractions of academic integrity and may lead to sanction:
a. Cheating is copying or the use of unauthorized aids or the intentional falsification or invention of information in any academic exercise.
b. Plagiarism is the act of presenting the ideas or words of another as one's own. Students are required to acknowledge and document the sources of ideas that they use in their written work.
c. Self-plagiarism is also a form of plagiarism. It is the presentation of the same work in more than one course without the permission of the instructors involved.
d. A student who knowingly helps another to commit an act of academic dishonesty is equally guilty.

Penalties are levied in relation to the degree of the relevant infraction. They range from requiring the student to re-do the piece of work, through failure on that piece of work, to failure in the course, and to dismissal from the university.

## Procedures Concerning Infractions of Academic Integrity

a. Faculty members, after informing their director/head and contacting the student involved, shall attempt to determine the personal responsibility of the student and impose penalties where appropriate.
b. The student can appeal the faculty member's decision to the director/head and, if still not satisfied, to the dean.
c. The student can appeal the dean's decision to the Vice-President Academic who shall inform the student of his/her decision as to the student's personal responsibility and the penalty imposed.
d. A student has the right to appeal the decision of the Vice-President Academic to the Senate Committee on Academic Discipline. Students have the right to have legal counsel when appearing before this committee.
e. Technology Services and the Vaughan Memorial Library publish policies for the use of university computer facilities, both hardware and software and the use of the university library and its resources. Violation of these policies, or other abuse of university computer facilities, will be dealt with in the same manner as other forms of cheating or as a non-academic offence. For the dedicated purpose of inter-institutional loan and document delivery services, patron records may be stored on a remote database. Some violations may also lead to criminal prosecution. It is the students' responsibility to familiarize themselves with the Technology Services policies.

## Evaluation

## The Syllabus/Course Outline

At the beginning of each course, professors are required to indicate, in writing, the workload for the course, the required elements for completion, together with the appropriate tentative dates and values of tests, term papers, quizzes and other assignments, attendance requirements and the value of final examinations.

No credit is given for a course unless all requirements for it have been completed.

## Scheduling of Tests/Major Assignments

Tests cannot be scheduled within the last ten days of classes in each term, except for routine weekly or end-of-chapter tests or daily exercises necessary to the presentation of a course, laboratory tests, and oral examinations in the languages. Tests and/or examinations may not be held in the study days prior to either the fall or winter term examination periods. All term papers must be due to instructors no later than the last scheduled class.

## Grading System

The grade point average is the weighted sum of the grade points earned divided by the number of courses attempted. Courses with a notation of 'W' are not included in the GPA.

- The sessional grade point average (SGPA) refers to a particular session
- The program grade point average is calculated on courses offered towards a degree program and is used to determine a students' eligibility to graduate. It does not appear on the official transcript.
- The cumulative grade point average (CGPA) is calculated on all courses taken, and does appear on the official transcript. Only the most recent grade in repeated courses will be included in any GPA.

| Alpha grade | GPA <br> value | Percentage <br> range* | Rating |
| :--- | :--- | :--- | :--- |
| A+ | 4 | $94-100$ |  |
| A | 4 | $87-93$ | Excellent |
| A- | 3.67 | $80-86$ |  |
| B+ | 3.33 | $77-79$ |  |
| B | 3 | $73-76$ | Good |
| B- | 2.67 | $70-72$ |  |
| C+ | 2.33 | $67-69$ |  |
| C | 2 | $63-66$ | Average |
| C- | 1.67 | $60-62$ |  |
| D+ | 1.33 | $57-59$ |  |
| D | 1 | $53-56$ | Pass |
| D- | 0.67 | $50-52$ |  |
| F | 0 | $0-49$ | Failure |
| W |  |  | Withdrew |
| S |  | awaiting grade from special <br> exam/incomplete |  |

## Mid-term grades

Five days before the last day to drop a course without penalty, instructors are to inform their students of their course standing so that students can seek advice from their advisors if they feel it necessary. Instructors are to have available an indication of the relative standing of each student for the use of the Dean should such information be requested.

## Release of grades to students

Instructors are requested not to give any information regarding mid-year or final grades to students. Students should obtain final grades from the Registrar's Office only, through Acadia Central.

## Credit for Non-Acadia Courses

## Transfer Credit

Transfer credit may be given for individual courses taken at other accredited universities or institutions. All courses transferred for credit must be applicable to the student's program of study at Acadia University and may reduce the total number which must be taken for a degree at Acadia.

Transfer credits should be distinguished from Advanced Standing. Advance Standing is placement at a certain level in a specific subject area by a school or department of the University. Credit cannot be given for non-university courses or for knowledge obtained elsewhere, however valuable it may be. Advanced standing may be given for such knowledge, however.

Credit is not given for courses taken elsewhere while a student is on academic dismissal from Acadia.

## Transfer Credits for Master's Degrees

With the approval of the department/school, students may be eligible to transfer a maximum of 12 credit hours to a graduate program, provided they offer the minimum of 6h of graduate courses towards their Acadia degree. An evaluation of transfer credit is made by the academic unit in consultation with the Registrar upon admission.

Students who have started a master's program may transfer credit up to the 12 h limit provided they receive approval in writing, and in advance, from the relevant Department or School. If approval is obtained, the Registrar will issue an appropriate letter of permission to the university that the student wishes to attend. No other arrangement, verbal or written, constitutes an agreement for the transfer of credit.

## Letters of Permission (LOP)

A student enrolled at Acadia University, who wishes to take a course at another university for transfer of credit to Acadia, must obtain approval in writing and in advance for this through the Office of the Registrar. If approval is obtained, the Registrar will issue an appropriate letter of permission for the student to provide to the university that the student wishes to attend. A transcript of the student's record will be sent. A fee is charged for this service. Applicants are reminded that normally the last 6oh required for a degree must be taken at Acadia.

Please note: Letter of Permission students who are potential graduates must have their exams written and official transcripts sent to the Registrar's office one month prior to their graduation date.

## Exams

December examinations are held for all first term courses, for all 1000-level courses, and may be required in any two-term course. Examinations are held in April for all second term and all two-term courses. Examination schedules are posted in September and January. The final examination may be conducted as a formal scheduled examination or as a take-home examination. In the case of a take-home examination students are allowed the whole examination period to complete them and must submit their papers no later than the day of the last scheduled examination.

Examinations must be conducted during the examination periods established in this calendar unless an individual student is permitted to write at a later time. The circumstances that can lead to a deferred examination are outlined under the heading 'Special Examinations' below.

## Special Examinations

A student, who, because of unavoidable circumstances, was detained or rendered unfit to write a required examination, may request a Special Examination.

## Special Exams for Medical Reasons

A student who wishes to have such a request considered must within 48 hours after the end of the examination, report, or have a representative report, to the Registrar (in writing if possible) the intention to request a special examination and within one week after the end of the examination submit to the Registrar a written request for a Special Examination. This request must be accompanied by an explanation of the circumstances that made it impossible for the student to write the regular examination and a medical doctor's report.

## Special Exams for Non-Medical Reasons

a. A student who wishes to have such a request considered must within 48 hours after the end of the examination, report, or have a representative report, to the Registrar (in writing if possible) the intention to request a Special Examination and within one week after the end of the examination submit to the Registrar a written request for a special examination. This request must be accompanied by an explanation of the circumstances that made it impossible for the student to write the regular examination and any supporting documentation.
b. After reviewing the written request and accompanying documentation, the Registrar will consult with the course instructor as to the legitimacy of the request.
c. Should the Registrar and the course instructor agree that the student be allowed to write the final examination, the procedures for Setting and Conducting a Special Exam shall be followed.
d. Should the Registrar and the course instructor agree that the student not be allowed to write the final examination, the Registrar shall communicate that decision to the student in writing, apprising the student of the right to appeal the joint decision.
e. A student who wishes to appeal the joint decision of the Registrar and the course instructor must do so in writing to the Admissions and Academic Standing

Committee (Appeals) through the VPA within seven days of receiving the decision.
f. Should the Registrar and the course instructor disagree, the matter shall be referred to the Admissions and Academic Standing Committee (Appeals).
g. Where the student is appealing the joint decision of the Registrar and the course instructor, the Admissions and Academic Standing Committee (Appeals) shall convene within a reasonable length of time of the VPA's receipt of the written appeal, based upon the circumstances.
h. Where the Registrar and the course instructor disagree, the Admissions and Academic Standing Committee (Appeals) shall convene within a reasonable length of time of the meeting between the Registrar and the course instructor, based upon the circumstances.
i. The Admissions and Academic Standing Committee (Appeals) shall meet individually with the Registrar, the student, and the course instructor before rendering its decision in camera.
j. The decision shall be made by simple majority and it shall be binding.
k. The decision shall be communicated in writing to the Registrar, student, and course instructor.
l. Should the committee decide to allow the Special Examination, the procedures for Setting and Conducting a Special Exam shall be followed.

## Setting and Conducting Special Exams

The responsibility for setting and conducting special examinations will lie with schools and departments. Special examinations should be completed as soon as possible and normally (i.e. wherever possible) by the end of the January immediately following for December exemptions and by the end of the May immediately following for April exemptions.

## Re-Read Procedure

Any request to re-read an examination paper (or its equivalent in a course using an alternative form of assessment) must reach the Registrar within 30 days after release of the final examination results. The request must be accompanied by a fee of $\$ 10$ which will be refunded only if the mark is raised. All requests for a re-read will be directed by the Registrar to the director or head concerned for implementation. Re-reads of examinations will be conducted by the head/director of the unit involved and a second faculty member who has expertise in the subject area, after consultation with the original instructor. In the event that the head/director is the instructor, the dean will designate a replacement to conduct the re-read.

Re-reads may be requested in any or all courses in which a student is registered without reference to class standing or the final grade assigned. A re-read of a mid-year examination will be granted only after consultation with the head of the department or director of the school concerned. A student who requests a re-read in a course forfeits the grade originally assigned. Students have the right to review a written examination paper in the presence of the instructor.

## Interpretations and Appeals

In the case of an inconsistency, the general academic regulations contained in this calendar prevail over the regulations of faculties, schools, and departments, and regulations of the faculties over those of departments. Interpretation of the regulations will be provided by a Dean or by the Registrar. Written appeals against the application of regulations may be made to the Admissions and Academic Standing Appeals Committee.

## Procedures for Complaints in Academic Matters

A complainant should first attempt to resolve the matter with the instructor. If it cannot be so resolved, the complaint, preferably in writing, must be presented to the appropriate head of department or director of the school who will conduct an investigation and attempt a resolution. If the matter cannot be settled by the head/director, it shall be referred to the appropriate dean of faculty. Any complainant may at any time have the assistance of the Vice-President Academic of the Acadia Students' Union.

For procedures concerning academic integrity, please see the academic integrity section of this calendar.

## Discipline

The authority for Acadia University's judicial system derives from the power granted to the Board of Governors by the Province of Nova Scotia under the University's Act of Incorporation in 1891. These powers are exercised on behalf of the Board of Governors by the Senior Director Student Affairs. The system itself is fundamentally informal, and the Judicial Board is staffed by students, faculty, members of the University's administration and Acadia Students' Union, none of whom are trained legal experts. Nevertheless, care has been taken to build into it the elements of natural justice, while at the same time, providing for the relatively speedy resolution of complaints. To this end, specific time limitations and procedures have been established, the option of a pre-hearing settlement rather than going to a full hearing exists, and provision is made for appeals of decisions rendered by the Judicial Board. All sanctions are imposed either by the Student Development Coordinator, through a pre-hearing settlement, or by the Judicial Board after it has conducted a full hearing.

- Sanctions imposed will, as closely as possible; reflect the logical consequences of the student's misbehavior. Although punitive measures may be taken, efforts will also be made to provide for sanctions which will be educative and developmental in nature.
- Students who are subject to charges placed through the RCMP may also be subject to a hearing under the University's judicial system. As well, the University reserves the right to impose sanctions.
- This statement of judicial policies and procedures does not limit the freedom of the University to press criminal charges in cases where this is deemed to be the most appropriate course of action.
- The University reserves the right to refuse application for residence accommodation, to cancel residence privileges during the year, and to reassign students to other rooms for reasons it deems appropriate.
- Not all matters have been delegated to the judicial system. Unless specifically referred to in this policy statement, matters or issues are not covered by such systems. However, the Board of Governors and the Senior Director Student Affairs have the authority to deal with any matter in a manner that is outside the limits and procedures of the student judicial system when they deem it appropriate or necessary to do so.

Judicial policies are described in considerable detail in the ASU student handbook. Material on student discipline found in the university's calendar, the ASU handbook and other University Department handbooks all constitute part of the formal contract between the University and the student. The official university judicial policy document is found on the university website under Student Life. A copy of this document can also be obtained from the Campus Programs Department. For more information, call (902) 585-1308.

## PART VI: FACULTIES

Acadia offers programs of study leading to the following credentials:

| BA | Bachelor of Arts |
| :--- | :--- |
| BAH | Bachelor of Arts with Honours |
| BAM | Bachelor of Arts in Music |
| BAMH | Bachelor of Arts in Music with Honours |
| BASC | Bachelor of Applied Science |
| BBA | Bachelor of Business Administration |
| BBAH | Bachelor of Business Administration with Honours |
| BCD | Bachelor of Community Development |
| BCDH | Bachelor of Community Development with Honours |
| BCDH ESST | Bachelor of Community Development with Honours with <br> Environmental \& Sustainability Studies |
| BCD ESST |  <br> Sustainability Studies |
| BCS | Bachelor of Computer Science |
| BCSH | Bachelor of Computer Science with Honours |
| BCSS | Bachelor of Computer Science with Specialization |
| BED | Bachelor of Education |
| BKIN | Bachelor of Kinesiology |
| BKIH | Bachelor of Kinesiology with Honours |
| BM | Bachelor of Music |
| BMT | Bachelor of Music Therapy |
| BSC | Bachelor of Science |
| BSCH | Bachelor of Science with Honours |
| BSN | Bachelor of Science in Nutrition |
| BSNH | Bachelor of Science in Nutrition with Honours |
| BTH | Bachelor of Theology |
| CAS | Certificate in Applied Science |
| CCS | Certificate in Computer Science |
| CMT | Certificate in Music Therapy |
| DMI | Doctor of Ministry |
| MA | Master of Arts |
| MAT | Master of Arts in Theology |
| MDI | Master of Divinity |
| MED | Master of Education |
| MR | Master of Recreation Management |
| MSC | Master of Science |
| MTH | Master of Theology |
| PHD | Doctor of Educational Studies |
|  |  |

## Undergraduate Programs

## Faculty of Arts

Office of the Dean of Arts
Beveridge Arts Centre, Room 224/225
http://arts.acadiau.ca/

## Dean (Interim)

Dr. Jeffrey J. Hennessy

## Heads And Directors

Economics
English and Theatre
History and Classics
Languages and Literatures
Music
Philosophy
Politics
Sociology

Dr. Burc Kayahan
Dr. Jessica Slights
Dr. Gillian Poulter
Dr. Anne Quéma
Dr. Christianne Rushton
Dr. Ian Wilks
Dr. Geoffrey Whitehall
Dr. Zelda Abrdamson

Dr. Stephen Henderson
Dr. Glyn Bissix
Dr. Anne Quéma

## Faculty of Arts Credentials

BA Bachelor of Arts with Major
BAH Bachelor of Arts with Honours
BAM Bachelor of Arts in Music
BM Bachelor of Music
BMT Bachelor of Music Therapy
CMT Certificate in Music Therapy
MA Master of Arts

## Bachelor Of Arts Degree Requirements

## The Arts Core

All Students in a Bachelor of Arts program are required to complete 30 credit hours as follows:

1. 6 h in English at the 1000-level.
2. 6 h in a single language other than English Students whose first language is not English or who can demonstrate a high level of competence in a language other than English may substitute a second 6h in English
3. 6 h in Economics, Politics, Sociology or Women's and Gender Studies.
4. 6 h in Art (not 2013, 2023, 3013, 3023), Classics, Comparative Religion, History, Philosophy, Music (not applied, vocal or instrumental methods, or practical studies) or Women's and Gender Studies.
5. $6 h$ in the Faculty of Pure and Applied Science

- No more than 6h in WGST can be counted toward the Arts Core.


## Bachelor of Arts with Honours

All Bachelor of Arts with Honours degrees require the completion of a minimum of 120 h as follows:

1. The Arts Core (3oh)
2. A minimum of 48 h in one Arts subject, Mathematics, or Psychology, including at departmental option a thesis, to satisfy honours major requirements. (Departments may require more than 48 h ).
3. A minimum of 24 h to satisfy minor requirements in a single subject or in multidisciplinary studies. Only 6 h at the 1000 -level may be offered towards minor requirements in one subject.
4. Electives to complete a total of 120 .
5. 96 h must be taken in the Faculties of Arts and Pure and Applied Science

- Each course offered towards the major must be completed with a grade of Bor better.
- Either the major or the minor must be in an arts subject.
- In exceptional cases students may be permitted by the Dean of Arts to offer Honours in other science subjects.
- A program GPA of 3.0 is required in order to declare Honours
- A program GPA of 3.0 is required in order to be eligible to graduate.


## Bachelor of Arts with Honours - Double Major

All Bachelor of Arts with Honours - Double Major degrees require the completion of a minimum of 120 h as follows:

1. The Arts Core (3oh)
2. A minimum of 48 h in one Arts subject, Mathematics, or Psychology, including at departmental option a thesis, to satisfy honours major requirements.
(Departments may require more than 48 h ).
3. A minimum of 36 h in one subject to satisfy second major requirements.
(Departments may require more than 36 h).
4. Elective courses to complete a total of 120 h .

- Except where the second major is taken in the Faculty of Professional Studies, 96h must be taken in the Faculties of Arts and Pure and Applied Science.
- Any subject may be offered as the second major.
- Courses offered towards the first major must be completed with a grade of B- or better. At least one of the majors must be in an Arts subject.
- In exceptional cases students may be permitted by the Dean of Arts to offer Honours in other science subjects.
- A program GPA of 3.0 is required in order to declare honours.
- A program GPA of 3.0 is required in order to be eligible to graduate


## Bachelor of Arts with Major

All Bachelor of Arts with Major degrees require the completion of a minimum of 120 h as follows:

1. The Arts Core (3oh)
2. A minimum of 42 h in one arts subject, Mathematics or Psychology, to satisfy major requirements. (Departments may require more than 42 h )
3. A minimum of 24 h to satisfy minor requirements in a single subject or in multidisciplinary studies. Only 6h at the 1000-level may be offered towards minor requirements in one subject
4. Elective courses to complete a total of 120 h
5. 96 h must be taken in the faculties of Arts and Pure and Applied Science.

- 84 h , including those offered to satisfy the major and minor requirements, must be completed with a C- or better.
- Either the Major or the Minor must be in an Arts subject. In exceptional cases, students may be permitted by the Dean of arts to offer a major in other science subjects.
- A program GPA of 2.0 is required in order to be eligible to graduate.


## Bachelor of Arts - Double Major

All Bachelor of Arts with Major degrees require the completion of a minimum of 120 h as follows:

1. The Arts Core (3oh)
2. A minimum of 42 h in one arts subject, Mathematics, or Psychology, to satisfy first major requirements. (Departments may require more than 42h)
3. A minimum of 36 h in one subject to satisfy second major requirements. (Departments may require more than 36 h ).
4. Elective courses to complete a total of $120 h$.
5. Except where the second major is taken in the Faculty of Professional Studies, 96h must be taken in the Faculties of Arts and Pure and Applied Science.

- Any subject may be offered for the second major. The second Major may be from any one of the three Faculties.
- Courses offered to satisfy each of the major requirements must be completed with a C- or better. In any case at least 84 h must be completed with a C- or better.
- A program GPA of 2.0 is required in order to be eligible to graduate


## Minors

All BA students are required to complete a minor of 24 h in a single subject or multidisciplinary area except Music and Theatre majors. Multidisciplinary minors offer an alternative to completing the minor requirements for a B.A. in a single discipline.
Students interested in studying a topic from a variety of disciplinary perspectives should consult the list of Multidisciplinary Minors available through the Faculty of Arts. These include American Studies, Atlantic Canadian Studies, Canadian Studies, Comparative Religion, Cultural Studies, Diaspora Studies, International Development Studies, Environmental and Sustainability Studies, Ethnocultural Diversity Studies, Legal Studies, Material and Visual Culture, Women's and Gender Studies, and World Literatures. Full details and course lists may be found on the Faculty of Arts website:
http://arts.acadiau.ca/.

## Bachelor of Arts Applied Option

Students may complete the Applied Option as described in the degree requirements of the Psychology section of this calendar.

## Co-operative Education in the Arts

Co-op students are required to complete COOP 1900, 2900, 3903 (or COOP 3703 or COOP 3803) to complete the Co-op Option. Co-op students have the option of completing COOP 4900 with their degree.

Co-op is available to Arts students majoring in Economics, English, Environmental and Sustainability Studies (pending approval from MPHEC), French, History, German, Mathematics and Statistics, Politics, Psychology, Sociology, Spanish, and Women's and Gender Studies. Visit http://co-op.acadiau.ca/for more information.

## Faculty of Professional Studies

Office of the Dean of Professional Studies
Godfrey House
http://professionalstudies.acadiau.ca/

## Dean

Dr. Heather Hemming

## Heads And Directors

Department of Community Development Fred C. Manning School of Business (Acting)
School of Kinesiology (Acting)
School of Education

Dr. Glyn Bissix<br>Professor Paul Callaghan<br>Dr. Scott Landry<br>Dr. Ann Vibert

Faculty of Professional Studies Programs
BBA Bachelor of Business Administration
BBAH Bachelor of Business Administration with Honours
BBA with Major Bachelor of Business Administration with Major
BCD Bachelor of Community Development
BCD ESST Bachelor of Community Development with Environmental and Sustainability Studies
BCDH Bachelor of Community Development with Honours
BCDH ESST Bachelor of Community Development with Honours with Environmental and Sustainability Studies
BED Bachelor of Education
BKIN Bachelor of Kinesiology
BKIH Bachelor of Kinesiology with Honours
MED Master of Education
MR Master of Recreation Management
Ph.D. Doctor of Educational Studies
Degree requirements for each of the above programs are outlined in detail in the sections that follow.

## Co-operative Education in Professional Studies

Co-op students are required to complete COOP 1900, 2900, 3903 (or COOP 3703 or COOP 3803) to complete the Co-op Option. Co-op students have the option of completing COOP 4900 with their degree.

The Co-op Option is available to Business Administration students. Areas of concentration include: Accounting, Business Technology Management, Employment Relations, Entrepreneurship and Innovation, Finance and Marketing. The Co-op Option is also available to Community Development students with or without Environmental and Sustainability Studies (pending approval from MPHEC).

Visit http://co-op.acadiau.ca for more information.

## Faculty of Pure and Applied Science

Office of the Dean of Pure and Applied Science
Huggins Science Hall, Room 304
http://science.acadiau.ca/

Acting Dean<br>Dr. Jeff Hooper

## Heads And Directors

Biology<br>Chemistry<br>Computer Science<br>Engineering<br>Earth and Environmental Science<br>Mathematics and Statistics<br>Nutrition and Dietetics<br>Physics<br>Psychology

Dr. Brian Wilson
Dr. Matthew Lukeman
Dr. Danny Silver (Acting Director)
Dr. Andrew Mitchell
Dr. Ian Spooner
Dr. Jeff Hooper
Dr. Catherine Morley (Acting Director)
Dr. Craig Bennett
Dr. Darlene Brodeur (Acting Head)
Science Programs Offered
BASC Bachelor of Applied Science
BCS Bachelor of Computer Science
BCSH Bachelor of Computer Science with Honours
BCSS Bachelor of Computer Science with Specialization
BSC Bachelor of Science
BSCH Bachelor of Science with Honours
BSN Bachelor of Science in Nutrition
BSNH Bachelor of Science in Nutrition with Honours
CAS Certificate in Applied Science
CCS Certificate in Computer Science
MSC Master of Science

## Bachelor of Science Degree Requirements

## Bachelor of Science with Honours

All Bachelor of Science with Honours degrees require the completion of a minimum of 120h as follows:

1. 6h selected from English, Art at the 1000-level, Classics, Comparative Religion, a single language other than English, History, Music (not applied, vocal or instrumental methods, or practical studies) Philosophy, Theology (THEO 3013/THEO 3023, BIBL 2013/BIBL 2023, GREE 3013/GREE 3023), or Women's and Gender Studies
2. 6 h from the Faculty of Arts (not ECON 2613/ECON 2623 or SOCI 3103) or IDST 3203
3. 6 from either the Faculty of Arts (not ECON 2613/ECON 2623 or SOCI 3103) or from the Faculty of Professional Studies or 3 h from each.
4. 6h in Mathematics and Statistics
5. A minimum of 72 h additional Science subjects, including those offered to satisfy Major requirements, chosen from the departments of Biology, Chemistry, Earth and Environmental Science, Mathematics and Statistics, Physics, Psychology or the School of Computer Science.
6. 12 h in another subject to satisfy the Minor requirement completed with a minimum grade of C-
7. A minimum of 24 h electives
8. A Major consists of at least 48 h in one subject area, completed with a grade of Bor greater; at departmental option 6 h of this may be a thesis. (The departments of biology, chemistry, earth and environmental science, and psychology and the school of computer science require a thesis).
9. 120 h are required in all. At least 42 h hours must not be in the Major subject.
10. A minimum of 120 h must be completed with a program GPA of 3.0 or better.

## Bachelor of Science with Honours and Second Major

All Bachelor of Science with Honours degrees require the completion of a minimum of 120h as follows:

1. 6h selected from English, Art at the 1000-level, Classics, Comparative Religion, a single language other than English, History, Music (not applied, vocal or instrumental methods, or practical studies) Philosophy, Theology (THEO 3013/THEO 3023, BIBL 2013/BIBL 2023, GREE 3013/GREE 3023), or Women's and Gender Studies (6h)
2. 3 h from the Faculty of Arts (not ECON 2613, ECON 2623, SOCI 3103)
3. 3 h from the Faculty of Arts (not ECON 2613, ECON 2623, SOCI 3103) or IDST 3203
4. 6 h from either the Faculty of Arts (not ECON 2613/ECON2623 or SOCI 3103) or the Faculty of Professional Studies or 3 h from each
5. 6 h in Mathematics and Statistics
6. A minimum of 48 h in one science subject completed with a grade of B - or greater, including at departmental option a thesis, to satisfy honours Major requirements.
7. A minimum of $30 h$ completed with a grade of C - or greater in one subject chosen in consultation with the department offering the first Major to satisfy second Major requirements. Some departments require more than 30 h for a second Major.
8. 78 h in science subjects including those offered to satisfy Major requirements. If the second Major is in a non-science subject, courses taken in this Major will count as though they were science courses.
9. 120 h are required in all.
10. A minimum of 120 h must be completed with a program GPA of 3.0 or better.

## Bachelor of Science with Major

All Bachelor of Science with Major degrees require the completion of a minimum of 120 h as follows:

1. 6h selected from English, Art at the 1000-level, Classics, Comparative Religion, a single language other than English, History, Music (not applied, vocal or instrumental methods, or practical studies) Philosophy, Theology (THEO 3013/THEO 3023, BIBL 2013/BIBL 2023, GREE 3013/GREE 3023), or Women's and Gender Studies (6h)
2. 6 h from the Faculty of Arts (not ECON 2613, ECON 2623, SOCI 3103)
3. 6 from either the Faculty of Arts (not ECON 2613, ECON 2623 or SOCI 3103) or the Faculty of Professional Studies or 3 h from each.
4. 6 h in Mathematics and Statistics
5. 72h additional in subjects in the Faculty of Pure and Applied Science
6. A Major is a minimum of 48 h with a Minor of 12 h in another subject; or of 45 h with a Minor of 15 h in another subject, or of 42 h with a Minor of 18 h in another subject, or of 36 h with two Minors of 18 h each in two different subjects. Mathematics and Statistics Majors may have Minors in any subject area but must include at least 6h at the 2000-level]
7. 24 h additional elective hours
8. 12 oh are required in all. Of these at least 48 h must not be in the Major subject. 72 h , including those offered to fulfill Major and Minor requirements must be completed with a grade of C - or better.
9. A minimum program GPA of 2 is required to be eligible to graduate.

The Bachelor of Science (Major) is offered in the departments of Biology, Chemistry, Earth and Environmental Science, Mathematics and Statistics, Physics, and Psychology.

## Bachelor of Science with Double Major

All Bachelor of Science with Double major degrees require the completion of a minimum of 120 h as follows:

1. 6h selected from English, Art at the 1000-level, Classics, Comparative Religion, a single language other than English, History, Music (not applied, vocal or instrumental methods, or practical studies) Philosophy, Theology (THEO 3013/THEO 3023, BIBL 2013/BIBL 2023, GREE 3013/GREE 3023), or Women's and Gender Studies
2. 6 h from the Faculty of Arts (not ECON 2613, 2623, SOCI 3103)
3. $6 h$ from either the Faculty of Arts (not ECON 2613/ECON 2623 or SOCI 3103) or the Faculty of Professional Studies or 3 h from each.
4. 6 h in Mathematics and Statistics
5. 72h additional in science subjects including those offered to satisfy Major requirements. The first Major is a minimum of 36 h in one science subject. The second Major is a minimum of 30 h in another subject chosen in consultation with the department offering the first Major. Some departments require more than 30 h for a second Major. If the second Major is in a non-science subject, courses taken in this Major will count as though they were science courses.
6. 24 h additional chosen in consultation with the departments in which the first and second Majors are taken
7. 120 h are required in all. 72 h including each offered to fulfill double Major requirements must be completed with a grade of C - or better.
8. A minimum program GPA of 2 is required to be eligible to graduate.

The department that offers the first Major is the student's advisor and administers the student's program. The second Major may be from any one of the three faculties.

## Bachelor of Science - Foundation Option (42/18/18/18 Major)

All Bachelor of Science Foundation Option degrees require the completion of a minimum of 120 h as follows:

1. 6h selected from English, Art at the 1000-level, Classics, Comparative Religion, a single language other than English, History, Music (not applied, vocal or instrumental methods, or practical studies) Philosophy, Theology (THEO 3013/THEO 3023, BIBL 2013/BIBL 3023, GREE 3013/GREE 3023), or Women's and Gender Studies (6h)
2. 6 h Social Studies that relate to Canadian Studies, History, Geography, Economics, Political Science or Philosophy
3. 6 from either the Faculty of Arts (not ECON 2613/ECON 2623 or SOCI 3103) or the Faculty of Professional Studies or 3 h from each
4. 18 h in each of biology, chemistry, mathematics and statistics, and physics to be chosen in consultation with the department
5. 24h additional in one of biology, chemistry, mathematics and statistics, or physics selected to fulfill the Major requirements
6. 6 h elective
7. 120 h are required in all. Courses offered to fulfill Major and Minor requirements must be completed with a grade of C- or better
8. A minimum program GPA of 2.0 is required to graduate

## Minors <br> All BSc students are required to complete a minor as part of their degree. Minors in the faculty of Pure and Applied Science range from 12-24 credits. Students are encouraged to plan their minors with the advice of an Academic Advisor. <br> Multidisciplinary Minors: In place of a minor in a single subject, B.Sc. students may complete an 18 h multidisciplinary minor, subject to specific program requirements.

Students interested in this option should discuss it with their academic advisor. Multidisciplinary minors include American Studies, Atlantic Canadian Studies, Canadian Studies, Comparative Religion, Cultural Studies, Diaspora Studies, International Development Studies, Environmental Studies, Legal Studies, Women's and Gender Studies, and World Literatures. Full details and course lists may be found on the Faculty of Science website.

## Actuarial Science Option

Students may complete the Actuarial Science Option as descripted in the degree requirements in the Mathematics and Statistics section of this calendar.

## Biochemistry Option

Students may complete the Biochemistry option in conjunction with the Bachelor of Science with Honours, Major, or Double Major.

Option courses:

1. BIOL 1113 and BIOL 1123
2. CHEM 1013 and CHEM 1023 or CHEM 1113 and CHEM 1123
3. MATH 1013 and MATH 1023 or MATH 2223 and MATH 2243
4. BIOL 2013 and BIOL 2023
5. CHEM 2513 and CHEM 2713
6. 18 h from the following list (minimum 6 h must be from Biology and a minimum 6h must be from Chemistry): CHEM 2533, CHEM 3513, CHEM 3523, CHEM 3723, CHEM 4513, CHEM 4523, CHEM 4723, BIOL 3063, BIOL 3153, BIOL 3163, BIOL 3553, BIOL 3613, BIOL 3633, BIOL 3883, BIOL 3553, BIOL 4613; NUTR 4523

## Data Science Option

Students may complete the Data Sciences option in conjunction with the Bachelor of Science and Bachelor of Science with Honours.

Option courses:

1. 6 from MATH 1313, 1323, 1333, 1413, or 6h from MATH 2213, 2223, 2233, 2243
2. COMP 1113, 1123, 2113

And one of
3a. MATH 3233, MATH 3293, plus 6h from MATH 3283, MATH 3603, MATH 3633, MATH 4223, MATH 4233
3b. COMP 3503, plus 9h from COMP 2853, COMP 3753, COMP 3923, one of which may be substituted for another related course with permission of the School).
3c. MATH 3233, COMP 3503, 3 h from MATH 3283, MATH 3603, MATH 3633, MATH 4223, MATH 4233, and 3h from CDOMP 2853, COMP 3573, COMP 3923

## Health Sciences Option

Students may complete the Health Sciences option in conjunction with the Bachelor of Science with Major, the Bachelor of Science with Honours, the Bachelor of Science in Nutrition (without dietetic option), the Bachelor of Science in Nutrition with Honours (without dietetic option), the Bachelor of Kinesiology or the Bachelor of Kinesiology with Honours.

Option courses:

1. BIOL 1113 and BIOL 1123 or BIOL 1813 and BIOL 1823 or BIOL 1853 and BIOL 1863 or BIOL 2813 and BIOL 2823;
2. CHEM 1013 and CHEM 1023 or CHEM 1113 and CHEM 1123;
3. MATH 1013 and MATH 1023, or MATH 1213 and MATH 1223, or MATH 2233 and MATH 2243,
4. PHYS 1013 and PHYS 1023 or PHYS 1053 and PHYS 1063;
5. PSYC 1013 and PSYC 1023
6. SOCI 1033
7. 12h from: CHEM 2513, CHEM 2713 or CHEM 2773, COMP 1813, CREL 2443, HIST 2613, KINE 1413, KINE 2033, KINE 2413, KINE 2423, KINE 3013, NUTR 1313, NUTR 1323, NUTR 3513, NUTR 3523, NUTR 3723, PHIL 1413, PHIL 2713, PSYC 2113, PSYC 2123, PSYC 2133, PSYC 2153, SOCI 2343, SOCI 2633, SOCI 3633, SOCI 3733, WGST 1413.

Students interested in a career in Health Science are encouraged to consult with the Health Sciences Advisor (healthscienceadvisor@acadiau.ca) in planning their degrees.

## Bachelor of Arts Applied Option

Students may complete the Applied Option as described in the degree requirements of the Psychology section of this calendar.

## Neuroscience Option

Students may complete the Neuroscience Option as described in the degree requirements of the Psychology section of this calendar.

## Co-operative Education in Science

Co-op students are required to complete COOP 1900, 2900, 3903 (or COOP 3703 or COOP 3803) to complete the Co-op Option. Co-op students have the option of completing COOP 4900 with their degree.

The Co-op Option is available to Science students majoring in Biology, Chemistry, Computer Science, Environmental Science, Environmental Geoscience, Geology, Mathematics and Statistics, Nutrition, Physics, and Psychology.

Visit http://co-op.acadiau.ca/ for more information.

## Faculty of Theology

Acadia Divinity College
Main Office: (902) 585-2210; Toll-Free: 1 (866) 875-8975
Registrar: (902) 585-2216; Student Services: (902) 585-2215
http://www.acadiadiv.ca

## President

Dr. Harry G. Gardner

## Academic Dean

Dr. Anna M. Robbins
Faculty of Theology Programs
BTH Bachelor of Theology
MAT Master of Arts (Theology)
MDI Master of Divinity
MTH Master of Theology
DMI Doctor of Ministry
All inquiries about programs offered should be directed to Acadia Divinity College, from whom a separate academic calendar is available.

## Research and Graduate Studies

Office of the Dean of Graduate Studies
Horton Hall, Room 214
Ph: (902) 585-1914; Fax: (902) 585-1096
http://gradstudies.acadiau.ca
Graduate Studies at Acadia are administered through the Division of Research and
Graduate Studies. The Dean of Research and Graduate Studies is the chief administrative officer.

## Dean of Research and Graduate Studies

Dr. David MacKinnon

## Administration

Graduate Studies Officer Theresa Starratt
Research Office Administrator
Director, Office of Industry \& Community Engagement
Research and Innovative Coordinator
Barb Baker
Leigh Huestis
Peggy Crawford

## Graduate Program Coordinators

Applied Geomatics
Biology
Chemistry
Computer Science
Education
Dr. Ian Spooner
Dr. Mark Mallory
Dr. Sherri McFarland
Dr. Andre Trudel
English
Geology
Mathematics and Statistics
Political Science
Psychology
Recreation Management
Social and Political Thought
Sociology
Dr. Gregory MacKinnon
Dr. Lisa Narbeshuber
Dr. Sandra Barr
Dr. Wilson Lu
Dr. Rachel Brickner
Dr. Susan Potter
Dr. John Colton
Dr. Geoffrey Whitehall
Dr. James Brittain

Graduate Programs Offered

| Master of Arts (MA) | English |
| :---: | :---: |
|  | Political Science |
|  | Social and Political Thought |
|  | Sociology |
| Master of Science (MSc) | Applied Geomatics |
|  | Biology |
|  | Chemistry |
|  | Computer Science |
|  | Geology |
|  | Mathematics and Statistics |
|  | Psychology |
| Master of Education | Curriculum Studies |
|  | Counselling |
|  | Inclusive Education |
|  | Leadership |
| Master of Recreation Management (MR) |  |
| Doctor of Educational Studies (PhD) |  |

For information on the graduate programs offered by the Acadia Divinity College please consult the Principal, Acadia Divinity College, Acadia University, Wolfville, NS, Canada, B4P 2R6.

## Research At Acadia

On the basis of historical successes, existing research strengths, and a strong commitment to a sustainable future, Acadia's 2015-2020 Strategic Research Plan has an overarching focus - Rural and Coastal - incorporating four theme areas: Community Life, Organizations, and Cultural Diversity; Natural Resources and Environmental Resilience; Human Health and Wellness; and Innovative and Enabling Technologies. Prospective students should be aware that the strategic focus and theme areas are not exclusive. Applications from those interested in a broad array of research interests and disciplines are welcome.

## Community Life, Organizations, and Cultural Diversity

Understanding community and organizational life, historically and currently, homogenous and culturally diverse, is the work of a number of researchers and research programs at Acadia. Connected to community life is a critical mass of faculty and student researchers engaged in scholarship on cultural diversity and social justice.

## Natural Resources and Environmental Resilience

Acadia has a well-established strength and reputation for research related to natural resources and the environment. This is especially prominent in terms of our integrated research into ecological systems, the interaction of organisms with the environment, and the environmental implications and impacts of human activities.

## Human Health and Wellness

Health includes physical, psychological, spiritual, and occupational health, and its social determinants. Wellness speaks not only to good health, but also to quality of life and contentment with one's overall life circumstances. The multiple prongs of health-related research at Acadia cluster around foods, as well as physical, social, and psychological/emotional health and wellness.

## Innovative and Enabling Technologies

Innovative and enabling technologies include research on the theoretical and scientific foundations of many technologies. Coupled with this is research into the pedagogical and methodological applications of technologies, and the utilization of technology in support of faculty and student research programs at Acadia.

## Research Centres

Major research centres on campus include:
Acadia Centre for Estuarine Research (ACER)
Acadia Digital Culture Observatory (ADCO)
Acadia Centre for Microstructural Analysis (ACMA)
Acadia Centre for Mathematical Modeling \& Computation (ACMMaC)
Centre for Organizational Research and Development (COR\&D)
Centre for Analytical Research on the Environment (CARE)
Centre for Sensory Research of Food (CSRF)
Centre for the Study of Ethnocultural Diversity (CSED)
Centre of Lifestyle Studies (COLS)
Northeast Asia Research Centre (NEARC)

## PART VII: PROGRAMS OF STUDY

## Undergraduate

This section provides descriptions of all Undergraduate programs at Acadia, ordered alphabetically, including those that are interdisciplinary and multidisciplinary. The graduate program description follows this section.

## Art

Office of the Dean of Arts; Beveridge Arts Centre, Room 224
http://arts.acadiau.ca/
Program(s) Offered: Minor

## Minor in Art

The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a minor are required to complete a minimum of 12 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

## Cross-Listed Courses

The following courses can be counted towards the Minor in Art: CLAS 2013, CLAS 2023, IDST 2813, IDST 2823, PHIL 2103

## American Studies

Office of the Dean of Arts; Beveridge Arts Centre, Room 224
Coordinator: Dr. Lisa Narbeshuber (lisa.narbeshuber@acadiau.ca)
Program(s) Offered: Minor

## Minor in American Studies

Multidisciplinary minors offer an alternative to completing the minor requirements for a program in a single discipline. The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a multidisciplinary minor are required to complete a minimum of 18 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

A minor in American studies requires the completion of HIST 2303 and HIST 2313 as well as the requisite number of credit hours for your program from the list of courses below. No more than 12 h can be in a single discipline. All courses offered towards this minor must be completed with a grade of C- or better.

## Cross-Listed Courses

The following courses may be counted towards credit in the American Studies Minor: ART 2313, CREL 2533, ENGL 2683, ENGL 2693, ENGL 3553, ENGL 3563, ENGL 4233, ENGL 4313, ENGL 4323, HIST 2303, HIST 2313, HIST 2513, HIST 3323, IST 3433, HIST 3493, IST 3513, HIST 3553, HIST 3653, HIST 4323, POLS 3493

## Applied Science

Ivan Curry School of Engineering; Carnegie Building, Room 216
Ph: (902) 585-1206; Fax: (902) 585-1067; http://engineering.acadiau.ca/
Programs Offered: Bachelor of Applied Science (BASc), Certificate in Applied Science (CAS)

## The Bachelor of Engineering Degree

The Bachelor of Engineering degree requires a minimum of four years to complete and is delivered through a cooperative arrangement with Dalhousie University. The joint fouryear BEng degree programs offered through this arrangement is fully accredited by the Canadian Council of Professional Engineers and is completed in two parts. A student normally spends, as a minimum, two years at Acadia before transferring to Dalhousie to complete the program. Upon completion of the Acadia portion of the program, the student is awarded our Certificate in Applied Science (CAS), which guarantees admission to Dalhousie with full transfer of credit to complete their programs. Students may elect to attend engineering schools other than Dalhousie after completing the Certificate. In such cases, admission is individually considered.

The Bachelor of Applied Science degree (BASc) awarded by Acadia is not an accredited engineering degree, but offers students a very liberal framework through which to pursue studies in the Applied Sciences and Engineering. Our BASc students often complete the CAS for a particular engineering discipline as a subset of the courses needed for the degree, thereby keeping their options open for after graduation. The extra year of study at Acadia can be used to further develop studies in a particular area of interest or gain exposure to a broad spectrum of elective topics. The BASc degree requires three years of study and may be completed entirely on the Acadia campus.

The first year of study in either program is common for all disciplines at Acadia. Students in certificate programs are generally expected to select one of the following engineering disciplines as they enter their second year of study: Civil, Mechanical, Industrial, Mining, Materials, Environmental, Electrical, Computer, and Chemical engineering.

Students pursuing combined BASc/CAS programs may delay discipline choice until the third year of study. Combined BASc/CAS students also have the option of deferring one first year course until the second year of study if they wish. The CAS can also be completed as part of a BSc degree at Acadia with various major areas of study. Students interested in this option are urged to contact both the School and the Science department involved to arrange an appropriate program of studies.

## Bachelor of Applied Science

## Graduation Requirements

In addition to the program requirements outlined below, a minimum program GPA of 2.0 is required to graduate with the BASc

## Program Requirements

Students must complete a minimum of goh as follows:

1. 33h Applied Science
2. 18h Mathematics in consultation with the School of Engineering and the Department of Mathematics and Statistics
3. 18 h from the Faculty of Pure and Applied Science in topics other than Mathematics or Applied Science, with 6h at the 2000-level or better
4. 15h outside of the Faculty of Pure and Applied Science.
5. 6 h from Business, Economics or the Faculty of Pure and Applied Science.

## Certificate in Applied Science

## Graduation Requirements

In addition to the program requirements outlined below, a minimum program GPA of 2.0 is required to graduate with the CAS.

## Program Requirements

Students must complete a minimum of 69h as follows:

1. All of the following (54h): APSC 1073, APSC 1113, APSC 1223, APSC 1413, APSC 2213, APSC 2113, APSC 2413, APSC 2683, MATH 1013, MATH 1023, MATH 1323, MATH 2213, MATH 2723, MATH 2753, PHYS 1013, PHYS 1023, CHEM 1013, CHEM 1023
2. 6h Humanities or Social Science. Courses transferred for credit from high school (e.g. AP and IB courses) and courses offered through distance learning may not be used to fulfill this requirement.
3. 9 h at the direction of the School

Please note: Courses for 2 and 3 above should be selected to meet requirements of the Canadian Engineering Accreditation Board and the chosen engineering discipline. They are normally completed in the second or subsequent year of the program. Students are advised to consult with the School of Engineering when making their course selection.

## Atlantic Canadian Studies

Office of the Dean of Arts; Beveridge Arts Centre, Room 224
Coordinator: Dr. Stephen Henderson (stephen.henderson@acadiau.ca)
Program Offered: Minor

## Minor in Atlantic Canadian Studies

Multidisciplinary minors offer an alternative to completing the minor requirements for a program in a single discipline. The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a multidisciplinary minor are required to complete a minimum of 18 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

A minor in Atlantic Canadian Studies requires the completion HIST 2343 and HIST 2353 as well as the requisite number of credit hours from the list of courses below. No more than 12 h presented for the minor can be in a single discipline. All courses offered towards this minor must be completed with a grade of C - or better.

## Cross-Listed Courses

The following courses may be counted towards credit in the Atlantic Canadian Studies Minor: ENGL 3503, ENGL 3513, ENGL 4253, FRAN 3513, FRAN 3523, HIST 2343, HIST 2353, HIST 2603, HIST 2733, HIST 3363, HIST 3373, IDST 1213, IDST 1223, IDST 3213, POLS 4203, SOCI 2353,
SOCI 3433

## Biology

Department of Biology; Biology Building, Room 302
Ph. (902) 585-1334; Fax: (902) 585-1059; http://biology.acadiau.ca/
Programs Offered: Bachelor of Science with Honours (BSc), Bachelor of Science (BSc), Minor

## Biology Core

All Biology programs require students to complete all of the following courses (18h): BIOL 1113, BIOL 1123, BIOL 2013, BIOL 2043, BIOL 2053, BIOL 2073

## Biodiversity Stream

BIOL 3013, BIOL 3073, BIOL 3113, BIOL 3123, BIOL 3243, BIOL 3293, BIOL 3373, BIOL
3843, BIOL 4113, BIOL 4123, BIOL 4153, BIOL 4163, BIOL 4213, BIOL 4543

## Honours in Biology

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science with Honours requirements as outlined in the previous section of this calendar. In addition, all students will take an oral comprehensive examination and defend a thesis (BIOL 4996) during the fourth year of study.

## Program Requirements

Students must complete a minimum of 57 credit hours in the Honours program as follows:

1. The Biology Core (18h), completed with a minimum grade of B- in all courses
2. BIOL 4023 and 4996 , each completed with a minimum grade of B-
3. 21h additional Biology courses at the 3000-4000 level (must include at least 3 h from the biodiversity stream), each completed with a minimum grade of B-
4. MATH 2233 and MATH 2243, each completed with a minimum grade of C-
5. CHEM 1013 and CHEM 1023, each completed with a minimum grade of C-

## Major in Biology

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science with Major requirements as outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 54-60 credit hours in the Major as follows:

1. The Biology Core (18h), completed with a minimum grade of C-in all courses
2. An additional 30 h or 27 h or 24 h Biology depending upon the Minor (24h, 21h, or 18 h respectively of which are to be at the 3000-4000 level and include at least 3 h from the biodiversity stream), each completed with a minimum grade of C-
3. MATH 2233 and MATH 2243, each completed with a minimum grade of C-
4. CHEM 1013 and CHEM 1023, each completed with a minimum grade of C-

## Double Majors in Biology

Biology students who wish to complete a second major in Chemistry, Kinesiology, or Nutrition should consult the specific program requirements outlined below. All other students should use the general requirements that follow:

## Double Major: Biology as the First Major <br> Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science with Double Major requirements as outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 54 credit hours in the Major as follows:

1. The Biology Core (18h), completed with a minimum grade of C- in all courses
2. 24 h additional Biology at the 3000-4000 level (must include at least 3 h from the biodiversity stream), each completed with a minimum grade of C-
3. MATH 2233 and MATH 2243, each completed with a minimum grade of C-
4. CHEM 1013 and CHEM 1023, each completed with a minimum grade of C-

## Double Major: Biology as the Second Major <br> Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science with Double Major requirements as outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 30 credit hours in the Major as follows:

1. BIOL 1113, BIOL 1123, BIOL 2013, BIOL 2073, each completed with a minimum grade of C-
2. 3 h from: BIOL 2043 or BIOL 2053 (whichever course is taken must be completed with a minimum grade of C -)
3. 15 h additional Biology ( 12 h of which must be completed at the 3000-4000 level and include at least 3 h from the biodiversity stream)

## Double Major: Biology with Second Major in Chemistry Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science with Double Major requirements as outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 42 h in the Biology Major and 30 h in the Chemistry Major as follows:

1. The Biology Core (18h)
2. 24 h additional Biology at the 3000-4000 level (must include at least 3 h from the biodiversity stream)
3. MATH 2233 and MATH 2243, each completed with a minimum grade of C-
4. 30h of Chemistry chosen in consultation with the Chemistry Department

## Double Major: Biology with Second Major in Kinesiology Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science with Double Major requirements as outlined in the previous section of this calendar. In addition, all of the courses outlined in the program requirements below must be completed with a minimum grade of C -.

## Program Requirements

Students must complete a minimum of 54 credit hours in the Biology Major and 30h in the Kinesiology Major as follows:

1. The Biology Core (18h)
2. 24 h additional Biology ( 18 h of which must be at the $3000-4000$ level)
3. 6 h Chemistry
4. MATH 2233 and MATH 2243
5. 3oh Kinesiology chosen in consultation with the Kinesiology Program Director and the Biology Department (3oh)

## Double Major: Biology with Second Major in Nutrition

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science with Double Major requirements as outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 36 credit hours in the Biology Major and 3oh in the Nutrition Major as follows:

1. The Biology core
2. 18 h additional Biology ( 12 h of which must be at the 3000-4000 level).
3. 3oh Nutrition in consultation with the Director of the School of Nutrition and Dietetics.

## Minor in Biology

The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a minor in Biology are required to complete a minimum of 12 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

Biology students completing a Minor in the areas of Chemistry, Physics, or Geology must include at least 6 h in a course which has a laboratory component to that course.

## Cross-Listed Courses

The following courses may be counted towards credit in Biology: CHEM 2713, CHEM 3723, CHEM 4713, CHEM 4723, GEOL 2213, and a maximum of 6h from the following PSYC courses: PSYC 3053, PSYC 3083, PSYC 3133, PSYC 3323, PSYC 3383, PSYC 4343

## BUSINESS ADMINISTRATION

Fred C. Manning School of Business Administration; Rhodes Hall, Room 101 Ph: (902) 585-1140; Fax: (902) 585-1085; http://business.acadiau.ca/

Programs Offered: Bachelor of Business Administration (BBA), Bachelor of Business Administration with Honours (BBAH), Bachelor of Business Administration with Major. As detailed below it is possible to complete a BBA with Honours and Major.

## The Bachelor of Business Administration Program

The program of study leading to the degree of Bachelor of Business Administration is designed to provide a sound liberal education together with the study of business organization and management principles. A broad and substantial background is thus provided for the graduate entering industry, government service or further study.

A typical four-year program consists of:
Year 1: BUSI 1013, 1703, COMM 1213, MATH 1613 or MATH 1013, ECON 1013, ECON 1023, ECON 2613, 9h electives.

Year 2 (Core year): BUSI 2013, BUSI 2223, BUSI 2233, BUSI 2423, BUSI 2433, BUSI 2513, BUSI 2733, BUSI 2743, 2993, 3h electives. Most students will take their Core year courses in their second year. Normally, students must complete all first-year requirements before being enrolled in the Core-year program.
Year 3: BUSI 2803, BUSI 3063, BUSI 3613, 21h electives
Year 4: BUSI 4953, BUSI 4963, 24h electives

## The Bachelor of Business Administration with Honours

The objectives of the honours program in Business Administration are to develop outstanding and independent achievement, to enrich the educational program in breadth and depth beyond the normal program, and to encourage a student to work to maximum potential so as to increase his/her opportunities for graduate work and for challenging positions in business, industry, and civil service. Application for admission to the honours program should be made to the Director, usually at the end of the second year of study.

## Bachelor of Business Administration with Major

Within the School of Business, students have the option to complete a major in the functional disciplines of accounting, marketing, finance, employment relations, business technology management, and entrepreneurship and innovation. In addition, the school has agreements with other units of the university to permit a BBA with major in English, French, German, or Spanish. Admission to a major is normally done at the end of the first term of the second year; however, students are advised to plan their first year to ensure non-business courses within their degree requirements can be completed in the necessary sequence.

## Communication Skills

Every course offered by the school contains a component which exercises and tests communication skills (essays, business reports, oral presentations, etc.). Communications forms part of the grade in every course.

## Repeating Business Courses

Normally, all BUSI courses may be repeated only once. Appeals based on academic or compassionate grounds may be made to the director.
Please Note: Students wishing to transfer to business programs will normally have a CGPA of 2.5 and Grade 12 academic math or equivalent, although individual situations can be considered.

## Bachelor of Business Administration

## Graduation Requirements

Students must complete a minimum of 120 credit hours including the program requirements outlined below. In addition, a minimum program GPA of 2 is required for graduation.

## Program Requirements

1. All of the following courses (57h): BUSI 1013, BUSI 1703, BUSI 2803, BUSI 2013, BUSI 2223, BUSI 2233, BUSI 2423, BUSI 2433, BUSI 2513, BUSI 2733, BUSI 2743, BUSI 3063, BUSI 3613, BUSI 4953, BUSI 4963, COMM 1213, ECON 1013, ECON 1023, ECON 2613, each completed with a minimum grade of C-
2. 3 h from: MATH 1613 or MATH 1013 (whichever course is chosen must be completed with a minimum grade of C-)
3. 15 h business electives (for those in the second-year Core program, BUSI 2993 is required and business electives are reduced to 12 h )
4. 3oh non-business electives
5. 15h university electives (business or non-business)

## Bachelor of Business Administration with Honours <br> Graduation Requirements <br> Students must complete a minimum of 120 credit hours including the program requirements outlined below. In addition, a minimum program GPA of 3.0 or better is required for graduation.

## Program Requirements

1. All of the following (51h): BUSI 1013, BUSI 1703, BUSI 2803, BUSI 2013, BUSI 2223, BUSI 2233, BUSI 2423, BUSI 2433, BUSI 2513, BUSI 2733, BUSI 2743, BUSI 3063, BUSI 3483, BUSI 3613, BUSI 3993, BUSI 4953, BUSI 4963, COMM 1213 , each completed with a minimum grade of B-
2. 6h from: BUSI 4886 or BUSI 4996 (whichever course is chosen must be completed with a minimum grade of B-)
3. All of the following (12h): ECON 1013, ECON 1023, ECON 2613, each with a minimum grade of C-
4. 3 h from: MATH 1613 or MATH 1013 (whichever course is chosen must be completed with a minimum grade of C -)
5. 3 h of business electives.
6. 30 h non-business electives
7. 15 h university electives (business or non-business)

## Bachelor of Business Administration with Honours and Major Graduation Requirements <br> Students must complete a minimum of 120 credit hours including the program requirements outlined below (please note: most BBA Honours programs with Major require the completion of more than 120h). In addition, a minimum program GPA of 3.0 or better is required for graduation.

## Program Requirements

All students must complete the 72h as outlined in requirements 1-4 below, plus additional courses as listed with their chosen major.

1. All of the following (51h): BUSI 1013, BUSI 1703, BUSI 2803, BUSI 2013, BUSI 2223, BUSI 2233, BUSI 2423, BUSI 2433, BUSI 2513, BUSI 2733, BUSI 2743, BUSI 3063, BUSI 3483, BUSI 3613, BUSI 3993, BUSI 4953, BUSI 4963 (each completed with a minimum grade of B-
2. 6h from: BUSI 4886 or BUSI 4996 (whichever course is chosen must be completed with a minimum grade of B-)
3. All of the following (12h): COMM 1213, ECON 1013, ECON 1023, ECON 2613, each completed with a minimum grade of C-
4. 3 h from: MATH 1613 or MATH 1013 (whichever course is chosen must be completed with a minimum grade of C -)

## Major in Accounting

5. All of the following (9h): BUSI 2033, BUSI 3073, BUSI 3083 (each completed with a minimum grade of C -)
6. 15 h from: BUSI 3113, BUSI 3373, BUSI 3383, BUSI 3623, BUSI 4013, BUSI 4073, BUSI 4083, BUSI 4113 (or approved equivalents); (courses chosen must be completed with a minimum grade of C -)
7. 30h of non-business courses

## Major in Business Technology Management

5. All of the following (21h): BUSI 3723, BUSI 3853, BUSI 4663, COMP 1813, COMP 2863, COMP 3513, COMP 2853 (each completed with a minimum grade of C-)
6. 6 h from: BUSI 3293, BUSI 3773, BUSI 4553, BUSI 4653 (courses chosen must be completed with a minimum grade of C -)
7. 3h from COMP 1113, COMP 1893, COMP 2903, COMP 2923
8. 15 h of non-business courses
9. 3 h of university electives (business or non-business)

## Major in Employment Relations

5. All of the following (9h): BUSI 3313, BUSI 3323, BUSI 4313 (each completed with a minimum grade of C-)
6. 15 h from BUSI 3483, BUSI 3623, BUSI 3723, BUSI 3733, BUSI 3753, BUSI 3763, BUSI 4323, BUSI 4633, BUSI 4663, BUSI 4933, BUSI 4943, COMM 1223; (courses chosen must be completed with a minimum grade of C -)
7. 15 h from ECON, PSYC, SOCI, WGST or other non-business disciplines related to the field of Employment Relations as approved by the Director of the School of Business
8. 15 h of non-business courses

## Major in Entrepreneurship and Innovation

5. All of the following (9h): BUSI 3773, BUSI 4773, BUSI 4553 (each completed with a minimum grade of C-)
6. 12h from BUSI 2763, BUSI 3723, BUSI 3853, BUSI 4403, BUSI 4563, BUSI 4613, BUSI 4653, ECON 3833, IDST 2706 (courses chosen must be completed with a minimum grade of C -)
7. 30h of non-business courses

## Major in Finance

5. All of the following (12h): BUSI 2033, BUSI 3073 (or ECON 2623), BUSI 3243, BUSI 3273 (each completed with a minimum grade of C-)
6. 12 h from BUSI 3233 , BUSI 3253 , BUSI 4223 , BUSI 4233 , BUSI 4243 , BUSI 4253 (courses chosen must be completed with a minimum grade of C -)
7. 6 from ECON 2113 (or ECON 3913), ECON 2623 (if not taken in requirement above), ECON 3133, ECON 3143
8. 24 h of non-business courses

## Major in Marketing

5. BUSI 3433, BUSI 3473 (each completed with a minimum grade of C-)
6. 12h from BUSI 3463, BUSI 4403, BUSI 4413, BUSI 4423, BUSI 4433, BUSI 4483 , BUSI 4543, BUSI 4653 (courses chosen must be completed with a minimum grade of C -)
7. 30h of non-business courses

## Bachelor of Business Administration with Major

## Graduation Requirements

Students must complete a minimum of 120 credit hours including the program requirements outlined below. In addition, a minimum program GPA of 2 is required for graduation.

## Program Requirements

Students must complete the 60 credit hours outlined in requirements $1 \& 2$ below, plus additional courses as described within their chosen major.

1. All of the following courses (57h): BUSI 1013, BUSI 1703, BUSI 2803, BUSI 2013, BUSI 2223, BUSI 2233, BUSI 2423, BUSI 2433, BUSI 2513, BUSI 2733 , BUSI 2743, BUSI 3063, BUSI 3613, BUSI 4953, BUSI 4963, COMM 1213, ECON 1013, ECON 1023, ECON 2613, each completed with a minimum grade of C-
2. 3 h from: MATH 1613 or MATH 1013 (whichever course is chosen must be completed with a minimum grade of C -)

## Major in Accounting

3. All of the following (9h): BUSI 2033, BUSI 3073, BUSI 3083 (each completed with a minimum grade of C-)
4. 15 h from: BUSI 3113, BUSI 3373, BUSI 3383, BUSI 3623, BUSI 4013, BUSI 4073, BUSI 4083, BUSI 4113 (or approved equivalents) (courses chosen must be completed with a minimum grade of C -)
5. 3oh of non-business courses
6. 6h university electives (business or non-business)

## Major in Business Technology Management

3. All of the following (21h): BUSI 3723, BUSI 3853, BUSI 4663 COMP 1813, COMP 2863, COMP 3513, COMP 2853 (each completed with a minimum grade of C-)
4. 6 h from: BUSI 3293, BUSI 3733, BUSI 4553, BUSI 4653 (courses chosen must be completed with a minimum grade of C -)
5. 3h from COMP 1113, COMP 1893, COMP 2903, COMP 2923
6. 15 h of non-business courses
7. 15h university electives (business or non-business)

## Major in Employment Relations

3. All of the following (9h): BUSI 3313, 3323, 4313 (each completed with a minimum grade of C -)
4. 15 h from BUSI 3483, BUSI 3623, BUSI 3723, BUSI 3733, BUSI 3753, BUSI 3763 , BUSI 4323, BUSI 4633, BUSI 4663, BUSI 4933, BUSI 4943, COMM 1223 (courses chosen must be completed with a minimum grade of $\mathrm{C}-$ )
5. 15 h from ECON, PSYC, SOCI, WGST or other non-business disciplines related to the field of Employment Relations as approved by the Director of the School of Business
6. 15 h of non-business courses
7. 6h university electives (business or non-business)

## Major in Entrepreneurship and Innovation

3. All of the following ( 9 h): BUSI 3773, BUSI 4773, BUSI 4553 (each completed with a minimum grade of C -)
4. 12 h from BUSI 2763, BUSI 3853, BUSI 3723, BUSI 4403, BUSI 4563, BUSI 4613 , BUSI 4653, ECON 3833, IDST 2706 (courses chosen must be completed with a minimum grade of C -)
5. 3oh non-business electives
6. 9h university electives (business or non-business)

## Major in Finance

3. All of the following (12h): BUSI 2033, BUSI 3073 (or ECON 2623), BUSI 3243, BUSI 3273 (each completed with a minimum grade of C - or better)
4. 12 h from BUSI 3233, BUSI 3253. BUSI 4223, BUSI 4233, BUSI 4243, BUSI 4253 (courses chosen must be completed with a minimum grade of C -)
5. 6 h from ECON 2113 (or ECON 3913), ECON 2623 (if not taken in requirement above), ECON 3133, ECON 3143)
6. 24h of non-business courses
7. $6 h$ of university electives

## Major in Marketing

3. BUSI 3433, BUSI 3473 (completed with a minimum grade of C-)
4. 12 h from BUSI 3463 , BUSI 4403, BUSI 4413, BUSI 4423, BUSI 4433, BUSI 4483 , BUSI 4543, BUSI 4653 (courses chosen must be completed with a minimum grade of C -)
5. 30h of non-business courses
6. 12 h of university electives

## Major in English

3. See the School of Business and Department of English for program details.

## Major in French

3. FREN 2003, FREN 2013, FREN 2023, FREN 2113, FREN 2123,
4. FREN 2713 or FREN 3733
5. 3 h from: FREN 3323, FREN 3513, FREN 3523, FREN 3633, FREN 3643, FREN 3743, FREN 4613 (Canadian)
6. 3h from: FREN 2033, FREN 3013, FREN 3023, FREN 4003 (Adv. Lang.)
7. 12h FREN at the 3000/4000 level, with a minimum of 6 h at the 4000 level (42h)
8. 18 h of university electives

French credits are normally transferred from foreign study in the third or fourth year of the program. The option also exists to have a number of business electives done abroad. The French Major also includes a year overseas and so may take five years to complete.

## Major in German

3. A minimum of 42 h in German.
4. 18 h of university electives

German credits are normally transferred from foreign study in the third or fourth year of the program. The option also exists to have a number of business electives done abroad. The German Major also includes a year overseas and so may take five years to complete.

## Major in Spanish

3. SPAN 1023, SPAN 2013, SPAN 2023, SPAN 2113, SPAN 2123, SPAN 3103, SPAN 3203
4. 3 h from SPAN 3513 or SPAN 3523
5. 3 h of Spanish literature at the 3000 or 4000 level
6. 3 h of Spanish American literature at the 3000 or 4000 level
7. 3 h of either Spanish or Spanish American culture at the 3000 or 4000 level (whichever was not taken at the 2000 level)
8. 3 h of translation at the 3000 or 4000 level
9. 3 h courses chosen in consultation with the department at the 3000 or 4000 level
10. 3h Spanish course
11. 18 h of university electives

Spanish credits are normally transferred from foreign study in the third or fourth year of the program. The option also exists to have a number of business electives done abroad. The Spanish Major also includes a year overseas and so may take five years to complete.

## Canadian Studies

Office of the Dean of Arts; Beveridge Arts Centre, Room 224
Coordinator: Dr. Stephen Henderson (stephen.henderson@acadiau.ca)
Canadian Studies at Acadia University is a multi-disciplinary program designed to introduce students to various perspectives on Canadian society. In addition to a general

Canadian studies program, students may choose courses which focus primarily on Atlantic Canada, on Canadian culture, or on contemporary Canadian issues. It is also possible to earn a major in Canadian Studies alone, or to combine it with another discipline to receive a double major.

Programs Offered: Bachelor of Arts with Honours (BAH), Bachelor of Arts (BA), Minor

## Honours in Canadian Studies

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts with Honours requirements as outlined in the previous section of this calendar. Students completing Honours in Canadian Studies must complete French courses for the 6h language requirement within the Arts Core

## Program Requirements

Students must complete a minimum of 60 credit hours in the Honours program as follows:

1. 6 from IDST 2503, IDST 2513; HIST 2773, HIST 2783
2. 12h Canadian Studies courses at the 3000/4000-level
3. 6h Canadian Studies courses at the 4000-level and
4. 6 h thesis (4996). The thesis course may be chosen from a range of disciplines, depending on a student's interests and supervisor.
5. 30h Canadian Studies courses, with a maximum of 12 h of Canadian Studies courses at the 1000-level

## Major in Canadian Studies

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts with Major requirements as outlined in the previous section of this calendar. Students completing a Major in Canadian Studies must complete French courses for the 6h language requirement within the Arts Core

## Program Requirements

Students must complete a minimum of 48 credit hours in the Major program as follows:

1. 6 h from: IDST 2503, IDST 2513, HIST 2773, HIST 2783
2. 12h Canadian Studies courses at the 3000/4000-level
3. 30h Canadian Studies courses, with a maximum of 12 h of Canadian Studies courses at the 1000-level

## Canadian Studies as a Second Major

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts with Double Major requirements as outlined in the previous section of this calendar. Students completing a second Major in Canadian Studies must complete French courses for the 6h language requirement within the Arts Core

## Program Requirements

Students must complete a minimum of 48 credit hours in the Major program as follows:

1. 6 h from: IDST 2503, IDST 2513, HIST 2773, HIST 2783
2. 36 h of Canadian Studies courses with at least 12 h at the $3000 / 4000-l e v e l$ and no more than 12 h at the 1000-level

## Minor in Canadian Studies

Multidisciplinary minors offer an alternative to completing the minor requirements for a program in a single discipline. The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a multidisciplinary minor are required to complete a minimum of 18 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

A minor in Canadian Studies requires the completion of 6 h from: IDST 2503, IDST 2513, HIST 2773, HIST 2783, as well as the requisite number of credit hours from the list of Canadian Studies courses below. With the exception of IDST courses, no more than 12 h can be in a single discipline. All courses offered towards this minor must be completed with a grade of C - or better.

## Cross-Listed Courses

The following courses may be counted towards credit in Canadian Studies: ART 2083, ART 2093, ECON 1013, ECON 1023, ECON 2713, ECON 2813, ECON 2823, ECON 3203, ECON 3323, ECON 3413, ECON 3423, ECON 3433, ECON 3513, ECON 3523, ECON 3713, ECON 4813, ENGL 2563, ENGL 2573, ENGL 3503, ENGL 3513, ENGL 3573, ENGL 3613, ENGL 3763, ENGL 3903, ENGL 4253, FRAN 3323, FRAN 3443, FRAN 3513, FRAN 3523, FRAN 3633, FRAN 3643, FRAN 4613, HIST 2263, HIST 2343, HIST 2353, HIST 2403, HIST 2433, HIST 2443, HIST 2463, HIST 2483, HIST 2493, HIST 2773, HIST 2783, HIST 3143, HIST 3343, HIST 3353, HIST 3363, HIST 3373, HIST 3383, HIST 3533, HIST 3613, HIST 3623, HIST 3663, HIST 3683, HIST 4343, IDST 2503, IDST 2513, IDST 3103, IDST 3123, POLS 1006 or POLS 1303/POLS 1403, POLS 2006, POLS 3466, POLS 3503, POLS 3543, POLS 3603, POLS 3703, POLS 3803, POLS 4103, POLS 4203, POLS 4283, POLS 4303, POLS 4403, POLS 4903, SOCI 1013, SOCI 2123, SOCI 2253, SOCI 2323, SOCI 2343, SOCI 2413, SOCI 2633, SOCI 2713, SOCI 2723, SOCI 3633, SOCI 3703, SOCI 3743, SOCI 4193, THEA 3923, WGST 2906, WGST 3023, WGST 4913

## Chemistry

Department of Chemistry; Elliott Hall Rm. 217
Ph: (902)585-1242; Fax: (902)585-1114; http://chemistry.acadiau.ca/
The BScH and BSc (Chemistry) programs satisfy the accreditation requirements for membership in the Chemical Institute of Canada.

Programs Offered: Bachelor of Science with Honours (BScH), Bachelor of Science (BSc), Minor.

## Chemistry Core

CHEM 1113, CHEM 1123, CHEM 2103, CHEM 2303, CHEM 2513, CHEM 2533,
CHEM 2713, CHEM 2813, CHEM 3103, CHEM 3523

## Honours in Chemistry

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science with Honours requirements as outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 75 credit hours in the Honours program as follows:

1. The Chemistry Core (30h)
2. CHEM 3113 and CHEM 4996
3. 18h Chemistry at the 3000/4000-level, excluding CHEM 3913 and CHEM 3923, and a minimum of 3 h at the 4000 -level
4. MATH 1013 and MATH 1023
5. One of: MATH 2013 or MATH 2753
6. One of: MATH 2023 or MATH 2723
7. PHYS 1013 and PHYS1O23

## Honours in Chemistry Combined with the Certificate of Applied Science

Those students who complete the requirements for the Certificate of Applied Science may substitute APSC 2113 in place of CHEM 2103 and use APSC 3313 towards their Honours in Chemistry. Students should consult with the School of Engineering regarding the requirements for the Certificate of Applied Science.

The BScH and BSc (Chemistry) programs satisfy the accreditation requirements for membership in the Chemical Institute of Canada.

## Major in Chemistry <br> Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science with Major requirements as outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 69 credit hours in the Major program as follows:

1. The Chemistry Core (30h)
2. 3h from: CHEM 4903 or CHEM 3913
3. Additional 18 h Chemistry at the 3000/4000-level, excluding CHEM 4903, CHEM 3913, and CHEM 3923, with a minimum of 3 h at the 4000-level
4. MATH 1013 and MATH 1023
5. 3 h from: MATH 2013 or MATH 2753
6. 3h Mathematics elective
7. PHYS 1013 and PHYS 1023

## Major in Chemistry Combined with the Certificate of Applied Science

Those students who complete the requirements for the Certificate of Applied Science may substitute APSC 2113 in place of CHEM 2103 and use APSC 3313 towards their Major in Chemistry. Students should consult with the School of Engineering regarding the requirements for the Certificate of Applied Science.

## Double Major: Chemistry as First Major

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science with Double Major requirements as outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 51 credit hours towards the Chemistry Double Major program as follows:

1. 6 from: CHEM 1113/CHEM 1123 or CHEM 1013/ CHEM 1023,
2. All of the following: CHEM 2303, CHEM 2513, CHEM 2813
3. 24 h additional Chemistry (with a minimum of 18 h at the $3000 / 4000-\mathrm{level}$ ), chosen in consultation with the chemistry department
4. MATH 1013 and MATH 1023
5. 6 h from: PHYS 1013/1023 or PHYS 1053/PHYS 1063

## Double Major: Chemistry as Second Major

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science with Double Major requirements as outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 36 credit hours towards the Chemistry Double Major program as follows:

1. 3oh Chemistry courses chosen in consultation with the Chemistry department
2. 6 from: MATH 1013/MATH 1023 or MATH 1213/MATH 1223 or
3. MATH 2233/MATH 2243

## Minor in Chemistry

The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a minor in Chemistry are required to complete a minimum of 12 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

## Cross-Listed Courses

The following course may be counted towards major or minor credit in Chemistry: APSC 3213

## Classical Studies

Department of History and Classics; Beveridge Arts Centre, Room 441
Ph: (902) 585-1504; Fax: (902) 585-1070; http://history.acadiau.ca/
Classical Studies programs engage in the study of the languages, literatures, history and society of Greco-Roman antiquity, and offer courses in the archaeology of ancient Egypt and the Mediterranean world, as well as the classical tradition of the West.

Programs Offered: Bachelor of Arts with Honours (BAH), Bachelor of Arts (BA), Minor

## Honours in Classical Studies

Graduation Requirements
In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts with Honours requirements as outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 6oh towards the Honours program as follows:

1. 18 h from Greek and Latin with at least 6 h in each
2. 12h in Classics at the 3000-level
3. CLAS 4996
4. 24 h in Classics courses

## Honours with Double Major in Classical Studies

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts with Honours (Double Major) requirements as outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 54 h towards the Honours Classics program as follows:

1. 18 h from Greek and Latin with at least 6 h in each
2. 12 h in Classics at the 3000 -level
3. CLAS 4996
4. 18 h in Classics courses

## Major in Classical Studies

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Major) requirements as outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 42h towards the Major program as follows:

1. 6h from GREE 1103, GREE 1113. LATI 1103, LATI 1113, or equivalent
2. 36 h in Classics courses

## Double Major in Classical Studies

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Double Major) requirements as outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 36 h towards the Classics program as follows:

1. 6 h from GREE 1103, GREE 1113. LATI 1103, LATI 1113 or equivalent
2. 3oh in Classics courses

## Minor in Classical Studies

The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a minor are required to complete a minimum of 12 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

Note: In any of the above programs, Latin and/or Greek courses may be substituted, in consultation with the Department, for the elective Classics courses.

## Cross-Listed Courses

The following courses may be counted towards credit in Classical Studies: CREL 2206, CREL 2553, HIST 2033, HIST 3713, IDST 2433, PHIL 2006, PHIL 3513, PHIL 3533, as well as Greek (GREE) and Latin (LATI) courses.

## Community Development

Department of Community Development; War Memorial Gymnasium Ph: (902) 585-1307; Fax: (902) 585-1702; http://commdev.acadiau.ca/

The Acadia Community Development Program develops professionals who contribute to improving quality of life, building healthy, active and sustainable communities. Our graduates provide leadership in the broad fields of social advocacy, health and wellness promotion, community economic development, recreation, parks and tourism development, and environmental and adventure education. Our graduates strive to develop a sustainable and just society. Students work collaboratively with faculty both in the classroom and in the community to build specific competencies and define an area of focus. Essential theory and concepts are balanced with field experiences to develop knowledge, skills and confidence. Students have unique experiences in their final year that include a major community-based research project conducted either locally or internationally, and each student gains valuable work experience in a professional work placement relevant to their career interests.

Programs Offered: Bachelor of Community Development with Honours (BCDH), Bachelor of Community Development (BCD). The BCDH and BCD programs are also offered with Environmental and Sustainability Studies (ESST).

All four degrees are additionally offered with a Co-op option (pending MPHEC approval). To graduate with the Co-op option, students must complete: COOP 1990 (first 4-month work term); COOP 2900 (second 4-month work term), and COOP 3903 (third 4-month work term). COOP 1900 and 2900 are prerequisites for 3903 , and 3903 provides 3 credit hours that count as one elective course towards graduation.

Alternatively, in order to graduate with the Co-op option, students may complete: COOP 3703 (12-month internship that provides 3 credit hours that count as one elective course towards graduation requirements); or COOP 3803 ( 16 -month internship that provides 3 credit hours that count as one elective course towards graduation requirements.

Visit http://co-op.acadiau.ca/ for more information.

## The Core Term

The core term provides opportunities for final year students to apply their accumulated knowledge and expertise in professional community development experiences. Students will complete two block integrated courses CODE 4013 and CODE 4033. Then they will complete CODE 4059 in which they can complete a three-week community development project (locally or internationally) and a six-week professional placement, or complete a nine-week professional placement that involves a community development research project.

Students must successfully complete all Community Development Core courses at the 1000-, 2000-, \& 3000-levels and must have a fourth-year standing for entrance into the core term or have permission of the Department.

## Bachelor of Community Development with Honours

## Graduation Requirements

Students must complete the program as outlined below. A GPA of 3.0 is required in the courses in the Community Development Core. A program GPA of 3.0 is required to graduate in the Honours program.

## Program Requirements

Students must complete 120 credit hours in the Honours program as follows:

1. Community Development Core (39h): CODE 1013, CODE 1023, CODE 1033, CODE 2013, CODE 2023, CODE 2033, CODE 3013, CODE 4013, CODE 4033, CODE 4059, COMM 1213,
2. All of the following: CODE 1100, CODE 3100, CODE 4996
3. Community Development Professional Electives (12h): CODE electives within and across four areas: Recreation Management, Community Wellness, Social Advocacy and Activism, and Outdoor and Adventure Education.
4. Management Core (18h): BUSI courses determined by the Department of Community Development and the School of Business, completed with grades of C- or better
5. Liberal Education Core (27h): 27 h of Arts or Science courses taken at the direction of the Department
6. 3 h approved research course
7. 15 h of approved electives to represent an area of study

- CODE 1100 must be completed at the commencement of the second year of study.


## Bachelor of Community Development

## Graduation Requirements

In addition to the program requirements outlined below, a minimum program GPA of 2.0 is required to graduate.

## Program Requirements

Students must complete 120 credit hours in the BCD program as follows:

1. Community Development Core (39h): CODE 1013, CODE 1023, CODE 1033, CODE 2013, CODE 2023, CODE 2033, CODE 3013, CODE 4013, CODE 4033, CODE 4059, COMM 1213,
2. CODE 1100 and 3100
3. Community Development Professional Electives (12h): CODE electives within and across four areas: Recreation Management, Community Wellness, Social Advocacy and Activism, and Outdoor and Adventure Education.
4. Management Core (18h): BUSI courses determined by the Department of Community Development and the School of Business, completed with grades of C- or better
5. Liberal Education Core (27h): 27 h of Arts or Science courses taken at the direction of the Department
6. 24 h of electives at the direction of the Department to represent an area of study

- CODE 1100 must be completed at the commencement of the second year of study.


## ESST Concentration Areas

Innovation and Entrepreneurship for Sustainability
Focus is on gaining knowledge and skill to help shift businesses and organizations toward sustainability in areas such as organizational development and training, procurement, and policy development. Courses include: BUSI 1703, BUSI 2733, BUSI

3753, BUSI 3773, BUSI 4553, BUSI 4613, BUSI 4633, CODE 2033, CODE 3523 , CODE 3603, ECON 2713, ECON 3313, EDUC 42A3, EDUC 42B3, ESST 2013, ESST 3503, ESST 3513, ESST 3523, ENVS 3113, ENVS 3423, HIST 2283, IDST 2213, IDST 2706, PHIL 2303.

## Environmental Advocacy, Education \& Activism

Focus is on gaining knowledge and skills to help shift social, political and educational structures and processes toward sustainability. Work and policy analysis is at multiple levels: local, regional, national, international. Courses include: BUSI 2763, BUSI 4633, CREL 2413, CODE 2033, CODE 3523, CODE 3563, CODE 3603, ECON 2713, ECON 3713, EDUC 42A3, EDUC 42B3, ENVS 3423, ENVS 3503, ESST 3503, ESST 3513, ESST 3523, HIST 2283, HIST 3383, IDST 2213, PHIL 2303, POLS 2113, POLS 3213, POLS 3483, POLS 3543, POLS 3883, POLS 4603, POLS 4843, SOCI 3633, SOCI 2413, SOCI 2563, SOCI 3223, WGST 2913.

## Environmental Thought and Practice

Focus is on the evolution and development of sustainability concepts from multiple perspectives across time. Attention is paid to critical and philosophical perspectives of the implementation of sustainability in thought and practice. Courses include: BUSI 2763, BUSI 4633, CODE 2033, CODE 3013, CODE 3543, CODE 3563, CREL 2413, ECON 2713, EDUC 42A3, EDUC 3523, EDUC 3533, ENVS 1643, ENVS 3113, ENVS 3313, ESST 2013, ESST 3503, ESST 3513, ESST 3523, HIST 2283, HIST 3383, POLS 2113, POLS 3213, POLS 3483, POLS 3543, POLS 3883, POLS 4843, SOCI 3223, WGST 2913.

## Sustainable Community Development

Focus is on gaining knowledge and skill to help shift individual lifestyles and communities toward sustainability in areas such as consumer education and community planning. Courses include: BIOL 3363, BIOL 4423, BUSI 2733, BUSI 2763, BUSI 3723, BUSI 3753, BUSI 3773, CODE 1533, CODE 3013, CODE 3523, CODE 3563, CODE 3603, CODE 4523, ECON 2713, ENVS 1643, ENVS 3423, ESST 2013, ESST 3503, ESST 3513, ESST 3523, HIST 2283, HIST 3383, NUTR 2323, PHIL 2303, POLS 3213, POLS 3483, POLS 3543, POLS 4603, POLS 4843, SOCI 2413, SOCI 2563 , SOCI 3633.

## Bachelor of Community Development with Honours with Environmental and Sustainability Studies <br> Graduation Requirements

In addition to the program requirements outlined below, a minimum program GPA of 3.0 is required to graduate.

## Program Requirements

Students must complete a minimum of 120 credit hours. All students must complete the following 60 credit hours below (requirements 1-7), plus additional courses from their chosen ESST Concentration as described below.

1. All of the following: CODE 1023, CODE 1033, CODE 1100, CODE 2013, CODE 2033, CODE 3013, CODE 3100, CODE 4013, CODE 4033, CODE 4059, CODE 4996, COMM 1213 ESST 1003, ESST 1023, ESST 4003
2. 3h from: ESST 2003 or CODE 1013
3. 3 h from: ESST 3003 or CODE 2023
4. 12h of Community Development Professional Electives Core courses with minimum grades of C-
5. 18 h of Management Core courses with minimum grades of C-
6. 3 h from an approved research course
7. 15 h electives at the direction of the Department

## Concentration in Innovation and Entrepreneurship for Sustainability

8. BUSI 2763
9. 9 h from: Innovation and Entrepreneurship for Sustainability area
10. 6h selected from other ESST Concentration areas

## Concentration in Environmental Advocacy, Education, and Activism

8. ESST 2013
9. 9 h from: Environmental Advocacy, Education, and Activism area
10. 6 h selected from other ESST Concentration areas

## Concentration in Environmental Thought and Practice

8. PHIL 2303
9. 9 h from: Environmental Thought and Practice area
10. 6h selected from other ESST Concentration areas

## Concentration in Sustainable Community Development

8. 12h from: Sustainable Community Development area
9. 6 h selected from other ESST Concentration areas

- CODE 1100 must be completed at the commencement of the second year of study.


## Bachelor of Community Development with Environmental and Sustainability Studies <br> Graduation Requirements <br> In addition to the program requirements outlined below, a minimum program GPA of 2.0 is required to graduate.

## Program Requirements

Students must complete 120 credit hours in the program as follows:

1. All of the following: CODE 1023, CODE 1033, CODE 1100, CODE 2013, CODE 2033, CODE 3013, CODE 3100, CODE 4013, CODE 4033, CODE 4059, COMM 1213, ESST 1003, ESST 1023, ESST 4003
2. 3 h from: ESST 2003 or CODE 1013
3. 3 h from: ESST 3003 or CODE 2023
4. 12h of Community Development Professional Electives Core courses with minimum grades of C-
5. 18 h of Management Core courses with minimum grades of C-
6. 24 h electives at the direction of the Department

## Concentration in Innovation and Entrepreneurship for Sustainability

7. BUSI 2763
8. 9 h from: Innovation and Entrepreneurship for Sustainability
9. 6 h selected from other ESST Concentration areas

## Concentration in Environmental Advocacy, Education, and Activism

7. ESST 2013
8. 12h from: BUSI 2763, BUSI 4633, CREL 2413, CODE 2033, CODE 3563, ECON 2713, ECON 3713, EDUC 42A3, EDUC 42B3, ENVS 3423, HIST 2283, HIST 3383, IDST 2213, PHIL 2303, POLS 3213, POLS 3483, POLS 3543, POLS 3883, POLS 4603, POLS 4843, SOCI 2413, SOCI 2563, SOCI 3223
9. 9 h selected from other ESST Concentration areas

## Concentration in Environmental Thought and Practice

7. PHIL 2303
8. 9 h from: Environmental Thought and Practice area
9. 6 h selected from other ESST Concentration areas

## Concentration in Sustainable Community Development

7. 12h from: Sustainable Community Development
8. 6h selected from other ESST Concentration areas

- CODE 1100 must be completed at the commencement of the second year of study.


## Bachelor of Community Development with Honours with Psychology

## Graduation Requirements

In addition to the program requirements outlined below, a minimum program GPA of 3.0 is required to graduate. A minimum GPA of 3.0 is also required in the Community Development Core.

## Program Requirements

Students must complete 120 credit hours in the program as follows:

1. Community Development Core (39h): CODE 1013, CODE 1023, CODE 1033, CODE 2013, CODE 2023, CODE 2033, CODE 3013, CODE 4013, CODE 4033, CODE 4059, COMM 1213,
2. All of the following: CODE 1100, CODE 3100, CODE 4996
3. Community Development Professional Electives: 12h of CODE electives within and across four areas: Recreation Management, Community Wellness, Social Advocacy and Activism, and Outdoor and Adventure Education.
4. Management Core (18h): BUSI courses determined by the Department of Community Development and the School of Business, completed with grades of C- or better
5. Liberal Education Core (6h): 6h of Arts or Science courses taken at the direction of the Department
6. PSYC 1013 and PSYC 1023 with grades of C- in each
7. 15 h from Psychology courses with minimum grades of C-
8. 3h approved research course
9. 15 h of approved electives to represent an area of study

- CODE 1100 must be completed at the commencement of the second year of study.


## Bachelor of Community Development with Psychology

## Graduation Requirements

In addition to the program requirements outlined below, a minimum program GPA of 2.0 is required to graduate. A minimum GPA of 3.0 is also required in the Community Development Core.

## Program Requirements

Students must complete 120 credit hours in the program as follows:

1. Community Development Core (39h): CODE 1013, CODE 1023, CODE 1033, CODE 2013, CODE 2023, CODE 2033, CODE 3013, CODE 4013, CODE 4033, CODE 4059, COMM 1213,
2. All of the following: CODE 1100, CODE 3100
3. Community Development Professional Electives: 12h of CODE electives within and across four areas: Recreation Management, Community Wellness, Social Advocacy and Activism, and Outdoor and Adventure Education.
4. Management Core (18h): BUSI courses determined by the Department of Community Development and the School of Business, completed with grades of C- or better
5. Liberal Education Core (6h): 6h of Arts or Science courses taken at the direction of the Department
6. PSYC 1013 and PSYC 1023 with grades of C- in each
7. 15h from Psychology courses with minimum grades of C-
8. 24 h of approved electives to represent an area of study

- CODE 1100 must be completed at the commencement of the second year of study.


## Comparative Religion

Office of the Dean of Arts; Beveridge Arts Centre, Room 224
Coordinator: Dr. Donna Seamone (donna.seamone@acadiau.ca)
Comparative Religion strengthens our world view by the study of the traditional world religions, aboriginal and feminist forms of spirituality, and the relation of religion to health and ecology.

Program Offered: Minor

## Minor in Comparative Religion

Multidisciplinary minors offer an alternative to completing the minor requirements for a program in a single discipline. The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a multidisciplinary minor are required to complete a minimum of 18 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

A minor in Comparative Religion requires the completion of a minimum of 9 h of CREL courses as well as the addition required number of credit hours from the list of courses below. With the exception of CREL courses, no more than 12 h can be in a single discipline and all courses offered towards the minor must be completed with a grade of C - or better.

## Cross-Listed Courses

The following courses may be counted as credit in Comparative Religion: CLAS 2223, CLAS 2273, HIST 2003, HIST 2033, HIST 2043, HIST 2113, HIST 2243, HIST 3453, HIST 3683, SOCI 2333, SOCI 2853, PHIL 2403, IDST 1113, IDST 1123, IDST 2813, IDST

## Computer Science

Jodrey School of Computer Science; Carnegie Hall, Room 310
Ph: (902) 585-1331; Fax: (902) 585-1067; http://cs.acadiau.ca/
The Jodrey School of Computer Science offers bachelors and masters degrees, both with the Co-op option, to prepare professional computer scientists with a broad knowledge of computer science and a thorough understanding of computer system software. The programs provide in-depth learning of modern software design and implementation and include the study of computer systems hardware. The BCS, BCSH, and BCSS programs are accredited by the Canadian Information Processing Society (CIPS) making Acadia graduates eligible for CIPS Information Systems Professional (ISP) certification after satisfying the short working experience criterion.

Programs Offered: Bachelor of Computer Science with Honours (BCSH), Bachelor of Computer Science (BCS), Bachelor of Computer Science with Specialization (BCSS), Bachelor of Science with Honours (BSc), Second Major in Computer Science, Minor

## Bachelor of Computer Science with Honours (BCSH)

## Graduation Requirements

In addition to the program requirements outlined below, a minimum CGPA of 3.0 is required to graduate. The following courses may not count towards a degree in Computer Science: APSC 1413, ECON 2613, ECON 2623, MATH 1213, MATH 1223, MATH 1613, any 1800 - or 2800 -level Computer Science course (with the exception of COMP 2853, which may be used as an elective course only).

## Program Requirements

Students must complete 120 credit hours as follows:

1. All of the following (51h): COMP 1113, COMP 1123, COMP 2103, COMP 2113, COMP 2203, COMP 2213, COMP 2663, COMP 2903, COMP 3343, COMP 3403, COMP 3413, COMP 3613, COMP 3703, COMP 3713, COMP 3753, COMP 4996, each of which must be completed with a minimum grade of B-
2. 12 h Computer Science courses at $3000 / 4000-l e v e l$, each with a minimum grade of B-
3. 6 h from: MATH $1413 / 1323$ (recommended) or MATH 1313/MATH 1333 with minimum grades of B-
4. MATH 1013 and MATH 1023, with minimum grades of C-
5. 6h from: MATH 2213/MATH 2223 or MATH 2233/MATH 2243, with minimum grades of C-
6. 6h Mathematics elective above the $1000-l e v e l$ with a minimum grade of C-
7. 6h selected from English, Art at the 1000 -level, Classics, Comparative Religion, a single language other than English, History, Music (not applied, vocal or instrumental methods, or practical studies) Philosophy, Theology (THEO 3013/THEO 3023, BIBL 2013/BIBL 2023, GREE 3013/GREE 3023), or Women's and Gender Studies or COMM 1213/COMM 1223
8. 9 h of courses offered by the Faculty of Arts (not SOCI 3103)
9. 12 h from the Faculty of Pure and Applied Science (not Mathematics or Computer Science) or from the School of Business Administration
10. 6h of elective courses with at most 3 h of Computer Science

## Data Analytics Option for BCSH

In accord with the requirements listed above for the BCSH, students must take:
11. 6h of MATH 3233, MATH 3283, and MATH 3293 (re: point 6)
12. 12h of COMP 2513, COMP 3513, COMP 3503, COMP 3923 (Data Visualization), COMP 4613, or COMP 4923 (Machine Learning) (re: points 2, 10)
13. 12h of COMP 2853, ECON 1013, ECON 1023, BUSI 1013, BUSI 2013, BUSI 2513, BUSI 2803, BUSI 3063 (re: points 8, 9)
14. the COMP 4996 Thesis must focus on a Data Analytics topic
15. NOTE: Credit can only be obtained for one of COMP 2513 or COMP 2853

## Bachelor of Computer Science (BCS)

## Graduation Requirements

In addition to the program requirements outlined below, a minimum CGPA of 2.0 is required to graduate. The following courses may not count towards a degree in computer science: APSC 1413, ECON 2613, ECON 2623, MATH 1213, MATH 1223, MATH 1613, any 1800- or 2800-level Computer Science course (with the exception of COMP 2853, which may be used as an elective course only).

## Program Requirements

Students must complete 120 credit hours as follows:

1. All of the following (45h): COMP 1113, COMP 1123, COMP 2103, COMP 2113, COMP 2203, COMP 2213, COMP 2663, COMP 2903, COMP 3343, COMP 3403, COMP 3613, COMP 3703, COMP 3713, COMP 3753, COMP 4983, each with a minimum grade of C-
2. 6 h from: MATH $1413 / 1323$ (recommended) or MATH $1313 / 1333$, with minimum grades of C-
3. 12h additional Computer Science courses with minimum grades of C-
4. MATH 1013, MATH 1023, 3h from MATH 2233 or MATH 2213, each with minimum grades of C-
5. 6h selected from English, Art at the 1000-level, Classics, Comparative Religion, a single language other than English, History, Music (not applied, vocal or instrumental methods, or practical studies) Philosophy, Theology (THEO 3013/THEO 3023, BIBL 2013/BIBL 2023, GREE 3013/GREE 3023), or Women's and Gender Studies or COMM 1213/COMM 1223
6. 9 h of courses offered by the Faculty of Arts (not SOCI 3103)
7. 12 h from the Faculty of Pure and Applied Science (not Mathematics or Computer Science) or from the School of Business Administration
8. 21 h of electives (with at most 15 h in Computer Science)

## Data Analytics Option for BCS

In accord with the requirements listed above for the BCS, students must take:
9. MATH 2223 or 2243 (re: point 8)
10. 6h of MATH 3233, MATH 3283, and MATH 3293 (re: point 8)
11. 12h of COMP 2513, COMP 3513, COMP 3503, COMP 3923 (Data Visualization), COMP 4613, or COMP 4923 (Machine Learning) (re: point 3)
12. 12h of COMP 2853, ECON 1013, ECON 1023, BUSI 1013, BUSI 2013, BUSI 2513, BUSI 2803, BUSI 3063 (re: points 6, 7, 8)
13. the Comp 4983 Project must focus on a Data Analytics topic.

## Bachelor of Computer Science with Specialization (BCSS)

## Graduation Requirements

In addition to the program requirements outlined below, a minimum CGPA of 2.0 is required to graduate. The following courses may not count towards a degree in computer science: APSC 1413, ECON 2613, ECON 2623, MATH 1213, MATH 1223, MATH 1613, any

1800- or 2800-level Computer Science course (with the exception of COMP 2853, which may be used as an elective course only).

## Program Requirements

Students must complete 120 credit hours as follows:

1. All of the following (42h): COMP 1113, COMP 1123, COMP 2103, COMP 2113, COMP 2203, COMP 2213, COMP 2663, COMP 2903, COMP 3343, COMP 3613, COMP 3663, COMP 3713, COMP 3753, COMP 4983, each with a minimum grade of C-
2. 36 h in one of the following Specializations (all courses presented for the Specialization must be completed with a minimum grade of C-):

## Software Development

a) All of the following (15h): COMP 2513, COMP 3513, COMP 3583, COMP 3773, COMM 1213
b) 12 h from the School of Business Administration
c) 9 h with permission of the School

## Game Development

a) All of the following (21h): COMP 3553, COMP 3583, COMP 3773, COMP 4343, COMP 4553, COMP 4613, MATH 2313
b) 15 h with permission of the School

## Mobile and Ubiquitous Computing

a) All of the following (24h): COMP 2513, COMP 2523, COMP 3583, COMP 4343, COMP 4583, PSYC 1013, PSYC 1023, PSYC 2143
b) 12h with permission of the School
3. MATH 1013, MATH 1023, 3h from MATH 2233 or MATH 2213, each with minimum of grade of C-
4. 6 h from: MATH 1413/1323 (recommended) or MATH 1313/1333 with minimum grades of C-
5. 6h selected from English, Art at the 1000-level, Classics, Comparative Religion, a single language other than English, History, Music (not applied, vocal or instrumental methods, or practical studies) Philosophy, Theology (THEO 3013/3023, BIBL 2013/2023, GREE 3013/3023), or Women's and Gender Studies or COMM 1213/1223 (Students completing the specialization in Software Development may not count COMM 1213 and COMM 1223 towards this requirement.)
6. 9 h of courses from the Faculty of Arts (not SOCI 3103).
7. 12h of electives (maximum of 6 h in Computer Science)

- The project completed for COMP 4983 must be in the area of the specialization


## Honours in Computer Science (BScH)

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science with Honours requirements as outlined in the previous section of this calendar. The following courses may not count towards a degree in computer science: APSC 1413, ECON 2613, ECON 2623, MATH 1213, MATH 1223, MATH 1613, any 1800- or 2800-level Computer Science course (with the exception of COMP 2853, which may be used as an elective course only).

## Program Requirements

Students must complete 120 credit hours for the BScH including 60 credit hours in the Honours program as follows:

1. All of the following (39h): COMP 1113, COMP 1123, COMP 2103, COMP 2113, COMP 2213, COMP 2203, COMP 2663, COMP 2903, COMP 3343, COMP 3713, COMP 3753, COMP 4996,
2. 12 h Computer Science courses at the 3000/4000-level
3. 6 h from: MATH 1413/1323 (recommended) or MATH 1313/1333
4. 3 h from: MATH 2233 or MATH 2213

## Double Major: Computer Science as the Second Major Graduation Requirements

In addition to the program requirements outlined bellows, students must also satisfy the Double Major requirements of their degree program. The following courses may not count towards a degree in Computer Science: APSC 1413, ECON 2613, ECON 2623,
 (with the exception of COMP 2853, which may be used as an elective course only).

## Program Requirements

Students must complete 120 credit hours including 36 credit hours in the Major program as follows:

1. All of the following (18h): COMP 1113, COMP 1123, COMP 2103, COMP 2113, COMP 2203, COMP 2213
2. 6h Computer Science courses above the 1000-level (not COMP 2903)
3. 6h Computer Science at the 3000/4000-level.
4. 6 h from: MATH 1413/1323 (recommended) or MATH 1313/1333

## Certificate in Computer Science

The Certificate in Computer Science is intended for part-time students and is not open to students enrolled in a degree program on a full-time basis.

## Program Requirements

Students must complete 30 credit hours in the Certificate program as follows:

1. All of the following (18h): COMP 1113, COMP 1123, COMP 2103, COMP 2113, COMP 2203, COMP 2213,
2. 6h Computer Science courses above the 1000-level (not COMP 2903)
3. 6 h from: MATH 1413/1323 (recommended) or MATH 1313/1333

## Minor in Computer Science

The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a minor in Computer Science are required to complete a minimum of 12 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

## Cultural Studies

Office of the Dean of Arts; Beveridge Arts Centre, Room 224
Coordinator: Dr. Geoffrey Whitehall (g.whitehall@acadiau.ca)
Programs Offered: Minor

## Minor in Cultural Studies

Multidisciplinary minors offer an alternative to completing the minor requirements for a program in a single discipline. The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a multidisciplinary minor are required to complete a minimum of 18 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

A minor in Cultural Studies requires the completion of a minimum of 9 h chosen from the following: ART 2073, PHIL 2103, POLS 3483, POLS 3783, SOCI 2533. The balance of the minor is to be satisfied from a selection of courses below with enough credit hours to satisfy minor requirements in a specific program of study. All courses offered towards this minor must be completed with a grade of C- or better. No more than 12 h may be in a single discipline and only 2 of: ENGL 3663, ENGL 3673, ENGL 3683, ENGL 3693 may be presented for the minor in Cultural Studies.

## Cross-Listed Courses

The following courses may be counted as credit in Cultural Studies: ART 2073CREL 3693, ENGL 3663, ENGL 3673, ENGL 3683, ENGL 3693, ENGL 3723, HIST 2273, HIST 2463, HIST 2493, HIST 2623, IDST 1213, IDST 1223, IDST 2063, MUSI 1253, MUSI 3003, PHIL 1113, PHIL 2103, PHIL 3613, POLS 1403, POLS 3483, POLS 3783, POLS 3943, POLS 3993, POLS 4483, SOCI 2233, SOCI 2403, SOCI 2413, SOCI 2533, SOCI 2563, SOCI 3803, THEA 3923, THEA 3973.

## Diaspora Studies

Office of the Dean of Arts; Beveridge Arts Centre, Room 224
Coordinator: Dr. Kerry Vincent (kerry.vincent@acadiau.ca)
Program(s) Offered: Minor

## Minor in Diaspora Studies

Multidisciplinary minors offer an alternative to completing the minor requirements for a program in a single discipline. The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a multidisciplinary minor are required to complete a minimum of 18 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

There are no required courses for the minor in Diaspora Studies. Students who wish to complete this minor are required to present the minimum number of credit hours to satisfy minor requirements in their program of study from the list of courses below. With the exception of IDST courses, no more than 12 h of the minor in Diaspora Studies can be in a single discipline. All courses offered towards this minor must be completed with a grade of C- or better.

## Cross-Listed Courses

The following courses may be counted towards the minor in Diaspora Studies: ENGL 2563, ENGL 3663, ENGL 3673, ENGL 3683, ENGL 3693, FRAN 3323, FRAN 3513, FRAN 3523, FRAN 3633, FRAN 3643, HIST 2263, HIST 2303, HIST 2343, HIST 2393, HIST 2603, HIST 2733, HIST 2753, HIST 2773, HIST 3373, HIST 3613, IDST 1113, IDST 1123, IDST 1213, IDST 2063, IDST 2823, MUSI 2063, POLS 4883, SOCI 1113, SOCI 2853, SOCI 3133, SPAN 3413, SPAN 3423, WGST 4913.

## Economics

Department of Economics; Beveridge Arts Centre, Room 338
Ph: (902) 585-1491; http://economics.acadiau.ca/
Programs Offered: Bachelor of Arts with Honours (BAH), Bachelor of Arts with Major (BA), Minor

## Honours in Economics

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts with Honours requirements outlined in the previous section of this calendar. All Economics courses presented for an Honours program in Economics must be completed with a minimum grade of B-.

## Program Requirements

Honours in Economics is attained through either a thesis-based or course-based program of study. Regardless of which route a student chooses, a minimum of 51 h must be completed in the Honours program as follows:

Thesis-based Honours:

1. All of the following: ECON 1013, ECON 1023, ECON 2113, ECON 2213, ECON 2613, ECON 2623, ECON 3113, ECON 3123, ECON 4996
2. 18 h Economics electives
3. MATH 1613

Course-based Honours:

1. All of the following: ECON 1013, ECON 1023, ECON 2113, ECON 2213, ECON 2613, ECON 2623, ECON 3113, ECON 3123, ECON 4033, ECON 4043, ECON 4613, ECON 4623
2. 12h Economics electives
3. 3 h from MATH 1613 or MATH 1013

## Major in Economics

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Major) requirements outlined in the previous section of this calendar. All Economics courses presented for the Major program in Economics must be completed with a minimum grade of C-

## Program Requirements

Students must complete a minimum of 45h in the Major as follows:

1. All of the following: ECON 1013, ECON 1023, ECON 2113, ECON 2213, ECON 2613, ECON 3113, ECON 3123
2. 21 h Economics electives
3. MATH 1613

## Double Major in Economics

Students who wish to complete a degree in Economics with a second major in Business or Mathematics should consult the specific program requirements below. All other students should follow the Major requirements above. Arts subjects that are particularly suited to a double-major program with economics include Politics, Philosophy, Sociology, History, English or a foreign language.

## Honours in Economics with Business Administration

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts with Honours requirements outlined in the previous section of this calendar. All Economics courses presented for an Honours program in Economics must be completed with a minimum grade of B-.

## Program Requirements

Honours in Economics with Business Administration is attained through either a thesisbased or course-based program of study. Regardless of which route a student chooses, a minimum of 51 h must be completed in the Economics program and 42 h in the Business program as follows:

Thesis-based Honours:

1. All of the following: BUSI 1013, BUSI 1703, BUSI 2013, BUSI 2223, BUSI 2233, BUSI 2423, BUSI 2433, BUSI 2513, BUSI 2733, BUSI 2743, BUSI 2803, BUSI 3063, ECON 1013, ECON 1023, ECON 2113, ECON 2213, ECON 2613, ECON 2623, ECON 3113, ECON 3123, ECON 4996
2. 18h Economics electives
3. 6 h Business electives
4. MATH 1613

## Course-Based Honours

1. All of the following: BUSI 1013, BUSI 1703, BUSI 2013, BUSI 2223, BUSI 2233 , BUSI 2423, BUSI 2433, BUSI 2513, BUSI 2733, BUSI 2743, BUSI 2803, BUSI 3063, ECON 1013, ECON 1023, ECON 2113, ECON 2213, ECON 2613, ECON 2623, ECON 3113, ECON 3123, ECON 4033, ECON 4043, ECON 4613, ECON 4623
2. 12 h Economics electives
3. 6 h Business electives
4. MATH 1613

## Major in Economics with Business Administration

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Major) requirements outlined in the previous section of this calendar. All Economics courses presented for the Major program in Economics must be completed with a minimum grade of C-

## Program Requirements

Students must complete a minimum of 45 h in the Economics program and 42 h in the Business program as follows:

1. All of the following: BUSI 1013, BUSI 1703, BUSI 2013, BUSI 2733, BUSI 2743, BUSI 2803, BUSI 2223, BUSI 2233, BUSI 2423, BUSI 2433, BUSI 2513 , BUSI 3063, ECON 1013, ECON 1023, ECON 2113, ECON 2213, ECON 2613, ECON 3113, ECON 3123, MATH 1613
2. 21 h Economics electives
3. 6 h Business electives

## Major in Economics with Mathematics

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Major) requirements outlined in the previous section of this calendar. All Economics courses presented for an Honours program in Economics must be completed with a minimum grade of C -.

## Program Requirements

Students must complete a minimum of 45 h in the Economics program and 36 h in the Mathematics program as follows:

1. All of the following: ECON 1013, ECON 1023, ECON 2113, ECON 2213, ECON 2613, ECON 3113, ECON 3123, MATH 1013, MATH 1023, MATH 1323, MATH 2013, MATH 2023, MATH 2213, MATH 2223, MATH 2313, MATH 3233
2. 24 h Economics electives
3. 9 h Mathematics courses at the 3000/4000 level subject to approval by the Department of Mathematics and Statistics and by the Department of Economics

## Minor in Economics

The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a minor in Economics are required to complete a minimum of 12 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

## Education

School of Education; Seminary House and Emmerson Hall
Ph: (902) 585-1229; Fax: (902) 585-1071; infoed@ acadiau.ca
Undergraduate Program(s) Offered: Bachelor of Education (BEd)
The School of Education prepares students for professional teaching service in elementary and secondary schools. Acadia's Bachelor of Education program has four distinct features:

1. Preparation for leadership and excellence in teaching in educational settings which reflect the increasingly diverse nature of the public school population.
2. Integration of information technology within the curriculum.
3. Supervised field experience with opportunity for an international practicum placement.
4. Options for completing the program in two academic years or 16 consecutive months.

Admission - In keeping with our commitment to acknowledging the diversity of the school population, we encourage applications from racial, ethnic, cultural or other communities that are underrepresented in the teaching profession.

## Teacher Certification

The Nova Scotia Education Act requires that any person employed as a public school teacher hold a teacher's certificate issued by the provincial Department of Education. Sole authority to issue such teaching certificates rests with the Department of Education. A degree or a transcript of credit from a university is not a certificate or authority to teach in Nova Scotia. The Acadia Bachelor of Education degree normally results in the awarding of an Initial Teaching Certificate by the Nova Scotia Department of Education. Other programs lead to certification advancement in accordance with Department of Education regulations. Some certification requirements refer to academic work done prior to
beginning the BEd program. For the most up-to-date requirements, consult the Registrar of Teacher Certification at the Nova Scotia Department of Education.

BEd programs cannot be taken through part-time study and must be completed within three years of initial registration.

For further detailed information on admission please visit the website:
http://education.acadiau.ca/programs/undergraduate/under_admissions.html

## Bachelor of Education (Elementary Education)

## Graduation Requirements

In addition to the Program Requirements listed below, students must achieve a minimum CGPA of 2.67 and have no course grades of less than C-.

## Program Requirements

Students must complete 60 credit hours as follows:

1. EDUC 4003, EDUC 40A3, EDUC 40B3, EDUC 4053, EDUC 41F3, EDUC 4133, EDUC 4153, EDUC 4173, EDUC 4233, EDUC 4243, EDUC 4263, EDUC 4303, EDUC 4333, EDUC 4433, EDUC 4503, EDUC 4923, EDUC 4933, EDUC 42E3
2. 6h approved electives

- Students who have previously taken a course equivalent to EDUC 4053 are not required to take this course and will take an additional 3 h in approved electives.
- EDUC 4683 is required for international field experience placement as a prerequisite for EDUC 4673 and EDUC 4863.


## Bachelor of Education (Secondary Education) <br> Graduation Requirements

In addition to the Program Requirements listed below, students must achieve a minimum
CGPA of 2.67 and have no course grades of less than C-.

## Program Requirements

Students must complete 60 credit hours as follows:

1. EDUC 4003, EDUC 40A3, EDUC 4053, EDUC 41F3, EDUC 4203, EDUC 4263, EDUC 4333, EDUC 4433, EDUC 4503, EDUC 4923, EDUC 4933, EDUC 42D3,
2. 12 h approved electives.
3. All secondary education students must take two of the following combinations of courses: two methods courses in their first and second teachable areas as follows:
a) Social Studies - EDUC 4113 and EDUC 4613
b) Science - EDUC 4143 and EDUC 4643
c) Mathematics - EDUC 4183 and EDUC 40 C 3 or EDUC 4783
d) English - EDUC 4353 and EDUC 4753
e) French - EDUC 4103 and EDUC 4793
f) Physical Education - KINE 3143 or EDUC 4313 and EDUC 4703.

- Students who have previously taken a course equivalent to EDUC 4053 are not required to take this course and will take an additional 3 h in approved electives.
- EDUC 4683 is required for international student teaching placement, as a prerequisite for EDUC 4863 and EDUC 4673.
- Technology Education requires three methods courses: EDUC 4573, EDUC 4583, EDUC 4593. Depending on students' backgrounds they may also be required to take content based courses (EDUC 41A3, EDUC 41B3, EDUC 41C3).
- Music Education requires EDUC 4653 and EDUC 4663.
- Secondary students with two teachables in one discipline must consult with the School of Education for course registration.


## Integrated BSc/BEd Programs

The School of Education offers integrated BSc/BEd programs in cooperation with the Department of Mathematics and Statistics. These programs are five years in duration and are intended for undergraduate students who decide early in their academic program that they wish to pursue teaching. Students apply to the program during their first year of study. Students will be admitted to the integrated program on successful completion of Year 1. Student qualifications are reviewed on completion of Year 3, and continued in the BEd portion of the program will be contingent on this review. Please see the Mathematics and Statistics section of this calendar for integrated program requirements.

## TESOL Certificate Program

(Teaching English to Speakers of Other Languages)
This program is designed for both prospective English language teachers interested in working in the ESL field, as well as practicing teachers who wish to upgrade their skills and qualifications. The coursework in the certificate is made up of three 3 credit-hour courses offered by the School of Education. EDUC 4673, 4683, 4863. Students must also complete a non-credit practicum to satisfy the requirements of the certificate. The certificate qualifies applicants to apply for TESL Canada Standard 1 Professional Certification. The three courses are available both on campus during the academic year, or by online learning.

## Course Completion Policy

When circumstances warrant, individual faculty members may grant students extensions on course assignments. However, the maximum time allowed for submission of overdue assignments will be 30 days past the last day of the school term (for BEd students, this means 30 days after the last day of practicum). Faculty will submit the grade earned by the student in the course by the appropriate deadline set by the Registrar each term and, if necessary, complete a mark change upon evaluation of any assignments students complete through contracted extensions.

Students who fall into any one of the following categories may not be permitted to proceed/continue in their teaching practicum following a coursework term. Students who:

1. fail to complete and submit their coursework before the beginning of the ensuing practicum
2. fail a course in the BEd curriculum
3. are found to be unprofessional according to the School of Education Professional Conduct Manual and NSTU Code of Ethics
4. failure in any two courses (including field placement courses) in the BEd program will result in dismissal from the program.

## Certificate in Math Teaching

The purpose of the certificate program is primarily professional development for teachers assigned to or interested in teaching math in grades $4-9$. This 30 credit-hour post - BEd program will be offered on a part-time basis through a combination of intersession courses, evening courses, and online delivery courses. The first six courses (18 credit hours) include undergraduate mathematics courses focusing on key topics in middle-years mathematics curriculum. The final four courses ( 12 credit hours) include graduate education courses in pedagogy, curriculum practice and instructional design, and assessment, all focused on these elements as applied to mathematics teaching. This is a 30 credit hour program ( 10 courses) to be offered on a part-time basis. Typically, this roll-out involves 2 late intersession (summer courses), and one course in each of the other academic semesters (fall, winter, early intersession [spring]). The certificate would require two years or slightly under (allowing for transfer-in courses) to complete.

The following courses are required for the certificate:

1. All of the following (18h): MATH 1533, MATH 1543, MATH 1553, MATH 1563 , MATH 1573, MATH 1583.
2. All of the following (9h): EDUC 5673, EDUC 5843, EDUC 5303
3. 3 h from: EDUC 5053 or EDUC 5153

## English

Department of English and Theatre; Beveridge Arts Centre, Rm 415
Tel: (902) 585-1502; english.theatre@acadiau.ca
The discipline of English trains students to analyze, develop an argument, and polish writing and speaking skills.

The department offers a wide selection of courses in the literatures of Canada, Great Britain, the United States, and other English-speaking countries. It also offers a series of courses on creative writing. Those who intend to teach, enter professional schools, and proceed to graduate studies will find the Honours program especially valuable.

Programs Offered: Bachelor of Arts with Honours (BAH), Bachelor of Arts with Major (BA), Minor

## The English Core

All programs in English require students to complete 30 credits as follows:

1. 6h from: ENGL 1406 or ENGL 1413 and ENGL 1423
2. ENGL 2006
3. 3h from: ENGL 2163, ENGL 2173, ENGL 2273
4. 3h from: ENGL 2286 (ENGL 2183/ ENGL 2193), ENGL 3283, ENGL 3293
5. 3h from: ENGL 2283, ENGL 2383, ENGL 2393, ENGL 2773
6. 3h from: ENGL 2386, ENGL 2476, ENGL 3483, ENGL 2783
7. 3h from: ENGL 2563, ENGL 2573, ENGL 2683, ENGL 2693, ENGL 3833, ENGL 3843
8. 3h from: ENGL 3663, ENGL 3773, ENGL 3793, ENGL 3673, ENGL 3683, ENGL 3693

- The extra 3h in a 6 h course will be subsumed in the 18 h of English at the 2000/3000/4000 level.


## Honours in English

Graduation Requirements
In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts with Honours requirements outlined in the previous section of this calendar.

## Program Requirements

Honours in English is attained through either a thesis-based or course-based program of study. Regardless of which route a student chooses, a minimum of 60 h must be completed in the Honours program as follows:

## Thesis-based Honours

1. The English Core (30h)
2. 3h from ENGL 3073, or WGST 3023
3. ENGL 4996 and ENGL 4060
4. 21h of English courses at the 2000/3000/4000 level (of which 6 hours must be 4000-level seminar courses exclusive of ENGL 4060 and ENGL 4996)

Course-based Honours

1. The English Core (30h)
2. 3 h from ENGL 3073, or WGST 3023
3. ENGL 4060
4. 27 h of English courses at the 2000/3000/4000 level (of which 12 hours must be 4000-level seminar courses exclusive of ENGL 4060)

## Major in English

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 48 h in the Major Program as follows:

1. The English Core (3oh)
2. 18h of English at the 2000/3000/4000-levels.

## Minor in English

The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a minor in English are required to complete a minimum of 12 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

## Cross-Listed Courses

The following courses may be counted towards credit in English: CLAS 2573, CLAS 3573, IDST 2433, IDST 2453, THEA 2803, THEA 2813, THEA 2883, THEA 2893, THEA 3133, THEA 3243, THEA 3883, THEA 3893, THEA 3923, THEA 3973, THEA 4833, THEA 4843, WGST 3023.

## Environmental \& Sustainability Studies

Office of the Dean of Arts; Beveridge Arts Centre, Room 224
Coordinator: Dr. David Duke (david.duke@acadiau.ca)
The Environmental and Sustainability Studies (ESST) interdisciplinary program develops environmental leaders, managers, and professionals who are critical and insightful thinkers as well as creative problem solvers skilled in leading transformational change toward a more sustainable and just society.

Programs Offered: Bachelor of Arts with Honours (BAH), Bachelor of Arts with Major (BA)

## ESST CONCENTRATION AREAS

## Innovation and Entrepreneurship for Sustainability

Focus is on gaining knowledge and skill to help shift businesses and organizations toward sustainability in areas such as organizational development and training, procurement, and policy development. Courses include: BUSI 1703, BUSI 2733, BUSI 3753, BUSI 3773, BUSI 4553, BUSI 4613, BUSI 4633, CODE 2033, CODE 3523, CODE 3603, ECON 2713, ECON 3313, EDUC 42A3, EDUC 42B3, ESST 2013, ESST 3503, ESST 3513, ESST 3523, ENVS 3113, ENVS 3423, HIST 2283, IDST 2213, IDST 2706, PHIL 2303.

## Environmental Advocacy, Education \& Activism

Focus is on gaining knowledge and skills to help shift social, political and educational structures and processes toward sustainability. Work and policy analysis is at multiple levels: local, regional, national, international. Courses include: BUSI 2763, BUSI 4633, CREL 2413, CODE 2033, CODE 3523, CODE 3563, CODE 3603, ECON 2713, ECON 3713, EDUC 42A3, EDUC 42B3, ENVS 3423, ENVS 3503, ESST 3503, ESST 3513, ESST 3523, HIST 2283, HIST 3383, IDST 2213, PHIL 2303, POLS 2113, POLS 3213, POLS 3483, POLS 3543, POLS 3883, POLS 4603, POLS 4843, SOCI 2413, SOCI 2563, SOCI 3223, SOCI 3633, WGST 2913.

## Environmental Thought and Practice

Focus is on the evolution and development of sustainability concepts from multiple perspectives across time. Attention is paid to critical and philosophical perspectives of the implementation of sustainability in thought and practice. Courses include: BUSI 2763, BUSI 4633, CODE 2033, CODE 3013, CODE 3543, CODE 3563, CREL 2413, ECON 2713, EDUC 42A3, EDUC 3523, EDUC 3533, ENVS 1643, ENVS 3113, ENVS 3313, ESST 2013, ESST 3503, ESST 3513, ESST 3523, HIST 2283, HIST 3383, POLS 2113, POLS 3213, POLS 3483, POLS 3543, POLS 3883, POLS 4843, SOCI 3223, WGST 2913.

## Sustainable Community Development

Focus is on gaining knowledge and skill to help shift individual lifestyles and communities toward sustainability in areas such as consumer education and community planning. Courses include: BIOL 3363 , BIOL 4423, BUSI 2733, BUSI 2763, BUSI 3723, BUSI 3753, BUSI 3773, CODE 1533, CODE 3013, CODE 3603, CODE 3523, CODE 3563, CODE 4523, ECON 2713, ENVS 1643, ENVS 3423, ESST 2013, ESST 3503, ESST 3513, ESST 3523, HIST 2283, HIST 3383, NUTR 2323, PHIL 2303, POLS 3213, POLS 3483, POLS 3543, POLS 4603, POLS 4843, SOCI 2413, SOCI 2563, SOCI 3633.

## ENVIRONMENTAL AND SUSTAINABILITY STUDIES CORE

All students must complete the following courses as part of any degree program in ESST:
CODE 1023, ESST 1003, ESST 1023, ESST 2003, ESST 3003, ESST 4003 It is recommended, but not required, that students pursuing a major in Environmental and Sustainability Studies be exposed to science that is related to the environment. Students may wish to fill their Arts Core science requirements with one or more of these recommended courses, or incorporate them into their program as part of their minor requirements or as university electives. Recommended courses include: CHEM 1013, CHEM 1023, CHEM 1053; ENVS 1023; GEOL 1013, GEOL 1023, GEOL 1033, GEOL 1073, GEOL 2703, GEOL 2753; PHYS 1053, PHYS 1063.

## HONOURS IN ENVIRONMENTAL AND SUSTAINABILITY STUDIES

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts with Honours requirements outlined in the previous section of this calendar. A minimum program GPA of 3.0 is required to declare Honours and to graduate with the Honours degree and each course offered towards the Honours program in ESST must be completed with a minimum grade of B-.

## Program Requirements

Students must complete a minimum of 54 h in the Honours program. All students must complete \#1 \& 2 below as well as the courses required in one of the Concentrations outlined below.

1. Environmental and Sustainability Studies Core (18h)
2. ESST 4996

## CONCENTRATION IN INNOVATION AND ENTREPRENEURSHIP FOR SUSTAINABILITY

3. BUSI 2763
4. 12 h from: Innovation and Entrepreneurship for Sustainability area with a minimum of 9 h of selected from courses at the 3000/4000-level
5. 15 h selected from any ESST Concentration area, with a minimum of 3 h selected from courses at the 3000/4000 level

## CONCENTRATION IN ENVIRONMENTAL ADVOCACY, EDUCATION, AND ACTIVISM

3. ESST 2013
4. 12 h from: Environmental Advocacy, Education and Activism area with a minimum of 9 h of selected from courses at the 3000/4000-level
5. 15 h selected from any ESST Concentration area, with a minimum of 3 h selected from courses at the 3000/4000 level

## CONCENTRATION IN ENVIRONMENTAL THOUGHT AND PRACTICE

3. PHIL 2303
4. 12 h from: Concentration in Environmental Thought and Practice, with a minimum of 9 h selected from courses at 3000/4000-level
5. 15 h selected from other ESST Concentration area, with a minimum of 3 h selected from courses at the 3000/4000 level

## CONCENTRATION IN SUSTAINABLE COMMUNITY DEVELOPMENT

3. CODE 2033
4. 12 h from: Concentration in Sustainable Community Development area with a minimum of 9 h of selected from courses at the 3000/4000-level
5. 15 h selected from any ESST Concentration area, with a minimum of 3 h selected from courses at the 3000/4000 level

## MAJOR IN ENVIRONMENTAL AND SUSTAINABILITY STUDIES

Graduation Requirements
In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 42 h in the ESST program. All students must complete \#1 below as well as the courses required in one of the Concentrations outlined below.

1. Environmental and Sustainability Studies Core (18h)

## CONCENTRATION IN INNOVATION AND ENTREPRENEURSHIP FOR SUSTAINABILITY

2. BUSI 2763
3. 12 h from: Innovation and Entrepreneurship for Sustainability area with a minimum of 9 h selected from courses at the 3000/4000 level
4. 9 h selected from any ESST Concentration areas, with a minimum of 3 h selected from courses at the 3000/4000 level

## CONCENTRATION IN ENVIRONMENTAL ADVOCACY, EDUCATION, AND ACTIVISM

2. ESST 2013
3. 12h from: Environmental Advocacy, Education, and Activism area with a minimum of 9 h selected from courses at the 3000/4000 level
4. 9 h selected from any ESST Concentration area, with a minimum of 3 h selected from courses at the 3000/4000 level

## CONCENTRATION IN ENVIRONMENTAL THOUGHT AND PRACTICE

2. PHIL 2303
3. 12 h from: Environmental Thought and Practice area with a minimum of 9 h selected from courses at the 3000/4000 level
4. 9h selected from any ESST Concentration area, with a minimum of 3 h selected from courses at the 3000/4000 level

## CONCENTRATION IN SUSTAINABLE COMMUNITY DEVELOPMENT

2. CODE 2033
3. 12 h from: Sustainable Community Development area with a minimum of 9 h selected from courses at the 3000/4000 level
4. 9 h selected from any ESST Concentration area, with a minimum of 3 h selected from courses at the 3000/4000 level

## ENVIRONMENTAL GEOSCIENCE

Department of Earth and Environmental Science; Huggins Science Hall, Room 327
Ph: (902) 585-1208; http://ees.acadiau.ca/
Programs Offered: Bachelor of Science with Honours (BScH), Bachelor of Science with Major (BSc)

## Field Methods and Field School

Every Environmental Geoscience Major is required to participate in GEOL 2083 (Field Methods), given after spring examinations after GEOL 1013, GEOL 1023, GEOL 2133 and GEOL 2043 have been completed with C- grades or better. GEOL 4083 (Advanced Field School) is held for about twelve days preceding and continuing into the fall term; GEOL 4303 (Carbonate Sedimentology Field School) is held after exams in winter term.

## ENVIRONMENTAL GEOSCIENCE CORE

The Honours and Majors programs in Environmental Geoscience require students to complete 48 h in the following core courses:

1. All of the following: GEOL 1013, GEOL 1023, GEOL 2043, GEOL 2083, GEOL 2133, GEOL 2213, GEOL 2703, GEOL 3103, GEOL 3603, GEOL 3723, GEOL 3823, ENVS 1013, ENVS 1023, ENVS 3113, ENVS 3423
2. 3 h from: GEOL 3303 or GEOL 3323

## HONOURS IN ENVIRONMENTAL GEOSCIENCE

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science with Honours requirements outlined in the previous section of this calendar. Participation in departmental seminars is required.

## Program Requirements

Students must complete a minimum of 93 h in the Honours Program as follows:

1. The Environmental Geoscience core
2. GEOL 4996
3. 9 h GEOL courses (or prescribed cognate courses each completed with a minimum grade of B-. Cognate courses are BIOL 3033, CHEM 2853 and ENVS 4613)
4. CHEM 1013 and CHEM 1023
5. 6h in MATH courses
6. PHYS1053 and PHYS 1063 (or equivalent, with lab)
7. BIOL 1113 and BIOL 1123
8. 6h of courses from CHEM, MATH, PHYS, BIOL or ENVS

- The Honours program is career-oriented and preparatory to graduate study in environmental geoscience. It is needed for registration as a professional environmental geoscientist.


## MAJOR IN ENVIRONMENTAL GEOSCIENCE

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science (Major) requirements outlined in the previous section of this calendar. In addition, no more than 3h non-lab Geology courses at the 1000/2000-level may be offered towards the Major.

## Program Requirements

Students must complete a minimum of 87h in the Major Program as follows:

1. The Environmental Geoscience Core
2. 9 h GEOL courses (or prescribed cognate courses each completed with a minimum grade of C-. Cognate courses are BIOL 3033, CHEM 2853, and ENVS 4613)
3. CHEM 1013 and CHEM 1023
4. 6h in MATH
5. PHYS 1053 and PHYS 1063 (or equivalent, with lab)
6. BIOL 1113 and BIOL 1123
7. 6h of courses from CHEM, MATH, PHYS, BIOL or ENVS

## ENVIRONMENTAL SCIENCE

Department of Earth and Environmental Science; Huggins Science Hall, Room 327
Ph: (902) 585-1208; http://ees.acadiau.ca/
Programs Offered: Bachelor of Science with Honours (BScH), Bachelor of Science with Major (BSc), Minor

## HONOURS IN ENVIRONMENTAL SCIENCE

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science with Honours requirements outlined in the previous section of this calendar. A program GPA of 3.0 or better is required for graduation. In addition, 48 h of courses offered to fulfill requirements 1-6 outlined below must be completed with a minimum grade of B -.

## Program Requirements

Students must complete $90 h$ in the Honours Program as follows:

1. All of the following: BIOL 1113, BIOL 1123, BIOL 2053, BIOL 3033, CHEM 2513 , ENVS 1013, ENVS 1023, ENVS 3423, ENVS 2523 (or an approved alternative field course), ENVS 4613, ENVS 4423, ENVS 4996, GEOL 1013, GEOL 1023, GEOL 2703
2. 3 h from Biology at or above the 3000-level
3. 3 h from: ENVS 3113, HIST 2283, ESST 2013, POLS 3213
4. 6h from: CHEM 1013/CHEM 1023 or CHEM 1113/CHEM 1123
5. 3h from: CHEM 2813 or CHEM 2853
6. 6h from: GEOL 2043, GEOL 2133, GEOL 2753 GEOL 3723
7. 9h from: advanced-level science courses, HIST 2283, ESST 2013, POLS 3213, POLS 3883 and POLS 4843, chosen on an individual basis by consultation with the Department
8. 6h from: MATH 2233/MATH2243 or MATH2213/MATH 2223
9. 6h from: PHYS 1013/PHYS1023 or PHYS 1053/PHYS 1063

## MAJOR IN ENVIRONMENTAL SCIENCE

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science (Major) requirements outlined in the previous section of this calendar. A program GPA of 2.0 or better is required for graduation. In addition, 48 h of courses offered to fulfill requirements 1-6 outlined below must be completed with a minimum grade of C -

## Program Requirements

Students must complete 120 credit hours including 87 h in the Major Program as follows:

1. BIOL 1113, BIOL 1123, BIOL 2053, BIOL 3033, CHEM 2513, ENVS 1013, ENVS 1023, ENVS 3423, ENVS 2523 (or an approved alternative field course), ENVS 4613, ENVS 4423, GEOL 1013, GEOL 1023, GEOL 2703
2. 3h Biology at or above the 3000 level
3. 6h from: CHEM 1013/CHEM 1023 or CHEM 1113/CHEM 1123
4. 3h from: CHEM 2813 or CHEM 2853
5. 3h from: ENVS 3113, HIST 2283, ESST 2013, POLS 3213
6. 6h from: GEOL 2043, GEOL 2133, GEOL 2753, GEOL 3723
7. 12h additional from advanced-level science courses, HIST 2283, ESST 2013, POLS 3213, POLS 3883 and POLS 4843, chosen on an individual basis by consultation with the Department
8. 6h from: MATH 2233/MATH 2243 or MATH 2213/MATH 2223
9. 6h from: PHYS1013/PHYS 1023 or PHYS 1053/PHYS 1063

- 72 h , including 48 h of courses offered to fulfill science requirements 1-6 must be completed with a grade of C - or better.
- A minimum program GPA of 2 is required to be eligible to graduate


## DOUBLE MAJOR: ENVIRONMENTAL SCIENCE AS SECOND MAJOR

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science (Double Major) requirements outlined in the previous section of this calendar. A program GPA of 2.0 or better is required for graduation.

## Program Requirements

Students must complete a minimum of 30 h in Environmental Science as follows:

1. 12 hours from ENVS
2. 18 hours from two of BIOL, GEOL, or CHEM

## MINOR IN ENVIRONMENTAL SCIENCE

The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a minor are required to complete a minimum of 12 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

## ENVIRONMENTAL STUDIES

Office of the Dean of Arts; Beveridge Arts Centre, Room 224
Coordinator: Dr. Donna Seamone (donna.seamone@acadiau.ca)
Program Offered: Minor

## MINOR IN ENVIRONMENTAL STUDIES

Multidisciplinary minors offer an alternative to completing the minor requirements for a degree program in a single discipline. The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a multidisciplinary minor are required to complete a minimum of 18 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

There are no prescribed required courses for the minor in Environmental Studies. Students who wish to complete this minor are required to present the minimum number of credit hours to satisfy minor requirements in their program of study. No more than 12 h of the minor in Environmental Studies can be in a single discipline. All courses offered towards this minor must be completed with a grade of C - or better.

## Cross-Listed Courses

The following courses may be counted as credit in Environmental Studies: BIOL 2033, CREL 2413, ECON 2713, ECON 3713, ECON 4183, ENGL 3523, ENGL 3533, ENVS 1643, ENVS 3113, ENVS 3313, HIST 2283, HIST 3383, IDST 3103, PHIL 2303, POLS 3883 , POLS 3213, POLS 4843, RECR 1163, RECR 1223, RECR 3563, RECR 4263, SOCI 3223.

## ETHNOCULTURAL DIVERSITY STUDIES

Office of the Dean of Arts; Beveridge Arts Centre, Room 224
Coordinator: Dr. Jamie Whidden (jamie.whidden@acadiau.ca)
Program(s) Offered: Minor

## MINOR IN ETHNOCULTURAL DIVERSITY STUDIES

Multidisciplinary minors offer an alternative to completing the minor requirements for a degree program in a single discipline. The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a multidisciplinary minor are required to complete a minimum of 18 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

A Minor in Ethnocultural Diversity Studies requires the completion of at least 6h chosen from CREL 1206, IDST 1213, IDST 1223, SOCI 1023, SOCI 1113 with the balance of the minor courses being chosen from the list below. All courses offered towards this minor must be completed with a grade of C - or better.

## Cross-Listed Courses

The following courses count towards the minor in Ethnocultural Diversity Studies: CREL 1206, CREL 2443, ENGL 3663, ENGL 3673, ENGL 3683, ENGL 3693, HIST 2073, HIST 2303, HIST 2583, HIST 2603, HIST 2733, HIST 3423, HIST 3453, HIST 3613, FRAN 3513, IDST 1213, IDST 1223, MUSI 2063, POLS 1403, POLS 2706, POLS 3303, POLS 3483, POLS 3513, SOCI 1023, SOCI 1113, SOCI 2113, SOCI 2123, SOCI 2153, SOCI 2413, SOCI 2533, SOCI 2853, SOCI 3133, SOCI 3373, SOCI 3453, WGST 4913.

## FRENCH STUDIES/ÉTUDES FRANÇAISES

Department of Languages and Literatures; Beveridge Arts Centre, Room 333 Ph: (902) 585-1500; Fax: (902) 585-1070; http://languages.acadiau.ca/

Programs Offered: Bachelor of Arts with Honours (BAH), Bachelor of Arts with Major (BA), Minor, Certificate of French Proficiency

## HONOURS IN FRENCH

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts with Honours requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 54 h in the Honours program as follows:

1. FRAN 2013, FRAN 2023, FRAN 2113, FRAN 2123, FRAN 4103, FRAN 4996
2. 3h from: FRAN 2713 or FRAN 3733
3. 3 h from: FRAN 3323, FRAN 3513, FRAN 3523, FRAN 3633, FRAN 3643, FRAN 4613 (Canadian)
4. 3 h from FRAN 3133, FRAN 3203, FRAN 3213, FRAN 3443, FRAN 3703, FRAN 4553, FRAN 4713, FRAN 4823, FRAN 4833, FRAN 4913, FRAN 4923 (Fr. Lit.)
5. 3h from: FRAN 2033, FRAN 3013, FRAN 3023, FRAN 3743, FRAN 4003 (Adv. Lang.)
6. 6h FRAN courses at the 4000 level
7. 9h FRAN courses at the 3000/4000 level
8. 6 h chosen in consultation with the department

## MAJOR IN FRENCH

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 45h in the Major program as follows:

1. FRAN 2013, FRAN 2023, FRAN 2113, FRAN 2123
2. 3h from: FRAN 2713 or FRAN 3733
3. 3 h from: FRAN 3323, FRAN 3513, FRAN 3523, FRAN 3633, FRAN 3643, FRAN 4613 (Canadian)
4. 3 h from: FRAN 3133, FRAN 3203, FRAN 3213, FRAN 3443, FRAN 3703, FRAN 4553, FRAN 4713, FRAN 4823, FRAN 4833, FRAN 4913, FRAN 4923 (Fr. Lit.)
5. 3h from FRAN 2033, FRAN 3013, FRAN 3023, FRAN 3743, FRAN 4003 (Adv. Lang.)
6. 6h FRAN at the 4000 level
7. 9h FRAN at the 3000/4000 level
8. 6 h chosen in consultation with the department

## DOUBLE MAJOR IN FRENCH

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Double Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 42h in the Major program as follows:

1. FRAN 2013, FRAN 2023, FRAN 2113, FRAN 2123
2. 3 h from: FRAN 2713 or FRAN 3733
3. 3 h from: FRAN 3323, FRAN 3513, FRAN 3523, FRAN 3633, FRAN 3643, FRAN 4613 (Canadian)
4. 3 h from: FRAN 3133, FRAN 3203, FRAN 3213, FRAN 3353, FRAN 3443, FRAN 3703, FRAN 4553, FRAN 4713, FRAN 4823, FRAN 4833, FRAN 4913, FRAN 4923 (Fr. Lit.)
5. 3h from: FRAN 2033, FRAN 3013, FRAN 3023, FRAN 3743, FRAN 4003 (Adv. Lang.)
6. 6h FRAN at the 4000 level
7. 6h FRAN at the 3000/4000 level
8. 6 h chosen in consultation with the department

Note: Some courses have been designed with specific double major programs in mind, although they are open to all qualified students. This is particularly the case with FRAN 2033 (Français scientifique).

Students with a keen interest in languages who already possess strong skills in French, German, or Spanish may wish to consider pursuing a major in one language with a double minor in the other two. Please note that it is only possible to meet the requirements for this combination within four years if an appropriate choice of credits is made from the beginning of the first year. You should consult as early as possible with a member of the Department of Languages and Literatures if you are considering this course of study.

## PROGRAM OF PROFICIENCY IN FRENCH

The goal of this program is for Acadia undergraduates to acquire a functional command of French by upgrading the four basic language skills over a four-year period. The program normally consists of 21h of French courses: FRAN 2013, FRAN 2023, FRAN 2713 or FRAN 3733, FRAN 2153, FRAN 2163, and FRAN 3153, FRAN 3163. In cases where advanced students are placed directly into FRAN 3153/ FRAN 3163, the requirement to take FRAN 2153/ FRAN 2163 will be waived. An external, internationally recognized examination follows the termination of the last course in the sequence. A maximum of 6 h may be transferred from another program.

## CERTIFICATE OF FRENCH PROFICIENCY (WITH AN OPTION FOR FRENCH TEACHERS)

Students must complete a minimum of $30 h$. Students entering the program will take a placement test to determine the level of entry. In exceptional cases, students with little or no knowledge of French may be placed in FRAN 1113, FRAN 1123 (true beginners), but must in this case complete 39 credit hours (1113, 1123, and 1213). Advanced students will receive permission to substitute higher-level courses for certain requirements; however, all students must complete FRAN 3733 to achieve the Certificate.

Required:
FRAN 1223, FRAN 2013, FRAN 2023, FRAN 2163, FRAN 2713, FRAN 3153, FRAN 3733, FRAN 4403 or FRAN 4413 and two electives from the list below.

Electives:
FRAN 2033, FRAN 3163, FRAN 3213, FRAN 3513, FRAN 3523, FRAN 3633, FRAN 3703, FRAN 3743, FRAN 4003, FRAN 4413, FRAN 4423, FRAN 4553

- FRAN 4403 or FRAN 4413 is required for French teachers. Students in the general proficiency program may substitute 3 h of electives.
- Students are required to take an external, internationally recognized examination (the Test de connaissance du français) which assesses the four language skills, following termination of the last course in the sequence.
- Up to 12 hours of credit may be transferred from other programs. All courses must be completed with a minimum grade of C - and students must obtain a minimum global score of B1 on the TCF to earn the certificate.
- When offered through the Acadia French Summer Institute, these courses are not open to undergraduates.


## International Exchanges at a French-Language University

It is strongly recommended that major, honours, and double major students spend the third year of the four-year program in a French-speaking university, in Québec or in France. Students may take part in a direct exchange program at the Université François Rabelais de Tours (France) and spend two semesters studying full-time in Tours (France). Double major BBA/French students participate in a specific exchange program with Groupe ICN, a highly competitive school affiliated with the Université de Nancy (France), where they may obtain a DIM (Diplôme International de Management). Other options, however, are available for business students on an ad hoc basis. The French section will help students wishing to study elsewhere make the necessary arrangements. For Englishspeaking students intending to study in a French-language Canadian university (and especially in the case of immersion programs) government grants may be available (see Immersion Courses below).

Existing exchange agreements with the universities of Poitiers and Rouen in France make available two lecteur/lectrice positions per year for graduating students. These salaried positions provide a unique opportunity for well-qualified graduating students to enhance their formal academic training by spending a year working in France as a teaching assistant, gaining valuable first-hand experience of French life and culture.

## Immersion Courses

In the case of spring and summer immersion programs, 6 h of elective arts credit may be granted by Acadia. These elective credits may in some cases be used to satisfy the arts core requirement. Please check with the French section for further information. Applications for bursaries normally have to be submitted to the provincial Department of Education by February 15th of each year.

## GEOLOGY

Department of Earth and Environmental Science; Huggins Science Hall, Room 327
Ph: (902) 585-1208; Fax: (902) 585-1816; ees @ acadiau.ca
Program(s) Offered: Bachelor of Science with Honours (BScH), Bachelor of Science with Major (BSc), Second Major, Minor

## Field Methods and Field School

Every Geology Major is required to participate in GEOL 2083 (Field Methods), given after spring examinations after GEOL 1013, GEOL 1023, GEOL 2133 and GEOL 2043 have been completed with C- grades or better. GEOL 4083 (Advanced Field School) is held for about twelve days preceding and continuing into the fall term; GEOL 4303 (Carbonate Sedimentology Field School) is held after exams in winter term.

## GEOLOGY CORE (36h)

1. All of the following: GEOL 1013, GEOL 1023, GEOL 2043, GEOL 2083, GEOL 2133, GEOL 2213, GEOL 2703, GEOL 3603, GEOL 4013
2. 9 h from: GEOL 3303, GEOL 3323, GEOL 3403, GEOL 3503

## HONOURS IN GEOLOGY

## Graduation Requirements

- In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science with Honours requirements outlined in the previous section of this calendar. All courses presented to satisfy requirements 1-3 below must be completed with a minimum grade of B-.


## Program Requirements

Students must complete a minimum of 75h in the Honours Program as follows:

1. The Geology Core (36h)
2. GEOL 4996
3. 15 h of Geology courses (or prescribed cognate courses: BIOL 3033, CHEM 2853, ENVS 3423, and ENVS 4613)
4. CHEM 1013 and CHEM 1023
5. 6h MATH
6. PHYS 1053 and PHYS 1063 (or equivalent with lab)

- Participation in departmental seminars is required. This program leads to postgraduate study in geology and can satisfy requirements for registration in professional bodies.
- Students intending careers in paleontology should offer biology. Computer science courses are recommended to all students.


## MAJOR IN GEOLOGY

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science (Major) requirements outlined in the previous section of this calendar. Also, no more than 3h non-lab geology courses at the 1000/2000-level may be offered towards the Major.

## Program Requirements

Students must complete a minimum of 69 h in the Major Program as follows:

1. The Geology Core
2. 15 h of Geology courses (or prescribed cognate courses, each completed with a minimum grade of B-. Cognate courses are BIOL 3033, CHEM 2853, ENVS 3423 and ENVS 4613
3. CHEM 1013 and CHEM 1023
4. 6h MATH
5. PHYS 1053 and PHYS 1063 (or equivalent with lab)

- This program is both career-oriented and consistent with the concept of a liberal arts education. This program can satisfy requirements for registration in professional bodies.
- Students intending careers in paleontology should offer biology. Computer science courses are recommended to all students.


## DOUBLE MAJOR: GEOLOGY AS FIRST MAJOR

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science (Double Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 54 h for the First Major in Geology as follows:

1. All of the following (21h): GEOL 1013, GEOL 1023, GEOL 2043, GEOL 2083, GEOL 2133, GEOL 2703, GEOL 3603
2. 21h additional Geology courses
3. 6h CHEM
4. 6h MATH

## DOUBLE MAJOR: GEOLOGY AS SECOND MAJOR

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science (Double Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 30 h to complete the Second Major in Geology as follows:

1. All of the following (21h): GEOL 1013, GEOL 1023, GEOL 2043, GEOL 2083, GEOL 2133, GEOL 2703, GEOL 3603
2. 9 h additional Geology courses

## MINOR IN GEOLOGY

The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a minor in Geology are required to complete a minimum of 12 h in the minor
program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

For Geology students, a minor is considered to be (a) any subject outside of the core in which the student has completed 4 courses at least 1 of which must be at the 2000 level or above; or (b) a "general science minor" in which a student has completed at least 9 courses (27h) from BIOL, CHEM, COMP, ENVS, MATH, and PHYS (consisting of the required 6 hours each of CHEM, MATH, and PHYS and 9 hours of any of the above subjects).

## GERMAN STUDIES

Department of Languages and Literatures; Beveridge Arts Centre, Room 333
Ph: (902) 585-1500; Fax: (902) 585-1070; http://languages.acadiau.ca/
Program(s) Offered: Bachelor of Arts with Honours (BAH), Bachelor of Arts with Major (BA), Program of Proficiency in German, Minor in German

The German Studies Program offers students a combination of language, literature and culture courses towards a major or minor degree in German. In their first year students acquire basic communication skills in German. After three years of study students achieve the necessary language skills to fully function in a German-speaking environment.

## International Exchanges at a German-Language University

Students wishing to Major or complete an Honours program in German must successfully complete an approved course of study in Acadia's Year Abroad Program at the University of Freiburg or, in the case of Business students, at the Fachhochschule Bielefeld. The department can supply further information about study in German-speaking countries. The department also sponsors a German "learn and work" program which allows students to spend a summer in a German-speaking country.

## HONOURS IN GERMAN

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts with Honours requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 54 h in the Honours Program as follows:

1. 48 h of German courses
2. GERM 4996

## MAJOR IN GERMAN

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 42 h in the Major Program as follows:

1. A minimum of 42 h in German.

Students with a keen interest in languages who already possess strong skills in French, German, or Spanish may wish to consider pursuing a major in one language with a double minor in the other two. Please note that it is only possible to meet the requirements for this combination within four years if an appropriate choice of credits is made from the
beginning of the first year. You should consult as early as possible with a member of the Department of Languages and Literatures if you are considering this course of study.

## PROGRAM OF PROFICIENCY IN GERMAN

The goal of this program is to provide students with an internationally recognized language certificate in German. Three levels of examination are available:

1. Goethe Zertifikat A1 (level one), Goethe Zertifikat A2 (level 2), on the six-level scale of competence as defined by the Common European Framework of Reference for Languages.
2. Goethe Zertifikat B1 (level three); Goethe Zertifikat B2 (level 4), on the CEFR scale.
3. Test Deutsch als Fremdsprache (B2/C1), the language certification that facilitates university admission and is recognized by every university in Germany.

Proficiency program requirements:

1. All of the following: GERM 1013, GERM 1023, GERM 2013, GERM 2023, GERM 2513, GERM 2523, plus additional courses in consultation with the German Advisor, and a comprehensive examination.

## MINOR IN GERMAN

The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a minor in Biology are required to complete a minimum of 12 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

## Cross-Listed Courses

The following course may be counted towards the major credit in German: IDST 3473

## HISTORY

Department of History and Classics; Beveridge Arts Centre, Room 441
Ph: (902) 585-1504; Fax: (902) 585-1070; history@acadiau.ca
History expands our global perspective through a study of the histories of the peoples and cultures of Europe, the Middle East, Africa and Asia. North America, of course, receives due attention, especially the political and social histories of Canada and the United States. History also offers specialized courses in the history of women, war, medicine, and the environment, and maintains two research centres: the New England Planter Studies Centre and the North East Asia Research Centre.

Programs Offered: Bachelor of Arts with Honours (BAH), Bachelor of Arts with Major (BA), Minor

## HONOURS IN HISTORY

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts with Honours requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 60 h in the Honours Program as follows:

1. 6h of History courses at the 1000-level; HIST 2633, HIST 4903, HIST 4996
2. 18 h of History courses at the $3000-l e v e l$
3. 6 h of History courses at the 4000-level
4. 18h of History courses
5. Fulfill department breadth requirement

## HONOURS IN HISTORY WITH DOUBLE MAJOR

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts with Honours (Double Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 54 h in the Honours program as follows:

1. 6h of History courses at the 1000 -level, HIST 2633, HIST 4903, HIST 4996
2. 18 h of History courses at the $3000-l e v e l$
3. 6 h of History courses at the $4000-l e v e l$
4. 12h of History courses
5. Fulfill department breadth requirement

## MAJOR IN HISTORY

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 48 h in the Major program as follows:

1. 6 h of History courses at the 1000 -level, HIST 2633
2. 18 h at the $3000-l e v e l$
3. 21h of History courses
4. Fulfill department breadth requirement

## DOUBLE MAJOR

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Double Major) requirements outlined in the previous section of this calendar.

## Program Requirements

The requirements for a First and Second Major in History are identical. Students must complete 42 h in the Double Major program as follows:

1. 6 h of History courses at the 1000 -level, HIST 2633
2. 18 h at the $3000-l e v e l$
3. 15 h of History courses
4. Fulfill department breadth requirement

## MINOR IN HISTORY

The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a minor are required to complete a minimum of 12 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

## Department breadth requirement:

Students will be required to take 6 hrs from each of the following three clusters. Courses from the breadth requirement can be used to fulfill program requirements:

North America: HIST 1913, HIST 2263, HIST 2303, HIST 2313, HIST 2343, HIST 2353, HIST 2403, HIST 2463, HIST 2483, HIST 2493, HIST 2503, HIST 2553, HIST 2593, HIST 2603, HIST 2733, HIST 2773, HIST 2783, HIST 3143, HIST 3323, HIST 3343, HIST 3353, HIST 3363, HIST 3373, HIST 3383, HIST 3393, HIST 3403, HIST 3433, HIST 3493, HIST 3533, HIST 3553, HIST 3603, HIST 3613, HIST 3623, HIST 3633, HIST 3653, HIST 3663, HIST 3673, HIST 3683, HIST 4313, HIST 4323, HIST 4343

World: HIST 1413, HIST 1423, HIST 1533, HIST 1613, HIST 1713, HIST 1813, HIST 1823, HIST 2033, HIST 2043, HIST 2073, HIST 2123, HIST 2133, HIST 2243, HIST 2253, HIST 2393, HIST 2533, HIST 2543, HIST 2563, HIST 2743, HIST 2753, HIST 3113, HIST 3133, HIST 3243, HIST 3253, HIST 3263, HIST 3273, HIST 3413, HIST 3416, HIST 3423, HIST 3443, HIST 3453, HIST 3463, HIST 3473, HIST 3483, HIST 3503, HIST 3543, HIST 3563, HIST 3573, HIST 3583, HIST 3593, HIST 3643, HIST 3713, HIST 3723, HIST 3823, HIST 4113, HIST 4173, HIST 4213, HIST 4216, HIST 4223

Thematic: HIST 1713, HIST 1813, HIST 1823, HIST 2003, HIST 2123, HIST 2133, HIST 2203, HIST 2213, HIST 2263, HIST 2283, HIST 2493, HIST 2553, HIST 2603, HIST 2613, HIST 2623, HIST 3143, HIST 3163, HIST 3243, HIST 3283, HIST 3293, HIST 3323, HIST 3383, HIST 3393, HIST 3403, HIST 3493, HIST 3613, HIST 3643, HIST 3683, HIST 3713, HIST 3723, HIST 3733, HIST 4903. WGST 4913

## Cross-Listed Courses

The following courses may be counted towards major credit in History: CLAS 3333, CLAS 3343, CREL 3123, IDST 1113, IDST 1123, IDST 1213, IDST 2503, IDST, 2513, IDST 2813, IDST 2823, WGST 2913, WGST 3503, WGST 4913

## INTERNATIONAL DEVELOPMENT STUDIES

Office of the Dean of Arts; Beveridge Arts Centre, Room 224
Coordinators: Drs. Rachel Brickner (rachel.brickner@acadiau.ca) and James Brittain (james.brittain@acadiau.ca)

Program Offered: Minor

## MINOR IN INTERNATIONAL DEVELOPMENT STUDIES

Multidisciplinary Minors offer an alternative to completing the Minor requirements for a degree program in a single discipline. The requirements for a Minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the Minor program, while BSc students completing a multidisciplinary Minor are required to complete a minimum of 18 h in the Minor program. Students pursuing a Minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

A Minor in International Development Studies requires the completion of:

1. A minimum of 6 h from courses with a regional focus: HIST 2043, HIST 2243, HIST 2253, HIST 2393, HIST 2753, HIST 3423, HIST 3443, HIST 3453, POLS 3693, 4983, SOCI 3043, SPAN 3523
2. 3 from: POLS 4293, POLS 4883, SOCI 4123
3. The balance of the Minor should be chosen from the list of courses below.

- No more than 12 h of the Minor can be in a single discipline. All courses offered towards this minor must be completed with a grade of C - or better.


## Cross-Listed Courses

The following courses may be counted towards the minor in International Development Studies: ECON 3443, ECON 4213, HIST 2043, HIST 2243, HIST 2253, HIST 2393, HIST 2753, HIST 3423, HIST 3443, HIST 3453, IDST 1113, IDST 1123, IDST 2213, IDST 2223, IDST 4186, POLS 2783, POLS 2993, POLS 3183, POLS 3483, POLS 3513, POLS 3593, POLS 3693, POLS 4293, POLS 4883, POLS 4983, SOCI 2113, SOCI 2563, SOCI 3043, SOCI 3133, SOCI 3453, SOCI 3543, SOCI 4123, SPAN 3523, WGST 2913.

## KINESIOLOGY

School of Kinesiology; War Memorial Gymnasium
Ph: (902) 585-1307; Fax: (902) 585-1702; http://kinesiology.acadiau.ca/
Kinesiologists are university graduates who have acquired knowledge about the biophysical, socio-cultural, and psychomotor bases of human movement and physical activity. The Bachelor of Kinesiology degree program at Acadia requires students to complete core courses in each of these sub-disciplines, and to complete complementary courses from the Faculty of Arts and the Faculty of Pure and Applied Sciences. Additionally, the degree program provides an opportunity for students to elect courses which represent an in-depth interest in a single sub-discipline, an interest in a professional application or an interest in kinesiology in its broadest sense. Acadia provides many opportunities for students to gain practical experience in research, leadership and instruction, sport injury assessment management, etc., and encourages students to take advantage of these opportunities. Acadia's BKIN and BKIH programs are accredited by "CCUPEKA", the Canadian Council of University Physical Education and Kinesiology Administrators. CCUPEKA is the major academic body for Kinesiology in Canada and is responsible for the nationally recognized program of accreditation of university programs in the discipline.

## Exploring Specific Areas in Kinesiology

The core program provides students with a comprehensive foundation in each of the subdisciplines of kinesiology. Additionally, the degree provides introductory and advanced elective courses in a number of areas of interest which include the following: teaching, fitness programming and leadership, coach education, adapted physical activity, health promotion and wellness, exercise and sport studies, and sport injury assessment and rehabilitation. Students complete courses in these areas of interest for several reasons: to gain in-depth knowledge about a theme or a professional area, or to sample courses covering the wide field of Kinesiology. Faculty advisors can provide suggestions as to course choices that support advanced study in one of these areas of interest. Entry to certain elective courses in the areas of interest, notably courses requiring practical experience, are sometimes limited and enrolment may be competitive. Students who demonstrate particular interest and aptitude in research are encouraged to enter the Honours program. This choice is normally made at the end of the second year of study.

Programs available: Bachelor of Kinesiology with Honours (BKIH), Bachelor of Kinesiology (BKIN)

## KINESIOLOGY CORE (48h)

KINE 1013, KINE 1113, KINE 1213, KINE 1243, KINE 1333, KINE 1413, KINE 2033, KINE 2253, KINE 2413, KINE 2423, KINE 2433, KINE 3013, KINE 3213, KINE 3363, KINE 4633, 3 h activity lab course

## BACHELOR OF KINESIOLOGY WITH HONOURS

## Graduation Requirements

Students must complete the program as outlined below. A GPA of 3.0 is required in the Kinesiology Core. In addition, grades of B- are required in the Kinesiology and Communication Core. A minimum program GPA of 3.0 is required to graduate in the Honours program.

At least 50\% of the KINE electives offered for the degree must be at the 3000 level or better.

## Program Requirements

Students must complete 120 credit hours as follows:

1. Kinesiology Core (48h)
2. All of the following (21h): BIOL 1853, BIOL 1863, COMM 1213, KINE 1100, KINE 3100, KINE 3163, KINE 4996, MATH 1213
3. 9 h of Kinesiology electives
4. 6 h from the Faculty of Arts
5. 12 h from the Faculty of Arts or Faculty of Pure and Applied Science
6. 24 h of University electives ( 15 h of which must be outside KINE)

## BACHELOR OF KINESIOLOGY

## Graduation Requirements

Students must complete the program as outlined below. Grades of C- or better are required in the Kinesiology and Communication core. A minimum program GPA of 2 is required to be eligible to graduate.
At least 50\% of the KINE electives offered for the degree must be at the 3000 level or higher.

## Program Requirements

Students must complete 120 credit hours as follows:
Kinesiology Core (48h)

1. Kinesiology core (48h)
2. All of the following (12h): BIOL 1853, BIOL 1863, COMM 1213, KINE 1100, KINE 3100, MATH 1213,
3. 18 h of Kinesiology electives
4. 6 h from the Faculty of Arts
5. 12 h from the Faculty of Arts or Faculty of Pure and Applied Science
6. 24 h University electives ( 15 h of which must be outside KINE)

## BACHELOR OF KINESIOLOGY WITH HONOURS WITH BIOLOGY

## Graduation Requirements

Students must complete the program as outlined below. Grades of B- are required in the Kinesiology, Communication and Biology core. In addition, a minimum program GPA of 3.0 is required to graduate.

At least 50\% of the KINE electives offered for the degree must be at the 3000 level or higher.

## Program Requirements

Students must complete 120 credit hours with as follows:

1. Kinesiology Core (48h)
2. Biology Core (24h): BIOL 1853, BIOL 1863, BIOL 2013, BIOL 2043, BIOL 2053 , BIOL 2073, 6h Biology electives
3. All of the following (21h): COMM 1213, CHEM 1013, CHEM 1023, KINE 1100, KINE 3100, KINE 3163, KINE 4996, MATH 1213
4. 6 h from the Faculty of Arts
5. 9 h of Kinesiology electives
6. 12h of University electives

- An overall cumulative GPA of 3.0 is required for admission to this option.
- A maximum of 12 students will be accepted each year.


## BACHELOR OF KINESIOLOGY WITH BIOLOGY

## Graduation Requirements

Students must complete the program as outlined below. Grades of C- are required in the Kinesiology, Communication and Biology Core. In addition, a minimum program GPA of 2.0 is required to graduate.

At least $50 \%$ of the KINE electives offered for the degree must be at the 3000 level or higher.

## Program Requirements

Students must complete 120 credit hours as follows:

1. Kinesiology Core (48h)
2. Biology Core (24h): BIOL 1853, BIOL 1863, BIOL 2013, BIOL 2043, BIOL 2053, BIOL 2073, 6h Biology electives
3. All of the following (12h): COMM 1213, CHEM 1013, CHEM 1023, KINE 1100, KINE 3100, MATH 1213
4. 18h Kinesiology electives
5. 6 h from the Faculty of Arts
6. 12h University electives

- A maximum of 12 students will be accepted each year.
- An overall cumulative GPA of 2.75 is required for admission to this option.


## BACHELOR OF KINESIOLOGY WITH HONOURS (NUTRITION OPTION)

## Graduation Requirements

Students must complete the program as outlined below. Grades of B- are required in the Kinesiology, Communication and Nutrition Core. In addition, a minimum program GPA of 3.0 is required to graduate. At least $50 \%$ of the KINE electives offered for the degree must be at the 3000 level or higher.

## Program Requirements

Students must complete 120 credit hours as follows:

1. Kinesiology core (48h)
2. Nutrition Core (18h): NUTR 1313, NUTR 1323 and 12 h of NUTR electives approved by the School of Nutrition and Dietetics
3. All of the following (21h): BIOL 1853, BIOL 1863, COMM 1213, KINE 1100, KINE 3100, KINE 3163, KINE 4996, MATH 1213,
4. 9h Kinesiology electives
5. 6 h from the Faculty of Arts
6. 18 h University electives

- NUTR 1503 cannot be used for credit in the Kinesiology with Nutrition option.
- A maximum of 12 students will be accepted each year.
- An overall cumulative GPA of 3.0 is required for admission to this option.


## BACHELOR OF KINESIOLOGY (NUTRITION OPTION)

## Graduation Requirements

Students must complete the program as outlined below. Grades of C- are required in the Kinesiology, Communication and Nutrition Core and a minimum program GPA of 2.0 is required to graduate. Additionally, a minimum of $50 \%$ of the KINE electives offered for the degree must be at the 3000 level or higher.

## Program Requirements

Students must complete 120 credit hours as follows:

1. Kinesiology core (48h)
2. Nutrition Core (18h): NUTR 1313, NUTR 1323, plus 12h of Nutrition electives approved by the School of Nutrition and Dietetics
3. All of the following (12h): BIOL 1853, BIOL 1863, COMM 1213, KINE 1100, KINE 3100, MATH 1213,
4. 18h Kinesiology electives
5. 6 h from the Faculty of Arts
6. 18 h University electives

- A maximum of 12 students will be accepted each year.
- An overall cumulative GPA of 2.75 is required for admission to this option.


## BACHELOR OF KINESIOLOGY WITH HONOURS WITH PSYCHOLOGY

## Graduation Requirements

Students must complete the program as outlined below. Grades of B- are required in the Kinesiology, Communication and Psychology Core. In addition, a minimum program GPA of 3.0 is required to graduate.

At least $50 \%$ of the KINE electives offered for the degree must be at the 3000 level or higher.

## Program Requirements

Students must complete 120 credit hours as follows:

1. Kinesiology core (48h)
2. All of the following (21h): PSYC 1013, PSYC 1023, plus 15h Psychology elective courses. All PSYC courses must be completed with grades of B- or better.
3. All of the following (21h): BIOL 1853, BIOL 1863, COMM 1213, KINE 1100, KINE 3100, KINE 3163, KINE 4996, MATH 1213
4. 9h Kinesiology electives
5. 6 hours from the Faculty of Arts
6. 15 h University electives

## BACHELOR OF KINESIOLOGY WITH PSYCHOLOGY

## Graduation Requirements

Students must complete the program as outlined below. Grades of C- are required in the Kinesiology, Communication and Psychology core. In addition, a minimum program GPA of 2.0 is required to graduate.

At least 50\% of the KINE electives offered for the degree must be at the 3000 level or higher.

## Program Requirements

Students must complete 120 credit hours as follows:

1. Kinesiology core (48h)
2. All of the following (21h): PSYC 1013, PSYC 1023, plus 15h Psychology elective courses. All PSYC courses must be completed with a minimum grade of C-
3. All of the following (12h): BIOL 1853, BIOL 1863, COMM 1213, KINE 1100, KINE 3100, MATH 1213
4. 18h Kinesiology electives
5. 6 hours from the Faculty of Arts
6. 15h University electives

## LEGAL STUDIES

Office of the Dean of Arts; Beveridge Arts Centre, Room 224
Program Offered: Minor

## MINOR IN LEGAL STUDIES

Multidisciplinary Minors offer an alternative to completing the Minor requirements for a degree program in a single discipline. The requirements for a Minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the Minor program, while BSc students completing a multidisciplinary Minor are required to complete a minimum of 18 h in the Minor program. Students pursuing a Minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

A Minor in Legal Studies requires the completion of POLS 1303 and POLS 1403. The balance of the minor is to be chosen from the list courses below. No more than 12h can be in a single discipline. All courses offered towards this minor must be completed with a grade of C- or better.

## Cross-Listed Courses

The following courses may be counted towards the Minor in Legal Studies: BUSI 3613, BUSI 3623, BUSI 3643, CLAS 3113, ENVS 3113, HIST 3663, IDST 3103, IDST 3123, PHIL 3203, PHIL 3213, POLS 3083, POLS 3466, POLS 4403, SOCI 2713, SOCI 2723, SOCI 2753, SOCI 3703, SOCI 3743, SOCI 4183.

## MATERIAL AND VISUAL CULTURE

Office of the Dean of Arts; Beveridge Arts Centre, Room 224
Coordinators: Drs. Laurie Dalton, Sonia Hewitt, Jennifer MacDonald, Gillian Poulter
Material and visual culture are important sources in history, art history, classics, media studies and other disciplines. The courses currently taught from this perspective have been grouped together in order to create a multidisciplinary minor, which would be an appropriate course of study for students who want to pursue careers in art history, archaeology, museology or public history.

Program Offered: Minor

## MINOR IN MATERIAL AND VISUAL CULTURE

Multidisciplinary Minors offer an alternative to completing the Minor requirements for a degree program in a single discipline. The requirements for a Minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the Minor program, while BSc students completing a multidisciplinary Minor are required to complete a minimum of 18 h in the Minor program. Students pursuing a Minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

There are no required courses for the Minor in Material and Visual Culture. Students who wish to complete this minor are required to present the minimum number of credit hours chosen from the list of courses below to satisfy minor requirements in their program of study. No more than 12 h can be in a single discipline. All courses offered towards this minor must be completed with a grade of C- or better.

## Cross-Listed Courses

The following courses may be counted towards the minor in Material and Visual Culture: ART/HIST 1813, ART/HIST 1823, ART 2073, ART 2083, ART 2093, ART 2413, ART 2423, ART 3513, ART 3713, CLAS 2013, CLAS 2023, CLAS 2503, CLAS 2553, CLAS 3453, CLAS 3673, HIST 1533, HIST 2493, HIST 3143, HIST 3583, HIST 3593, HIST 3623, HIST 3713, HIST 3733, HIST 4343, IDST 2513, PHIL 2103, POLS 3783, SOCI 2533, SOCI 3553, THEA 2803, THEA 2813, WGST 3123.

## MATHEMATICS AND STATISTICS

Department of Mathematics and Statistics; Huggins Science Hall, Room 130
Ph: (902) 585-1382; Fax: (902) 585-1074; http://math.acadiau.ca/
Program(s) Offered: Bachelor of Arts with Honours (BAH), Bachelor of Arts with Major (BA), Bachelor of Science with Honours (BScH), Bachelor of Science (BSc), Minor

## MATHEMATICS AND STATISTICS CORE

All programs in Mathematics and Statistics require students to complete 33 credit hours as follows:

1. MATH 1013, MATH 1023, MATH 1313, MATH 1333, MATH 2013, MATH 2023 , MATH 2213, MATH 2223, MATH 2313, MATH 3533
2. 3 h from: COMP 1113 or APSC 1413.

## HONOURS IN MATHEMATICS AND STATISTICS (BA and BSc)

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts with Honours or Bachelor of Science with Honours requirements outlined in the previous section of this calendar. All courses presented for the Honours program must be completed with a minimum grade of B-.

## Program Requirements

Honours in Mathematics and Statistics is attained through either a thesis-based or project-based program of study. Regardless of which route a student chooses, at least 57 h in must be completed in the Honours program as follows.

Thesis-Based Honours

1. Mathematics and Statistics Core
2. 3 h from: MATH 3213 or MATH 3303
3. 15 h at $3000 / 4000$ level (of which 6 h must be at the 4000 level). The 4000 level courses are to be approved by the department
4. MATH 4996

Project-Based Honours

1. Mathematics and Statistics Core
2. 3 h from: MATH 3213 or MATH 3303
3. 18 h at $3000 / 4000$ level (of which 6 h must be at the 4000 level). The 4000 level courses are to be approved by the department
4. MATH 4913

## MAJOR IN MATHEMATICS AND STATISTICS

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Major) or Bachelor of Science (Major) requirements outlined in the previous section of this calendar.

## Program Requirements

A Major in Mathematics and Statistics is available in both a Bachelor of Arts and a Bachelor of Science degree. Regardless of which route a student chooses, a minimum of 48 h must be completed in the Major program as follows:

## Bachelor of Arts

1. Mathematics and Statistics Core
2. 3h MATH above 1000 level
3. 12h MATH at the 3000/4000-level approved by the department

## Bachelor of Science

1. Mathematics and Statistics Core
2. 6 h additional MATH above the 1000 -level or 3 h , if a 15 h Minor is presented
3. 12h MATH at the 3000/4000-level approved by the department

## DOUBLE MAJORS

Mathematics and Statistics is offered as a Double Major in both Arts and Science programs. Specific programs have been designed for BSc students who want to pursue a second major in any of the following disciplines: Business, Economics, Computer Science, Music, Applied Science. The requirements for these programs are outlined below. For all other programs, refer to the general requirements that follow:

## DOUBLE MAJOR: MATHEMATICS AND STATISTICS AS FIRST MAJOR <br> Graduation Requirements <br> In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Double Major) or Bachelor of Science (Double Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 45 credit hours in the Major program as follows. The major requirements are the same for students in the BA and BSc programs.

1. Mathematics and Statistics Core (except MATH 3533)
2. 15 h additional MATH at the $3000 / 4000-$ level approved by the department

## DOUBLE MAJOR: MATHEMATICS AND STATISTICS AS SECOND MAJOR

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Double Major) or Bachelor of Science (Double Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 36 credit hours in the Major program as follows. The major requirements are the same for students in the BA and BSc programs.

1. All of the following ( 15 h ): MATH 1013, MATH 1023, MATH 2213, MATH 2223, MATH 2313
2. 3 h from: MATH 1323 or MATH 1333
3. 6h from: MATH 2013/MATH 2023 or MATH 2723/MATH 2753
4. 12h additional MATH at 3000 level or above

- The choice of MATH 2013/MATH 2023 or MATH 2723/MATH 2753, and the choices of 3000/4000 level courses must be approved by both departments.


## MATHEMATICS AND STATISTICS WITH APPLIED SCIENCE (BSc)

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science (Double Major) requirements outlined in the previous section of this calendar. Students wishing to complete the Certificate of Applied Science should consult with the School of Engineering concerning their selection of additional courses.

## Program Requirements

Students must complete a minimum of 42h in Mathematics and Statistics and 39h in Applied Science as follows:

1. All of the following: MATH 1013, MATH 1023, MATH 1313, MATH 1333, MATH 2013, MATH 2023, MATH 2213, MATH 2223, MATH 2313, PHYS 1013, CHEM 1013
2. 15 h MATH at $3000 / 4000$ level
3. 33 h of Applied Science courses to be chosen at the direction of the School of Engineering

## MATHEMATICS AND STATISTICS WITH BUSINESS (BSc)

Graduation Requirements
In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science (Double Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 45 credit hours in Mathematics and Statistics and 48h in Business as follows:

1. All of the following (72h): MATH 1013, MATH 1023, MATH 1313, MATH 1333, MATH 2013, MATH 2023, MATH 2213, MATH 2223, MATH 2313, MATH 3603, MATH 3633, BUSI 1013, BUSI 1703, BUSI 2013, BUSI 2733, BUSI 2223, BUSI 2233, BUSI 2423, BUSI 2433, BUSI 2513, BUSI 3063, BUSI 3613, ECON 1013, ECON 1023
2. 6h from: MATH 3233, MATH 3253, MATH 3263, MATH 3273, MATH 3283 , MATH 3293
3. 3 h additional MATH at the 3000/4000-level approved by the department
4. 3 h from: COMP 1113 or APSC 1413
5. 9 h BUSI at the $3000 / 4000-\mathrm{level}$

## MATHEMATICS AND STATISTICS WITH COMPUTER SCIENCE (BSc)

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science (Double Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 42 h in the Mathematics and 39 h in Computer Science as follows:

1. All of the following (63): MATH 1013, MATH 1023, MATH 1313, MATH 1333, MATH 2013, MATH 2023, MATH 2213, MATH 2223, MATH 2313, MATH 3413, MATH 4423, COMP 1113, COMP 1123, COMP 2103, COMP 2113, COMP 2203, COMP 2213, COMP 3413, COMP 3613, COMP 3713, COMP 3753
2. 3 h from: MATH 3303 or MATH 3533
3. 3h MATH at the 3000/4000-level approved by the department
4. 9 additional COMP at the $3000+$ level approved by the Jodrey School of Computer Science

## MATHEMATICS AND STATISTICS WITH ECONOMICS (BSc)

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science (Double Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 45 credit hours in Mathematics and Statistics and 36h in Economics as follows:

1. All of the following: MATH 1013, MATH 1023, MATH 1313, MATH 1333, MATH 2013, MATH 2023, MATH 2213, MATH 2223, MATH 2313, MATH 3233, ECON 1013, ECON 1023, ECON 2113, ECON 2213, ECON 3113, ECON 3123, ECON 4613
2. 6h from: MATH 3263, MATH 3273, MATH 3283, MATH 3293, MATH 3603, MATH 3713
3. 6 h additional Mathematics and Statistics courses at the 3000/4000-level approved by the department
4. 15 h Economics courses at the 3000/4000-level approved by the Economics department
5. 3 h from: COMP 1113 or APSC 1413

## MATHEMATICS AND STATISTICS WITH MUSIC (BSc)

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science (Double Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete 120 credit hours including 45h in Mathematics and Statistics and 39h in Music as follows:

1. All of the following (27h): MATH 1013, MATH 1023, MATH 1313, MATH 1333, MATH 2013, MATH 2023, MATH 2213, MATH 2223, MATH 2313
2. 27h: MUSI 1216, MUSI 1563, MUSI 1693, MUSI 1813, MUSI 2106, MUSI 2693 , MUSI 2793
3. 15h MATH at the 3000/4000 level
4. 3h from: COMP 1113 or APSC 1413
5. MUSI 1666, MUSI 2666 (for students who complete a successful audition) or 12 h music electives.
6. MUSI 1600 in first year and MUSI 2700 in each subsequent year of enrolment.

## INTEGRATED BSC/BED PROGRAMS

The Department of Mathematics and Statistics offers integrated BSc/BEd programs in cooperation with the School of Education. These programs are five years in duration and are intended for undergraduate students who decide early in their academic program that they wish to pursue teaching. Students apply to the program during their first year of study. Students will be admitted to the integrated program on successful completion of Year 1. Student qualifications are reviewed on completion of Year 3, and continuance in the BEd portion of the program will be contingent on this review.

## FIRST DEGREE: BSC WITH HONOURS IN MATHEMATICS AND STATISTICS WITH EDUCATION SECOND DEGREE: BACHELOR OF EDUCATION

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science with Honours and Second Major requirements outlined in the previous section of this calendar. Students are also subject to the requirements for the Bachelor of Education degree as outlined in the respective section of this calendar. Additionally, all MATH courses must be completed with a minimum grade of B-.

## Program Requirements

Students must complete a minimum of 150h as follows:

1. 54 h of Mathematics and Statistics leading to completion of the Honours program. Honours in Mathematics can be achieved through either a thesis-based or project-based program of study.
A) Thesis-Based Honours
a) All of the following (36h): MATH 1013, MATH 1023, MATH 1313, MATH 1333, MATH 2013, MATH 2023, MATH 2213, MATH 2223, MATH 2313, MATH 3533, MATH 4996
b) 3 h from: MATH 3213 or MATH 3303
c) 15 h MATH at $3000 / 4000$ level (of which 6 h must be at the 4000 level)
B) Project-Based Honours
a) All of the following (33h): MATH 1013, MATH 1023, MATH 1313, MATH 1333 , MATH 2013, MATH 2023, MATH 2213, MATH 2223, MATH 2313, MATH 3533, MATH 4913. The 4000-level MATH courses are to be approved by the department.
b) 3 h from: MATH 3213 or MATH 3303
c) 18 h MATH at $3000 / 4000$ level (of which 6 h must be at the 4000 level). The 4000-level MATH courses are to be approved by the department.
2. All of the following (60h): EDUC 4053 EDUC 41F3, EDUC 4333, EDUC 4003, EDUC 40A3, EDUC 40C3 or EDUC 4783, EDUC 42D3, EDUC 4263, EDUC 4433, EDUC 4923, EDUC 4203, EDUC 4503, EDUC 4933, EDUC 4183, EDUC $4143^{*}$, EDUC $4643^{*}$, plus 12 h of EDUC electives
3. 18 h in any discipline recognized by the School of Education as fulfilling the Second Teachable requirements.
4. 6h selected from English, Art at the 1000-level, Classics, Comparative Religion, a single language other than English, History, Music (not applied, vocal or instrumental methods, or practical studies) Philosophy, Theology (THEO 3013/23, BIBL 2013/23, GREE 3013/23), or Women's and Gender Studies
5. 3h Computer Science courses directed towards Computer Science or Science students (either COMP 1113 or APSC 1413)
6. 6 h electives from courses in the Faculty of Arts
7. 3 h electives

* equivalent methods courses for second teachable areas other than science can be substituted


## FIRST DEGREE: BSC DOUBLE MAJOR MATHEMATICS WITH EDUCATION SECOND DEGREE: BACHELOR OF EDUCATION

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science (Double Major) requirements outlined in the previous section of this calendar. Students are also subject to the requirements for the Bachelor of Education degree as outlined in the respective section of this calendar.

## Program Requirements

Students must complete a minimum of 150 oh as follows:

1. All of the following (27h): MATH 1013, MATH 1023, MATH 1313, MATH 1333, MATH 2013, MATH 2023, MATH 2213, MATH 2223, MATH 2313
2. 15 h additional MATH at $3000 / 4000$ level.
3. All of the following (60h): EDUC 4053, EDUC 41F3, EDUC 4333, EDUC 4003, EDUC 40A3, EDUC 40C3 or EDUC 4783, EDUC 4263, EDUC 42D3, EDUC 4433, EDUC 4923, EDUC 4203, EDUC 4503, EDUC 4933, EDUC 4183, EDUC $4143^{* *}$, EDUC $4643^{* *}$, plus 12 h of EDUC electives
4. 18 h in any discipline recognized by the School of Education as fulfilling the Second Teachable requirements
5. 6h selected from English, Art at the 1000-level, Classics, Comparative Religion, a single language other than English, History, Music (not applied, vocal or instrumental methods, or practical studies) Philosophy, Theology (THEO 3013/23, BIBL 2013/23, GREE 3013/23), or Women's and Gender Studies (6h)
6. 3 h Computer Science courses directed towards Computer Science or Science students (either COMP 1113 or APSC 1413)
7. 6h electives from the Faculty of Arts
8. 15 h of electives including sufficient Science electives to meet the requirements of a BSc Double Major
** equivalent methods courses for second teachable areas other than science can be substituted

## ACTUARIAL SCIENCE OPTION

1. MATH 1013, MATH 1023, MATH 1323 or 1333, MATH 2013 or 2753, MATH 2023 or 2723, MATH 2213, MATH 2223, MATH 2313
2. MATH 2633, MATH 3213, MATH 3233, MATH 3283, MATH 4233 ;
3. 9 from MATH $3803,3813,3823,4803,4813$;
4. COMP 1113, COMP 1123;
5. ECON 1013, ECON 1023;
6. BUSI 1013, BUSI 2013, BUSI 2223, BUSI 2233, BUSI 3243, BUSI 3273, BUSI 4223 , BUSI 4233, BUSI 4243, BUSI 4253.

## DATA ANALYTICS OPTION

In addition to required 1000- and 2000-level Math courses, students should take: COMP 1013, COMP 1023; MATH 3233, MATH 3283, MATH 3293, MATH 3603, MATH 3633, MATH 3713, MATH 4213, MATH 4223, 4233; ECON 1013, ECON 1023; BUSI 1013, BUSI 2013, BUSI 2513, BUSI 3063.

## MINOR IN MATHEMATICS AND STATISTICS

The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a minor in Mathematics and Statistics are required to complete a minimum of 12 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

## CERTIFICATE IN MATH TEACHING

The School of Education and Department of Mathematics and Statistics combine to offer the Certificate in Math Teaching through Open Acadia. This 30 credit-hour, post-BEd program is offered on a part-time basis through a combination of intersession courses and evening courses supported by online delivery formats. This format has the goal of enabling teachers to complete the program requirements in two years. The program aims to provide a broad understanding of mathematics topics and concepts central to the NS Math curriculum in grades 5-9, along with an understanding of current research and theory in math pedagogy.

## MUSIC

School of Music; Harvey Denton Hall, Room 231
Ph: (902) 585-1512; Fax: (902) 585-1037; http://music.acadiau.ca/
The School of Music offers a comprehensive music curriculum where students develop expertise in a chosen area of specialization while being encouraged to broaden their horizons within our many diverse course offerings.

Our School of Music faculty believes an undergraduate school of music in a liberal university should be more of a laboratory than a conservatory. We strive to create versatile, confident, and well-rounded musicians who are prepared to meet the challenges of the 21st century. Our foundational curriculum combines courses in music theory, music history and culture, musicianship skills, keyboard skills, improvisation, composition, intensive ensembles, but our courses are taught in a creative way, with outcomes geared for contemporary musicians. The aim is to graduate well-rounded musicians who can thrive in a variety of professional contexts.

All School of Music degrees offer students the chance for individual lessons to establish strong technical and artistic foundations, while classroom courses, ensemble opportunities, and major artistic projects ensure that students can function as contemporary artists in multiple genres including classical, popular, jazz, and world musics.

Many courses offered by the School of Music are available as electives to all full- and parttime students of the university. School of Music ensembles like the university band, chorus, jazz band, and orchestra are available to all university students, and an ensemble fee will apply to all students registered in ensembles.

Students should be aware that extra fees will apply for the Concert Credit, and supplementary fees will be charged to non-music students as listed in the fees section of this calendar.

Programs Offered: Bachelor of Music (BM), Bachelor of Arts in Music (BAM), Bachelor of Music Therapy (BMT), Certificate in Music Therapy (CMT) and Certificate in Music Education (CME).

## SCHOOL OF MUSIC CORE (33h)

1. MUSI 1216, MUSI 1563, MUSI 1693, MUSI 1813, MUSI 2106, MUSI 2693, MUSI 2793 (Each of these courses must be completed with a grade of C- or better)
2. 6h of: ENGL 1406 or ENGL 1413 and ENGL 1423, or any combination of History courses at the 1000 level.
3. First-year music students will take MUSI 1600 and one section of MUSI 2700. Students in each subsequent academic level must successfully complete both terms of MUSI 2700 each year.
4. Music majors must complete MUSI 2870, Concert Credit, in each year of their program.

## BACHELOR OF MUSIC

## Graduation Requirements

Students must complete the program as outlined below. Additionally, students must achieve a minimum cumulative GPA of 2.0 to graduate from the program.

## Bachelor of Music Requirements: (12oh)

1. School of Music Core (33h)
2. MUSI 1666, MUSI 2666, MUSI 3666 and MUSI 4666
3. 12h Chamber Music Workshop (MUSI 2713)
4. $\quad 6 \mathrm{~h}$ of Music Theory (3h) and History and Culture (3h)
5. 21h Music Electives
6. 24 h non-Music Electives
7. First-year music students will take MUSI 1600 and one section of MUSI 2700. Students in each subsequent academic level must successfully complete both terms of MUSI 2700 each year.

## BACHELOR OF MUSIC WITH CONCENTRATION IN EDUCATION

(The concentration in Music Education is designed to provide preparation for entrance into the Bachelor of Education program. Students must earn a minimum CGPA of 3.0, by the end of second year, in order to continue in the Music Education program.)

## Graduation Requirements

Students must complete the program as outlined below. Additionally, students must achieve a minimum cumulative GPA of 2.0 to graduate from the program.

## Bachelor of Music (concentration in Education) Requirements: (120h)

1. School of Music Core (33h)
2. MUSI 1666, MUSI 2666, MUSI 3666 and MUSI 4666
3. 6h Chamber Music Workshop (MUSI 2713)
4. 3h additional Music Theory, History and Culture
5. Music Education students must complete all the courses, in preparation for either Elementary or Secondary Music Teacher Certification in a BE. program. (21h) - MUSI 2343, MUSI 3310, MUSI 3311, MUSI 3320, MUSI 3321, MUSI

3331, MUSI 3341, MUSI 3351, MUSI 3361, MUSI 3371, MUSI 3381, MUSI 3391, MUSI 4343, MUSI 43A3, MUSI 43B3
6. 6 h from: MUSI 3143 or MUSI 4143 or MUSI 4153
7. 3 h from: MUSI 1713 or MUSI 2353 or MUSI 4363
8. 24 h non-music electives
9. First-year music students will take MUSI 1600 and one section of MUSI 2700. Students in each subsequent academic level must successfully complete both terms of MUSI 2700 each year.

## BACHELOR OF ARTS IN MUSIC HONOURS (BAMH)

## Graduation Requirements

Students must complete the program as outlined below. Additionally, students must achieve a minimum cumulative GPA of 3 .o to graduate from the program.

## Bachelor of Arts in Music Program with Honours Requirements: (120h)

1. School of Music Core (33h)
2. MUSI 4996
3. 21h of additional Music Theory, History and Culture
4. 18h Music Electives
5. 42h non-Music Electives
6. First-year music students will take MUSI 1600. Students in each subsequent academic level must successfully complete both terms of MUSI 2700 each year.

## BACHELOR OF ARTS IN MUSIC (BAM)

## Graduation Requirements

Students must complete the program as outlined below. Additionally, students must achieve a minimum cumulative GPA of 2.0 to graduate from the program.

## Bachelor of Arts in Music Requirements: (120h)

1. School of Music Core (33h)
2. 15 h of additional Music Theory, History and Culture
3. 3oh Music Electives
4. 42h non-Music Electives
5. First-year music students will take MUSI 1600. Students in each subsequent academic level must successfully complete both terms of MUSI 2700 each year.

## BACHELOR OF MUSIC THERAPY

(Students must earn a minimum CGPA of 3.0, by the end of second year, in order to continue in the Music Therapy program.)

## Graduation Requirements

Students must complete the program as outlined below. Additionally, students must achieve a minimum cumulative GPA of 2.0 to graduate from the program.

## Bachelor of Music Therapy Program Requirements: (120h)

1. School of Music Core (33h)
2. MUSI 1666 and MUSI 2666
3. $6 h$ of MUSI 2713
4. 12h fro: MUSI 1353, MUSI 1713, MUSI 1733, MUSI 2083, or MUSI 2343, MUSI 4663
5. All of the following (18h): MUSI 2573, MUSI 3553, MUSI 3563, MUSI 3573, MUSI 4563, and MUSI 4573
6. 18h of PSYC which must include PSYC 1013, PSYC 1023, PSYC 2113, PSYC 2133, PSYC 2153
7. 12h Music electives
8. 9h non-Music electives
9. First-year music students will take MUSI 1600 and one section of MUSI 2700. Students in each subsequent academic level must successfully complete both terms of MUSI 2700 each year.

The Music Therapy program includes four different practicum placements, completed within the course requirements. After finishing the BMT degree, candidates will complete a 1000 hour ( 6 -month) supervised internship, and then make a formal application to the Canadian Association for Music Therapy to become a Music Therapist Accredited (MTA).

## CERTIFICATE IN MUSIC EDUCATION

Students must complete 30 h as follows:

1. MUSI 3143, MUSI 4543, MUSI 4153, MUSI 43A3, MUSI 43B3
2. $6 h$ from MUSI 2243, MUSI 2353, MUSI 4343
3. 9 h of instrumental methods or equivalent (9h)

- Students must also be registered in one music ensemble in each year of study.
- A minimum CPGA is 2 is required to graduate.


## CERTIFICATE IN MUSIC THERAPY

The Certificate in Music Therapy is available for students with an earned degree in music who wish to study at Acadia University in order to become eligible for professional music therapy credentials. Students must complete 30 credit hours including all of the following courses: MUSI 1563, MUSI 2573, MUSI 3563, MUSI 3573, MUSI 4563, MUSI 4573, PSYC 2103, PSYC 2113, PSYC 2133, PSYC 2153.

Before completion, the student must show proficiency in piano, guitar, percussion, and voice. After finishing this program, the candidate completes a 1000 hour ( 6 month) supervised internship, and then make a formal application to become Music Therapist Accredited (MTA) with The Canadian Association for Music Therapy.

## NUTRITION AND DIETETICS

The School of Nutrition and Dietetics; Huggins Science Hall, Room 425
Ph: (902) 585-1366; Fax: (902) 585-1637; nutr@acadiau.ca
The School of Nutrition and Dietetics has a long and distinguished history at Acadia. Since 1928, the School has been graduating high-caliber individuals, well grounded in the art and science of nutrition, and equally capable of obtaining work in the dietetic profession or continuing their studies in graduate school, education or the health professions, such as medicine, physiotherapy, nursing and dentistry.

Students in this program build on a foundation of food and develop an appreciation for current issues in nutrition and dietetics. Nutrition students gain solid knowledge in biology and chemistry which is applied to studies of food and nutrient metabolism. This background, combined with courses in areas such as communications, nutrition education, psychology and statistics, prepares students to work effectively with individuals, families and communities to plan, develop and manage relevant nutrition programs.

The curriculum of the four-year Bachelor of Science in Nutrition degree program supports students to develop an area of interest in human nutrition and/or take courses which
enable them to qualify for the integrated or postgraduate training required to become a professional dietitian. Students can also pursue combined studies in nutrition and biology, or nutrition and psychology which serve as excellent preparation for careers in the medical and health professions. Students intending to pursue postgraduate studies are encouraged to complete the Honours program.

Programs Offered: Bachelor of Science in Nutrition with Honours (BSNH), Bachelor of Science in Nutrition (BSN), Minor

## NUTRITION CORE (39h)

NUTR 1313, NUTR 1323, NUTR 1333, NUTR 1343, NUTR 2323, NUTR 3513, NUTR 3543, NUTR 3713, NUTR 3723, NUTR 4223, NUTR 4523, NUTR 4533, NUTR 4903

## BACHELOR OF SCIENCE IN NUTRITION WITH HONOURS PROGRAMS

## Graduation Requirements

Honours is available in all of the BSN degrees outlined below. In addition to the specific course requirements for each program, a GPA of 3.33 is required for Honours. Additionally, a minimum of 48 h in Nutrition courses must each be passed with a minimum B- grade.

## Program Requirements

Students must complete 120 credit hours. There are two routes to the BSN with Honours.
a) Thesis route (NUTR 4996). Admission to the thesis route requires agreement of a faculty member in the School to supervise the thesis
b) Dietetic Practicum (NUTR 4033 and NUTR 4043)

## BACHELOR OF SCIENCE IN NUTRITION

## Graduation Requirements

Students must complete the program as outlined below. Additionally, a minimum program GPA of 2.0 is required to graduate and all Nutrition courses offered towards program requirements must each be completed with a minimum C- grade.

## Program Requirements

Students must complete 120 credits hours as follows:

1. The Nutrition core (39h)
2. All of the following: BIOL 1813, BIOL 2053, BIOL 2813, BIOL 2823, CHEM 1013, CHEM 1023, CHEM 2513, PSYC 1013, PSYC 1023
3. 3h from: CHEM 2713 or CHEM 2773
4. 6h from: MATH 1213/MATH 1223 or MATH 2233/MATH 2243
5. 3h NUTR electives
6. 6h selected from English, Art at the 1000-level, Classics, Comparative Religion, a single language other than English, History, Music (not applied, vocal or instrumental methods, or practical studies), Philosophy, Theology (THEO 3013/3023, BIBL 2013/2023, GREE 3013/3023), or Women's and Gender Studies
7. 6 h from the Faculty of Arts
8. 3oh university electives
9. A minor, 12 h in one subject other than Nutrition, with a minimum grade of C - in each course

## BACHELOR OF SCIENCE IN NUTRITION (DIETETICS OPTION)

The School of Nutrition and Dietetics offers a Dietetic Practicum Program in partnership with the Western Zone of the Nova Scotia Provincial Health Authority. This program
provides practicum placements for full-time Acadia students who successfully compete for the positions and supports two streams - integrated and graduate. Students with a minimum GPA of 2.67 can make application for this program in their third or fourth year. Students enrolled in the Dietetic Practicum Program complete placements with Western Nova Scotia dietitians for the summers after their third and fourth years of study or for a year post-graduation to complete the Integrated Competencies for Dietetic Education and Practice (ICDEP) required to be eligible to write the national Canadian Dietetic Registration Exam (CDRE) and earn the Professional Dietitian designation. Further information on other dietetic practicum programs in Canada can be found on the Dietitians of Canada website (http://www.dietitians.ca).

## Graduation Requirements

Students must complete the program as outlined below. Additionally, a minimum program GPA of 2.0 is required to graduate and all Nutrition courses offered towards program requirements must each be completed with a minimum C- grade. Students completing this option will meet the eligibility requirements for application to internships that meet the accreditation standards set by PDEP (Partnership for Dietetic Education and Practice).

## Program Requirements

Students must complete 120 credit hours as follows.

1. The Nutrition core (39h)
2. All of the following: BIOL 1813, BIOL 2053, BIOL 2813, BIOL 2823, CHEM 1013, CHEM 1023, CHEM 2513, NUTR 3553, NUTR 4013, NUTR 4023, NUTR 4553, NUTR 4743, PSYC 1013, PSYC 1023
3. 3 h from: CHEM 2713 or CHEM 2773
4. 6h from: MATH 1213/MATH 1223 or MATH 2233/MATH 2243
5. 6h selected from English, Art at the 1000-level, Classics, Comparative Religion, a single language other than English, History, Music (not applied, vocal or instrumental methods, or practical studies) Philosophy, Theology (THEO 3013/THEO 3023, BIBL 2013/BIBL 2023, GREE 3013/GREE 3023), or Women's and Gender Studies
6. 6 h from the Faculty of Arts
7. 18 h university electives
8. A minor, 12 h in one subject other than Nutrition, with a minimum grade of C - in each course

## BACHELOR OF SCIENCE IN NUTRITION WITH SECOND MAJOR IN BIOLOGY

## Graduation Requirements

Students must complete the program as outlined below. Additionally, a minimum program GPA of 2.0 is required to graduate and all courses offered towards Nutrition and Biology requirements must each be completed with a minimum C- grade.

## Program Requirements

Students must complete 120 credits hours as follows:

1. The Nutrition core (39h)
2. All of the following: BIOL 2013, BIOL 2073, CHEM 1013, CHEM 1023, CHEM 2513, MATH 2233, MATH 2243, PSYC 1013, PSYC 1023
3. 6 h from: BIOL 1113/BIOL 1123 or BIOL 1813/BIOL 1823
4. 3h from: BIOL 2043 or BIOL 2053
5. 3h from: CHEM 2713 or CHEM 2773
6. 15h Biology courses ( 12 h of which must be at the 3000/4000 level)
7. 3h NUTR electives
8. 6h selected from English, Art at the 1000-level, Classics, Comparative Religion, a single language other than English, History, Music (not applied, vocal or instrumental methods, or practical studies), Philosophy, Theology (THEO 3013/THEO 3023, BIBL 2013/BIBL 2023, GREE 3013/GREE 3023), or Women's and Gender Studies
9. 6 h from the Faculty of Arts
10. 12h university electives
11. A minor, 12 h in one subject other than Nutrition, with a minimum grade of C - in each course

## BACHELOR OF SCIENCE IN NUTRITION WITH SECOND MAJOR IN PSYCHOLOGY

## Graduation Requirements

Students must complete the program as outlined below. Additionally, a minimum program GPA of 2.0 is required to graduate and all courses offered towards Nutrition and Psychology requirements must each be completed with a minimum C- grade.

Please note: Students in the Bachelor of Science in Nutrition (Dietetics Option) with second major in Psychology will not be able to complete all requirements in 4 years.

## Program Requirements

Students must complete 120 credits hours as follows:

1. The Nutrition core (39h)
2. All of the following: BIOL 1813, BIOL 2053, BIOL 2813, BIOL 2823 CHEM 1013, CHEM 1023, CHEM 2513, PSYC 1013, PSYC 1023, PSYC 2013, PSYC 2023
3. 3 h from: PSYC 2113 or PSYC 2123
4. 3h from: PSYC 2133 or PSYC 2143 or PSYC 2173
5. 3 h from: PSYC 2103 or PSYC 2153
6. 12 h additional PSYC (at least 9 h of which must be at the $3000 / 4000$ level), completed with a C- or better
7. 3 h from: CHEM 2713 or CHEM 2773
8. 6h from: MATH 1213/MATH 1223 or MATH 2233/MATH 2243
9. 3 h NUTR electives
10. 6h selected from English, Art at the 1000-level, Classics, Comparative Religion, a single language other than English, History, Music (not applied, vocal or instrumental methods, or practical studies), Philosophy, Theology (THEO 3013/3023, BIBL 2013/2023, GREE 3013/3023), or Women's and Gender Studies
11. 6 h from the Faculty of Arts
12. 3 h university elective
13. A minor, 12 h in one subject other than Nutrition, with a minimum grade of C - in each course

## BACHELOR OF SCIENCE IN NUTRITION (KINESIOLOGY OPTION)

## Graduation Requirements

Students must complete the program as outlined below. Additionally, a minimum program GPA of 2.0 is required to graduate and all Nutrition courses offered towards program requirements must each be completed with a minimum C- grade.

## Program Requirements

Students must complete 120 credits hours as follows:

1. The Nutrition core (39h)
2. All of the following: BIOL 1813, CHEM 1013, CHEM 1023, CHEM 2513, KINE 3013, PSYC 1013, PSYC 1023
3. 12h Kinesiology courses (other than KINE 2293, KINE 2413, KINE 2423)
4. 6h from: BIOL 2813/BIOL 2823 or KINE 2413/KINE 2423 (credit can only be obtained for one of these pairs of courses)
5. 3 h from: CHEM 2713 or CHEM 2773
6. 6h from: MATH 1213/MATH 1223 or MATH 2233/MATH 2243
7. 3 h BIOL elective
8. 3 h NUTR elective
9. 6 h selected from English, Art at the 1000-level, Classics, Comparative Religion, a single language other than English, History, Music (not applied, vocal or instrumental methods, or practical studies), Philosophy, Theology (THEO 3013/THEO 3023, BIBL 2013/BIBL 2023, GREE 3013/GREE 3023), or Women's and Gender Studies
10. 6 h from the Faculty of Arts
11. 15 h university electives
12. A minor, 12 h in one subject other than Nutrition, with a minimum grade of C - in each course

- A maximum of 12 students will be accepted each year. Students interested in this option will be considered for admission in the winter semester of their second year in the Bachelor of Science in Nutrition program. A cumulative GPA of 2.75 is required for admission to this option.


## MINOR IN NUTRITION

The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a minor in Nutrition are required to complete a minimum of 12 h in the minor program with a minimum grade of C- in each course. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

## PHILOSOPHY

Department of Philosophy; Beveridge Arts Centre, Room 219
Ph: (902) 585-1506; Fax: (902) 585-1070; http://philosophy.acadiau.ca/
Philosophy tackles some of the most fundamental questions one can ask, such as: How should I live? What can I know? Does God exist? What rights and duties do I have? Do I act freely? Studying philosophy bestows insight into questions like these and develops skills of analysis, argumentation and clear expression. Philosophical questions underlie the theory and practice of every academic field.

Programs Offered: Bachelor of Arts with Honours (BAH), Bachelor of Arts with Major (BA), Minor

## HONOURS IN PHILOSOPHY

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts with Honours requirements outlined in the previous section of this calendar. Additionally, no more than 6 h of PHIL at the 1000 level may contribute toward the degree.

## Program Requirements

Students must complete 54h in Philosophy as follows:

1. 6 h of PHIL at the 1000-level
2. 6 h from: PHIL 2006 or both PHIL 3513/PHIL 3533
3. PHIL 2016, PHIL 2306, PHIL 2823, PHIL 4996
4. 3h from: PHIL 2913 or PHIL 3553
5. 3 h from: PHIL 3113 or PHIL 3223
6. 15 h from Philosophy courses which must include 6 h at the 3000-level (or above)

## MAJOR IN PHILOSOPHY

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Major) requirements outlined in the previous section of this calendar. Additionally, no more than 6h of PHIL at the 1000 level may contribute toward the degree.

## Program Requirements

Students must complete 42h in Philosophy as follows:

1. 6 h of PHIL at the 1000 -level;
2. 6 h from: PHIL 2006 or both PHIL 3513/PHIL 3533;
3. PHIL 2016, PHIL 2913
4. 3 h from: PHIL 2813 or PHIL 2823
5. 6h from: PHIL 2303, PHIL 2306, PHIL 2713, PHIL 3203, PHIL 3213
6. 12 h of Philosophy courses which must include 6 h at the $3000-\mathrm{level}$ (or above)

## DOUBLE MAJOR: PHILOSOPHY AS FIRST MAJOR

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Double Major) requirements outlined in the previous section of this calendar. Additionally, no more than 6 h of PHIL at the 1000 level may contribute toward the degree.

## Program Requirements

Students must complete the 42 h described in the Philosophy Major program above.

## DOUBLE MAJOR: PHILOSOPHY AS SECOND MAJOR

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Double Major) requirements outlined in the previous section of this calendar. Additionally, no more than 6h of PHIL at the 1000 level may contribute toward the degree.

## Program Requirements

Students must complete 36h in Philosophy as follows:

1. 6h of PHIL at the 1000 -level;
2. 6h from: PHIL 2006 or both PHIL 3513/PHIL 3533
3. PHIL 2016
4. 6h from: PHIL 2303, PHIL 2306, PHIL 2713, PHIL 3203, PHIL 3213
5. 12h of Philosophy courses which must include 6h at the 3000-level (or above)

## MINOR IN PHILOSOPHY

The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a minor are required to complete a minimum of 12 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

## Cross-Listed Courses

The following courses may be counted towards major credit in Philosophy: POLS 2343, POLS 2643.

## PHYSICS

Department of Physics; Huggins Science Hall, Room 225
Ph: (902) 585-1401; Fax: (902) 585-1816; physics@acadiau.ca
Programs Offered: Bachelor of Science with Honours (BScH), Bachelor of Science with Major (BSc), Minor

## PHYSICS CORE

1. PHYS 1013 or PHYS 1053/PHYS 1063
2. PHYS 1023, PHYS 2113, PHYS 2203, PHYS 2213, PHYS 2413, PHYS 2523, PHYS 3253, PHYS 3613

## HONOURS IN PHYSICS

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science with Honours requirements outlined in the previous section of this calendar. Additionally, all courses for the Physics Honours program must completed be with a minimum grade of B-

## Program Requirements

Students must complete a minimum of 75 h in the Honours program as follows:

1. The Physics Core
2. 21h Physics at the $3000 / 4000-l e v e l$
3. PHYS 4996 or PHYS 4513 and 3h Physics at the 3000/ 4000-level
4. MATH 1013, MATH 1023, MATH 2723, MATH 2753, MATH 3713, MATH 4753
5. 3 h from: MATH 1333 or MATH 1323
6. 6h from: CHEM 1013/CHEM 1023, CHEM 1113/CHEM 1123, APSC 1413, APSC 2613, COMP 1113, COMP 1123

- PHYS 1053/ PHYS 1063, PHYS 1513/ PHYS 1523, PHYS 1543 and PHYS 1553 may not be offered to fulfill Major requirements.


## MAJOR IN PHYSICS

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science (Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 57h in the Major program as follows:

1. The Physics Core
2. An additional 21 h or 18 h or 15 h or 9 h Physics depending upon the Minor(s) presented.
3. MATH 1013, MATH 1023, MATH 2723, MATH 2753
4. 3 h from: MATH 1333 or MATH 1323
5. 6h from: CHEM 1013/CHEM 1023, CHEM 1113/CHEM 1123, APSC 1413, APSC 2613, COMP 1113, COMP 1123

- PHYS 1053/ PHYS 1063, PHYS 1513/ PHYS 1523, PHYS 1543 and PHYS 1553 may not be offered to fulfill Major requirements.


## MAJOR IN PHYSICS COMBINED WITH THE CERTIFICATE OF APPLIED SCIENCE

Those students who complete the requirements for the CAS may substitute a total of 6 h from APSC 1133, APSC 2113, APSC 2123, APSC 2213 or APSC 2223 towards their Major in Physics.

## DOUBLE MAJOR: PHYSICS AS FIRST MAJOR

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science (Double Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete s minimum of 54 h in the first major as follows:

1. The Physics Core
2. 9 h additional Physics
3. MATH 1013 and MATH 1023
4. 3 h from: MATH 1333 or MATH 1323
5. 6h from MATH 2723/MATH 2753 or MATH 2013/MATH 2023
6. 6h from: CHEM 1013/CHEM 1023, CHEM 1113/CHEM 1123, APSC 1413, APSC 2613, COMP 1113, COMP 1123

## DOUBLE MAJOR: PHYSICS AS SECOND MAJOR

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science (Double Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 51 h in the second major as follows:

1. The Physics Core
2. 9 h additional Physics
3. MATH 1013 and MATH 1023
4. 3 h from: MATH 1333 or MATH 1323
5. 6h from MATH 2723/MATH 2753 or MATH 2013/MATH 2023

## MINOR IN PHYSICS

The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a minor are required to complete a minimum of 12 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

## POLITICS

Department of Politics; Beveridge Arts Centre, room 219
Ph: 902.585.1506; Fax: 902.585.1070; politics@acadiau.ca
Studying politics focuses your attention on the pressing problems of our times and the potential for changing them. We offer courses that develop the analytical skills and knowledge necessary to understand power, culture, law, policy and government in

Canada. We also offer programs that engage with issues of Global peace, war, environment, development, governance and media. Politics is where great ideas and urgent practice are united.

Programs Offered: Bachelor of Arts with Honours (BAH), Bachelor of Arts with Major (BA), Minor

## POLITICS STREAMS

- Canadian

POLS 2006, POLS 2706, POLS 3063, POLS 3103, POLS 3303, POLS 3463, POLS 3503, POLS 3603, POLS 3703, POLS 3803, POLS 3903, POLS 4103, POLS 4203, POLS 4303, POLS 4403, POLS 4603, POLS 4803, IDST 3103, IDST 3123, IDST 3213

- Comparative

POLS 2893, POLS 2993, POLS 3493, POLS 3593, POLS 3693, POLS 3893, POLS 4193, POLS 4293, POLS 4393, POLS 4693, POLS 4793, POLS 4893

- International Relations

POLS 2683, POLS 2783, POLS 3083, POLS 3183, POLS 3683, POLS 3783, POLS 3883, POLS 3983, POLS 4143, POLS 4483, POLS 4983, IDST 2213, IDST 2223, IDST 4186

- Political Theory

POLS 2343, POLS 2443, POLS 2543, POLS 2643, POLS 3143, POLS 3543, POLS 3683, POLS 4143, POLS 4343, POLS 4443, POLS 4643, POLS 4843, WGST 3023

## HONOURS IN POLITICS

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts with Honours requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 6oh as follows:

1. All of the following: POLS 1303, POLS 1403, POLS 3043, POLS 4996
2. 9 h at the 4000 -level (excluding POLS 4996)
3. 36 h additional Politics courses, with at least 6 h from each of the four streams.

## MAJOR IN POLITICS

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete 120 credit hours including 48h in the Major program as follows:

1. POLS 1303 and POLS 1403
2. 42 h additional Politics courses, with at least 6 h from three of the four streams.

## DOUBLE MAJORS IN POLITICS

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Double Major) requirements outlined in the previous section of this calendar.

## Program Requirements

The requirements are the same for the first and second major. Students must complete a minimum of 36 h in the Major program as follows:

1. POLS 1303 and POLS 1403
2. 3oh additional Politics courses, with at least 6 h each from three of the four streams.

## MINOR IN POLITICS

The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a minor in Politics are required to complete a minimum of 12 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

## Cross-Listed Courses

The following courses may be counted as credit in Politics: IDST 2213, IDST 2223, IDST 2253, IDST 3103, IDST 3123, IDST 3213, IDST 4186, WGST 2913, WGST 3023.

## PSYCHOLOGY

Department of Psychology; Horton Hall, Room 326
Ph: (902) 585-1301; Fax: (902) 585-1078; http://psychology.acadiau.ca/
The Psychology Department at Acadia offers many different undergraduate programs leading to either a BA or BSc degree, with or without Honours. We also offer an Applied Psychology Option for interested students in any of our degree programs and a Neuroscience option (for BSc students only). Students wishing to transfer to the psychology major must have a grade point average of 2.50.

Programs Offered: Bachelor of Arts with Honours (BAH), Bachelor of Science with Honours (BScH), Bachelor of Arts with Major (BA), Bachelor of Science with Major (BSc), Minor

## PSYCHOLOGY CORE

Psychology students must complete 36 h as follows:

1. PSYC 1113, PSYC 1123, PSYC 2013, PSYC 2023
2. MATH 1213, MATH 1223 or MATH 2233, MATH 2243 or MATH 2213, MATH 2223
3. 3 h from PSYC 2113 or PSYC 2123
4. 3 h from PSYC 2133, PSYC 2143, PSYC 2173
5. 3 h from PSYC 2103 or PSYC 2153
6. 9 h Psychology courses at the 3000-4000 level, not including cross-listed courses.

- The same course cannot be used to fulfill both core and psychology electives.

HONOURS CORE (15h)

- PSYC 3023, PSYC 3243, PSYC 4183, PSYC 4996


## LABORATORY-BASED COURSES

- PSYC 3193(A), PSYC 3353(A), PSYC 3363(A), PSYC 3053(N), PSYC 3083(N), BIOL 3063(N)

Note throughout that unless otherwise specified, the same course cannot be used to fulfill more than one requirement.

## HONOURS IN PSYCHOLOGY

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts with Honours or Bachelor of Science with Honours requirements outlined in the previous section of this calendar. Additionally, a minimum grade of B- is required in all courses offered to fulfill the program requirements below.

## Program Requirements

Honours in Psychology is available in a BA or BSc program. Regardless of whether a student is in an Arts or Science degree, they must complete a minimum of 54 h in the Honours program as follows:

1. The Psychology core
2. The Honours core
3. 3 h additional Psychology courses which must be selected from the list of Laboratory-Based courses above.

- Admission to the Honours program is competitive and normally open only to students with a program GPA of 3.33 or better, who have already completed PSYC 3243 with a grade of B- or better. Admission also requires permission of the department and agreement of a faculty member in the department to supervise the thesis. Application is made in the penultimate year, following procedures published by the department.


## MAJOR IN PSYCHOLOGY

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Major) or Bachelor of Science (Major) requirements outlined in the previous section of this calendar. Additionally, a minimum grade of C - is required in all courses offered to fulfill the program requirements below.

## Program Requirements

The requirements for the Major are the same for BA and BSc students. Students must complete a minimum of 45 h in the Major program as follows:

1. The Psychology core
2. 9 h additional Psychology courses, 3 h of which must be at the $3000 / 4000$ level

## MAJOR IN PSYCHOLOGY WITH DOUBLE MINOR

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science requirements outlined in the previous section of this calendar. Additionally, a minimum grade of C- is required in all courses offered to fulfill the program requirements below.

## Program Requirements

This option is available only to BSc students. BSc students completing a PSYC major with double minor must complete a minimum of 39 h in the Major program as follows:

1. The Psychology core
2. 3h additional Psychology courses

## DOUBLE MAJOR

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Double Major) or Bachelor of Science (Double Major) requirements
outlined in the previous section of this calendar. Additionally, a minimum grade of C - is required in all courses offered to fulfill the program requirements below.

## Program Requirements

The requirements for the Double Major are the same for BA and BSc students. Students must complete a minimum of 39 h in the Major program as follows:

1. The Psychology core
2. 3 h additional Psychology courses

## APPLIED PSYCHOLOGY OPTION

The Applied Psychology Option can be added to any of the above degrees, with the following provisos:

1. Requirement 6 of the Psychology core must be fulfilled by selecting courses from the following: PSYC 3183, PSYC 3193, PSYC 3353, PSYC 3363, PSYC 3373, PSYC 3383, PSYC 3623, PSYC 4053, PSYC 4103, PSYC 4423.
2. The "additional Psychology" requirements must be fulfilled by selecting from the following list: PSYC 2183, PSYC 3183, PSYC 3193, PSYC 3353, PSYC 3363, PSYC 3373, PSYC 3383, PSYC 3623, PSYC 4053, PSYC 4103, PSYC 4423, KINE 2433, KINE 3683, KINE 3693
3. At least one of these Psychology Core or "additional Psychology" courses must be a laboratory-based course, selected from those laboratory-based courses indicated with an "(A)". This laboratory course can also fulfill the laboratory requirement for the Honours degree, if applicable.

## NEUROSCIENCE OPTION

The Neuroscience Option can be completed in conjunction with Bachelor of Science in Psychology degree programs by completing the requirements as specified below.

## HONOURS IN PSYCHOLOGY (NEUROSCIENCE OPTION)

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science with Honours requirements outlined in the previous section of this calendar. Additionally, a minimum grade of B- is required in all courses offered to fulfill the program requirements below.

## Program Requirements

Students must complete a minimum of 63 h in the Honours program as follows:

1. The Psychology core
2. PSYC 2133, and one of PSYC 2143 or PSYC 2173 (Note: one of PSYC 2133 or PSYC 2143 will be counted in the Psychology core)
3. Requirement 6 of the Psychology core must be fulfilled by selecting courses from the following: PSYC 3053, PSYC 3083, PSYC 3133, PSYC 3323, PSYC 3383, PSYC 3613, PSYC 4343, PSYC 4413
4. 9 h from PSYC 3053(L), PSYC 3083(L), PSYC 3133, PSYC 3323, PSYC 3383, PSYC 3613, PSYC 4323, PSYC 4343, PSYC 4413, BIOL 2013, BIOL 2023, BIOL 3063(L), BIOL 3143, KINE 4373, CHEM 2713 or CHEM 2773, PHIL 3313
5. At least one of the Psychology core or "additional psychology courses" must be a Laboratory-based course, selected from those Laboratory-based courses indicated with an "(N)". This laboratory course can also fulfill the laboratory requirement for the Honours degree, if applicable.
6. The Honours core ( 15 h )

## MAJOR IN PSYCHOLOGY (NEUROSCIENCE OPTION)

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science (Major) requirements outlined in the previous section of this calendar. Additionally, a minimum grade of C - is required in all courses offered to fulfill the program requirements below.

## Program Requirements

Students must complete a minimum of 48 h in the Major program as follows:

1. The Psychology core
2. PSYC 2133, and one of PSYC 2143 or PSYC 2173 (Note: one of PSYC 2133 or PSYC 2143 will be counted in the Psychology core)
3. Requirement 6 of the Psychology core must be fulfilled by selecting courses from the following list: PSYC 3053, PSYC 3083, PSYC 3133, PSYC 3323, PSYC 3383, PSYC 3613, PSYC 4323, PSYC 4343, PSYC 4413
4. 9 from PSYC $3053(L)$, PSYC $3083(L)$, PSYC 3133, PSYC 3323, PSYC 3383, PSYC 3613, PSYC 4323, PSYC 4343, PSYC 4413, BIOL 2013, BIOL 2023, BIOL $3063(L)$, BIOL 3143, KINE 4373, CHEM 2713 or CHEM 2773, PHIL 3313,
5. At least one of the Psychology core or "additional psychology courses" must be a Laboratory-based course, selected from those Laboratory-based courses indicated with an "( N )".

## DOUBLE MAJOR OR DOUBLE MINOR (NEUROSCIENCE OPTION)

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Science (Major) requirements outlined in the previous section of this calendar. Additionally, a minimum grade of C - is required in all courses offered to fulfill the program requirements below.

## Program Requirements

Students must complete a minimum of 48 h in the Major program as follows:

1. The Psychology core
2. PSYC 2133, and one of PSYC 2143 or PSYC 2173 (Note: one of PSYC 2133 or PSYC 2143 will be counted in the psychology core)
3. Requirement 6 of the Psychology core must be fulfilled by selecting courses from the following list: PSYC 3053, PSYC 3083, PSYC 3133, PSYC 3323, PSYC 3383, PSYC 3613, PSYC 4323, PSYC 4343, PSYC 4413
4. 9 h from PSYC $3053(\mathrm{~L})$, PSYC 3083 (L), PSYC 3133, PSYC 3323, PSYC 3383, PSYC 3613, PSYC 4323, PSYC 4343, PSYC 4413, BIOL 2013, BIOL 2023, BIOL 3063(L), BIOL 3143, KINE 4373, CHEM 2713 or CHEM 2773, PHIL 3313
5. At least one of the Psychology core or "additional psychology courses" must be a Laboratory-based course, selected from those Laboratory-based courses indicated with an " $(\mathrm{N})$ ".

## MINOR IN PSYCHOLOGY

The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a minor in Psychology are required to complete a minimum of 12 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

## Cross-Listed Courses

The following courses may be counted towards major credit in Psychology: BIOL 2013, BIOL 2023, BIOL 3063, BIOL 3143, KINE 2433, KINE 3683, KINE 3693.

## SOCIOLOGY

Department of Sociology; Beveridge Arts Centre, Room 307
Ph: (902) 585-1493; Fax: (902) 585-1070; sociology@acadiau.ca
Sociology is a field of study that involves careful inquiry into the activities of individuals and groups within human societies. The discipline seeks to gain a reasoned understanding of the patterned relationships that make up societies. Most courses emphasize the analysis of our Canadian context and the use of Canadian resources. The department's concern is with the kind of educational experience which will enable continued analysis and understanding of social phenomena beyond the immediacy of the university experience. Students transferring to the Sociology major must have a grade point average of 2.0.

Programs Offered: Bachelor of Arts with Honours (BAH), Bachelor of Arts with Major (BA). Minor

The department offers seven areas of study within the discipline. Students wishing to deepen their understanding of a topic should choose courses within a given field. The areas of strength are:
Anthropology: SOCI 1106, SOCI 1113, SOCI 2113, SOCI 2533, SOCI 2853, SOCI 3223, SOCI 3433, SOCI 3453, SOCI 4113
Criminology: SOCI 2713, SOCI 2723, SOCI 2753, SOCI 3703, SOCI 3733, SOCI 3743, SOCI 4183
Culture and Media: SOCI 2263, SOCI 2533, SOCI 3033, SOCI 3553, SOCI 4113
Gender and Feminism: SOCI 2363, SOCI 2043, SOCI 2853, SOCI 3253, SOCI 3403, SOCI 3803, SOCI 4163, WGST 2913, WGST 2906,
Social Research/Methodology: SOCI 2003, SOCI 2013, SOCI 3103, SOCI 3113, SOCI 3163, SOCI 3433, SOCI 4133
Social Theory: SOCI 2103, SOCI 3013, SOCI 3033, SOCI 3043, SOCI 3053, SOCI 3093, SOCI 4143, WGST 3023
Political Economy/Development: SOCI 2113, SOCI 2533, SOCI 3253, SOCI 3523, SOCI 4123
Work and Occupations: SOCI 2223, IDST 2253, SOCI 3253, SOCI 4153

## HONOURS IN SOCIOLOGY

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts with Honours requirements outlined in the previous section of this calendar. Additionally, a maximum of 6 hours of SOCI at the 1000 level may be included in this degree and a maximum of 6 h of IDST courses may be counted as Sociology credits.

## Program Requirements

Students must complete a minimum of 6oh in the Sociology Honours program as follows:

1. 6 from SOCI 1006, SOCI 1106, SOCI 1013, SOCI 1023, SOCI 1033, SOCI 1113, WGST 1413 (only 6h from SOCI 1006/SOCI 1013/SOCI 1033; only 6h from SOCI 1106/SOCI 1023/SOCI 1113)
2. All of the following (24h): SOCI 2003, SOCI 2013, SOCI 2103, SOCI 3013, SOCI 4003, SOCI 4996
3. 3 h from: SOCI 3033, SOCI 3043, SOCI 3093, WGST 3023
4. 3 h from: SOCI 3103, SOCI 3113, SOCI 3163, SOCI 3433
5. 3 h from: SOCI 4113, SOCI 4123, SOCI 4133, SOCI 4143, SOCI 4153, SOCI 4163, SOCI 4173, SOCI 4183, SOCI 4193, SOCI 4413
6. 24h additional Sociology

- Admission to the honours program is normally open only to students with a program GPA of 3.25 or better, and at least a B- in all Sociology credits. Admission also requires permission of the department and agreement of a faculty member in the department to supervise the thesis.
- Students are encouraged to take SOCI 2003 and SOCI2013 in their second year.


## HONOURS IN SOCIOLOGY WITH SECOND MAJOR

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts with Honours (Double Major) requirements outlined in the previous section of this calendar. Additionally, a maximum of 6 hours of SOCI at the 1000 level may be included in this degree and a maximum of 6 h of IDST courses may be counted as Sociology credits.

## Program Requirements

Students must complete a minimum of 54 h in the Sociology Honours program as follows:

1. 6 h from SOCI 1006, SOCI 1106, or two of SOCI 1013/SOCI 1023/SOCI 1033/SOCI 1113, WGST 1413 (only 6h from SOCI 1006/SOCI 1013/SOCI 1033; only 6 h from SOCI 1106/SOCI 1023/SOCI 1113);
2. All of the following: SOCI 2003, SOCI 2013, SOCI 2103, SOCI 3013, SOCI 4996
3. 3 h from: SOCI 3033, SOCI 3043, SOCI 3093, WGST 3023
4. 3 h from: SOCI 3103, SOCI 3113, SOCI 3163, SOCI 3433; SOCI 4003
5. 3 h from: SOCI 4113, SOCI 4123, SOCI 4133, SOCI 4143, SOCI 4153, SOCI 4163, SOCI 4173, SOCI 4183, SOCI 4193, SOCI 4413
6. 18 h additional Sociology (54h), no more than 6 hours at the 1000 level.

## MAJOR IN SOCIOLOGY

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Major) requirements outlined in the previous section of this calendar. Additionally, a maximum of 6 hours of SOCI at the 1000 level may be included in this degree.

## Program Requirements

Students must complete a minimum of 48 h in the Sociology Major program as follows:

1. 6 h from SOCI 1006, SOCI 1106 or two of SOCI 1013/1023/1033/1113 (only 6h from SOCI 1006/1013/1033; only 6h from SOCI 1106/1023/1113);
2. All of the following: SOCI 2003, SOCI 2013, SOCI 2103
3. 3 h from: SOCI 3013, SOCI 3033, SOCI 3043, SOCI 3093, WGST 3023
4. 3 h from: SOCI 3103, SOCI 3113, SOCI 3163, SOCI 3433, SOCI 4413
5. 24h additional Sociology

- Students are encouraged to take SOCI 2003 and SOCI2013 in their second year.


## BACHELOR OF ARTS WITH DOUBLE MAJOR IN SOCIOLOGY

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Double Major) requirements outlined in the previous section of this calendar. Additionally, a maximum of 6 hours of SOCI at the 1000 level may be included in this degree.

## Program Requirements

Students must complete a minimum of 48 h in the Sociology Major as follows:

1. 6 h from SOCI 1006, SOCI 1106 or two of SOCI 1013/1023/1033/1113 (only 6h from SOCI 1006/1013/1033; only 6h from SOCI 1106/1023/1113);
2. SOCI 2003, SOCI 2013, SOCI 2103, SOCI 3343, SOCI 3433, SOCI 4413
3. 3 h from: SOCI 3013, SOCI 3033, SOCI 3043, SOCI 3093, WGST 3023
4. 3 h from: SOCI 3103, SOCI 3113, SOCI 3163
5. 18 h additional Sociology

- Students are encouraged to take SOCI 2003 and SOCI2013 in their second year.


## MINOR IN SOCIOLOGY

The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a minor in Sociology are required to complete a minimum of 12 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study. Cross-Listed Courses
The following courses may be counted towards credit in Sociology: COMP 2903, CREL 2443, CREL 2533, CREL 3123, CREL 3693, IDST 2253, IDST 2906, IDST 3123, POLS 4793, PSYC 2103, WGST 1413, WGST 2906, WGST 2913, WGST 3023, WGST 3123, WGST 3503, WGST 4913.

## SPANISH STUDIES/ESTUDIOS HISPANICOS

Department of Languages and Literatures; Beveridge Arts Centre, Room 333
Ph: (902) 585-1500; Fax: (902) 585-1070; http://languages.acadiau.ca/
Acadia offers a variety of Spanish classes and facilities to meet your interests and needs. Classes are small, generally fewer than 30 students, who learn through structured activities, classroom participation, and multimedia presentations. Students are able to function in a Spanish-speaking environment by the end of their first year and can achieve fluency in both spoken and written Spanish after three years of study. Emphasis is placed on the communication skills of speaking, listening, reading and writing, and on exposure to elements of the Spanish and Latin American cultures.

Programs Offered: Bachelor of Arts with Major (BA), Minor, Program of Proficiency in Spanish

## MAJOR IN SPANISH

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Major) requirements outlined in the previous section of this calendar. Additionally, students must successfully complete an approved course of study, for a minimum of one semester ( 15 h ) at a Spanish-speaking university. Specifically, students will take courses in Spanish Language, Spanish and Spanish American Civilization and Culture, Spanish and Spanish American Literature, and Translation that are equivalent to those required for the Major program in Hispanic Studies at Acadia University.

- Students with some knowledge of Spanish should check with faculty to determine their entrance level.


## Program Requirements

Students must complete a minimum of 42h in the Major program as follows:

1. All of the following: SPAN 1013, SPAN 1023, SPAN 2013, SPAN 2023, SPAN 2113, SPAN 2123, SPAN 3103, SPAN 3203
2. 3 h from SPAN 3213 or SPAN 3223 or equivalent
3. 3 h from SPAN 3313 or SPAN 3323 or equivalent
4. 3 h from SPAN 3413 or SPAN 3423 or equivalent

## Direct Exchange Program with the University of La Rioja

Students who have a program GPA of 3.0 are accepted into the direct exchange program with the Universidad de La Rioja where they may take 4 or 5 courses in Spanish each semester. In selecting courses and organizing their exchange program, students must consult the Coordinator of the Study Abroad Program.

In the first semester, students register in language courses at The Language Centre of the University of La Rioja (non-academic courses will not count as transfer credits). This Centre, or Fundación, offers Spanish language courses to help exchange students improve their language skills and make the most of their exchange experience. This program offers 3 hours of Spanish Language instruction per day from Monday to Friday. There are currently two levels of language courses offered by the Centre: intermediate and advanced. The Fundación tests students and places them at their appropriate level. These language courses will not be counted towards the Major program in Hispanic Studies. Instead they will count as transfer credits for electives of the Bachelor of Arts and for the 6 h language requirement of the Arts Core.

In the second semester, students proceed to register in courses listed in the academic calendar of the Universidad de La Rioja. These courses, to be selected with and approved by the Coordinator of the Study Abroad Program, will function as courses equivalent to the requirements for Spanish Majors at Acadia University.

## DOUBLE MAJOR: SPANISH AS SECOND MAJOR

A Second Major in Spanish requires the completion of a minimum of 42 h in the second major following the same requirements as the Major above.
Students with a keen interest in languages who already possess strong skills in French, German, or Spanish may wish to consider pursuing a major in one language with a double minor in the other two. Please note that it is only possible to meet the requirements for this combination within four years if an appropriate choice of credits is made from the beginning of the first year. You should consult as early as possible with a member of the Department of Languages and Literatures if you are considering this course of study.

## BACHELOR OF BUSINESS ADMINISTRATION WITH MAJOR IN SPANISH

See the BBA requirements section in this calendar

## MINOR IN SPANISH

The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a minor in Spanish are required to complete a minimum of 12 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study

## PROGRAM OF PROFICIENCY IN SPANISH

This program provides students with an internationally-recognized certificate in Spanish. As well as completing the 24h required for the minor (SPAN 1013, 1023, 2013, 2023, 2113, 2123, 3103, and 3203), students will be required to pass an external examination.

## Cross-Listed Courses

The following courses may be counted towards major credit in Spanish: IDST 3463, IDST 3473.

## THEATRE

Department of English and Theatre; Beveridge Arts Centre, Rm 415
Tel: (902) 585-1502; english.theatre@acadiau.ca
Program(s) Offered: Bachelor of Arts with Major (BA)
The four-year Theatre program offers students two streams: one in Performance and one in Production. There is no minor requirement for the Theatre degree.

The Performance stream offers students a solid foundation in acting, movement, voice, theatre history and dramatic literature and includes the opportunity to perform or to work backstage in the productions of the Acadia Theatre Company.

The Production stream offers students the opportunity to focus their studies on the backstage elements of theatre instead of performance. These students will also carry out the backstage work of the Acadia Theatre Company.

## MAJOR IN THEATRE (PERFORMANCE)

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 60 h in the Theatre Major as follows:

1. THEA 1483
2. 3 h from THEA 2823 or THEA 2833
3. THEA 2213, THEA 2223, THEA 2753, THEA 2763, THEA 2853, THEA 2863, THEA 3313, THEA 3323, THEA 3853, THEA 3863, THEA 4413, THEA 4423
4. 12h from THEA 2803, THEA 2813, THEA 2823 or THEA 2833 (whichever has not been taken in fulfilment of category 2), THEA 2883, THEA 2893, THEA 3133, THEA 3243, THEA 3883, THEA 3893, THEA 3923, THEA 3973, THEA 4013, THEA 4023, THEA 4313, THEA 4323, THEA 4833, THEA 4843, ENGL 2286* (or ENGL 2183, ENGL 2193)
5. A minimum of 6 credit hours from THEA 1001 (1h) and THEA 2002 (2h)

## MAJOR IN THEATRE (PRODUCTION)

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 6oh in the Theatre Major as follows:

1. THEA 1483
2. 3 h from THEA 2823 or THEA 2833
3. 12 h from THEA 2803, THEA 2813, THEA 2823 or THEA 2833 (whichever has not been taken in fulfilment of category 2), THEA 2883, THEA 2893, THEA 3133, THEA 3243, THEA 3883, THEA 3893, THEA 3923, THEA 3973, THEA 4013, THEA 4023, THEA 4313, THEA 4323, THEA 4833, THEA 4843, ENGL 2286* (or ENGL 2183, ENGL 2193)
4. 36 h from APSC 1073, APSC 1223, ART 1813, ART 1823, ART 2013, ART 2023, ART 2033, ART 2043, ART 3013, ART 3023, ART 3033, BUSI 1703, BUSI 2413, CLAS 2013, CLAS 2023, CLAS 2273, CLAS 2283, CREL 3693, HIST 2493, HIST 3713, MUSI 1013, MUSI 1063, MUSI 1253, MUSI 2003, MUSI 2163, MUSI 3003, MUSI 3713, MUSI 4283, PHIL 2103, POLS 3943
5. A minimum of 6 credit hours from THEA 1001 (1h) and THEA 2002 (2h)

* The extra 3 h in a 6 h course will be subsumed in the 3 h of electives


## MINOR

The requirements for a minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a minor in Sociology are required to complete a minimum of 12 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

## WOMEN'S AND GENDER STUDIES

Office of the Dean of Arts; Beveridge Arts Centre, Room 224
Coordinator: Dr. Anne Quéma (anne.quema@acadiau.ca)
Women's and Gender Studies emphasizes the importance of gender as a category of critical analysis in areas such as scholarly activity, education, social relationships, cultural expression, and politics. Students are encouraged to examine established theoretical frameworks, institutions, ideologies, history, identity, science, language and culture while exploring feminist alternatives.
Programs Offered: Bachelor of Arts with Honours (BAH), Bachelor of Arts with Major (BA), Minor

## HONOURS IN WOMEN'S AND GENDER STUDIES

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts with Honours requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 48 h in the Honours program as follows:

1. WGST 1413 WGST 2913, WGST 3023 and WGST 4913
2. 6h from: SOCI 2003, CREL 3123, CREL 3693, POLS 2013 or similar research methods course by permission
3. WGST 4996 (thesis)
4. 24 h in WGST or cross-listed courses, with a minimum of 12 h at the 3000/4000 level

## MAJOR IN WOMEN'S AND GENDER STUDIES

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the
Bachelor of Arts (Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 42 h in the Major program as follows:

1. WGST 1413, WGST 2913, WGST 3023 and WGST 4913
2. 3 h from: SOCI 2003, CREL 3123, CREL 3693, POLS 2013 or similar research methods course by permission
3. 27 h in WGST or cross-listed courses, with a minimum of 12 h at the 3000/4000 level

## SECOND MAJOR IN WOMEN'S AND GENDER STUDIES

## Graduation Requirements

In addition to the Program Requirements listed below, students must also satisfy the Bachelor of Arts (Double Major) requirements outlined in the previous section of this calendar.

## Program Requirements

Students must complete a minimum of 36 h in the Double Major program as follows:

1. WGST 1413, WGST 2913, WGST 3023 and WGST 4913
2. 3 h from: SOCI 2003, CREL 3123, CREL 3693, POLS 2013 or similar research methods course by permission
3. 21 h from the Women's and Gender Studies courses, with a minimum of 12 h at the 3000/4000 level

## MINOR IN WOMEN'S AND GENDER STUDIES

Multidisciplinary Minors offer an alternative to completing the Minor requirements for a degree program in a single discipline. The requirements for a Minor vary by faculty and program(s) of study. BA students are required to complete a minimum of 24 h in the Minor program, while BSc students completing a multidisciplinary Minor are required to complete a minimum of 18 h in the Minor program. Students pursuing a Minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

A minor in Women's and Gender Studies requires completion of at least 9 credit hours in WGST as follows: WGST 1413, WGST 2913, and WGST 3023. The balance of the minor is to be chosen from the list of courses below. With the exception of WGST and IDST courses, no more than 12 h can be in a single discipline. All courses offered towards this minor must be completed with a grade of C - or better.

## Cross-Listed Courses

The following courses may be counted towards credit in Women's and Gender Studies: ART 3513, BUSI 3753, CLAS 2573, CLAS 2663, CLAS 3123, CLAS 3443, CLAS 3573, CLAS 3673, CREL 2533, CREL 2553, CREL 3123, CREL 3693, ECON 3883, EDUC 42L3, EDUC 4633, ENGL 3553, ENGL 3723, ENGL 3833, ENGL 3843, ENGL 3903, ENGL 3973, ENGL 3983, FRAN 3203, HIST 2123, HIST 2133, HIST 2263, HIST 2553, HIST 2603, HIST 3393, HIST 3493, HIST 3543, HIST 3633, HIST 3643, IDST 1213/HIST 1913, IDST 3123, KINE 4783, KINE 4883, MUSI 4243, MUSI 4283, NUTR 2323, PHIL 2233, POLS 2013, POLS 2706, POLS 3013, POLS 3513, POLS 4883, PSYC 2163, PSYC 2183, PSYC/WGST 2193, SOCI 2323, SOCI 2343, SOCI 2363, SOCI 2403, SOCI 2633, SOCI 2853, SOCI 3143, SOCI 3183, SOCI 3223, SOCI 3253, SOCI 3403, SOCI 3803, SOCI 4163, THEA 3973.

## WORLD LITERATURES

Office of the Dean of Arts; Beveridge Arts Centre, Room 224
http://arts.acadiau.ca/
Program Offered: Minor

## MINOR IN WORLD LITERATURES

Multidisciplinary minors offer an alternative to completing the minor requirements for a program in a single discipline. The requirements for a minor vary by faculty and
program(s) of study. BA students are required to complete a minimum of 24 h in the minor program, while BSc students completing a multidisciplinary minor are required to complete a minimum of 18 h in the minor program. Students pursuing a minor should consult with their Academic Advisor to ensure that they will meet the requirements for their specific program of study.

A minor in World Literatures requires the completion CLAS 2573 and CLAS 3573 as well as the requisite number of additional credit hours from the list of courses below. No more than 12 h can be in a single discipline. All courses offered towards this minor must be completed with a grade of C - or better.

## Cross-Listed Courses

The following courses may be counted towards credit in the World Literatures minor: CLAS 2123, CLAS 3423, ENGL 3663, ENGL 3673, ENGL 3683, ENGL 3693, ENGL 3743, ENGL 3883, ENGL 3893, FRAN 2113, FRAN 2123, FRAN 3133, FRAN 4503, FRAN 4713 , FRAN 4823, FRAN 4913, FRAN 4923, GERM 2913, GERM 2923, IDST 2423, IDST 3463, PHIL 3013, SPAN 3213, SPAN 3223.

## Graduate Programs

The following section outlines the requirements for each graduate program at Acadia. Programs are listed alphabetically. Courses are outlined in the next section.

## APPLIED GEOMATICS (MSc)

Department of Earth and Environmental Science; Huggins Science Hall, Room 327 Ph: (902) 585-1312; Fax: (902) 585-1816; ian.spooner@acadiau.ca

The Master of Science in Applied Geomatics is jointly offered by the Nova Scotia Community College and Acadia University. It is a two-year program of collaborative coursework/research and data interpretation, where students spend normally: two terms at the Nova Scotia Community College (Centre of Geographic Sciences-CoGS and/or Applied Geomatics Research Group-AGRG), two terms at Acadia University and a further two terms on research at either one or both institutions. Students will complete a Research Thesis or a Research Project under the joint supervision of faculty members from Acadia University and AGRG-CoGS. Students will become skilled in the assembly, analysis, interpretation and presentation of biological, geological or environmental data addressing an approved research subject and problem.

The fundamental relevance of this program is that its graduates will be fully competent to tackle existing or predicted environmental problems, from solid theoretical and practical foundations, using a variety of skills, and an array of new technologies.
Graduates of this program will become society and industry leaders in: mapping, planning, analysis, understanding and stewardship of the natural environment.

## Admission Requirements

Candidates for admission to this program must possess an Honours degree, or a four- year Bachelor's degree, or its equivalent, from an approved university. Undergraduate degrees in Biology, Earth and Environmental Science and Physical Geography are most compatible with this degree. Candidates should have at least a B- average in relevant disciplines in the last two undergraduate years. Students currently enrolled in the NSCC Geomatics diploma program are eligible to apply to this MSc degree program, subject to availability of positions, faculty advisors and adequate funding. Acceptance of a qualified candidate will also be contingent on letters of support from appropriate referees.

## Application Deadline

Students normally apply for entry into the M.Sc. AG program while enrolled in the NSCC Geomatics diploma program. Students in this program will be jointly co-advised by one faculty member from Acadia and one from NSCC Applied Geomatics Research Group (AGRG). Students must contact either Dr. Ian Spooner (Acadia University, ian.spooner@acadiau.ca; 902.585.1312) or Dr. Tim Webster (AGRG, timothy.webster@nscc.ca; 902.825.5475) to determine if funded, jointly supervised projects are available at the time of application.

## MASTER OF SCIENCE IN APPLIED GEOMATICS (RESEARCH THESIS)

Term one (Fall Term at NSCC-CoGS): Students are enrolled in the Advanced Diploma in Geomatics (GIS, Remote Sensing or Marine Geomatics)
Term two (Winter Term at NSCC CoGS)
Students are enrolled in the Advanced Diploma in Geomatics (GIS, Remote Sensing or Marine Geomatics)
Term three (Summer Term at NSCC -AGRG and/or Acadia dependent on research interest)
GISY 6400 Major Project (Capstone: Requirements for the NSCC Advanced Diploma completed.). Thesis research GEOL/BIOL 5960 commences
Term four (Fall Term at Acadia and/or NSCC -AGRG dependent on research interest) Two courses at Acadia University approved by the supervisory committee at least one of which must be at the 5000 level. Applied Geomatics Seminar GEOM 5903. Thesis research GEOL/BIOL 5960 continues.

Term five (Winter Term at Acadia and/or NSCC -AGRG dependent on research interest) Thesis research GEOL/BIOL 5960 continues.
Term six (Summer Term at Acadia and/or NSCC -AGRG dependent on research interest) Thesis research GEOL/BIOL 5960 completed.

## MASTER OF SCIENCE IN APPLIED GEOMATICS (RESEARCH PROJECT)

Students who choose to complete a research project rather than a thesis Must Complete Terms One, Two and Three as described under the Research Thesis option. They must complete the course work described under the Research Thesis option in Terms 4 and 5 and two additional courses from the approved list of graduate courses at Acadia University. They must also complete the Research Project course (GEOM 5990).

Term four (Fall Term at Acadia and/or NSCC dependent on research interest) Applied Geomatics Research Project (GEOM 5990) commences. Course work continues. Term five (Winter Term at Acadia and/or NSCC dependent on research interest) Applied Geomatics Research Project (GEOM 5990) continues. Course work completed. Term six (Summer Term at Acadia and/or partly at NSCC dependent on research interest) Applied Geomatics Research Project (GEOM 5990) completed.

## BIOLOGY (MSc)

Department of Biology; Biology Building, Room 302
Ph. (902) 585-1334; Fax: (902) 585-1059; biology@acadiau.ca
Within the graduate program, emphasis is placed on research rather than course work. Individual programs of study are determined by the candidate's supervisor and committee. The advisory committee consists of the supervisor and at least two other faculty members or research associates. Applicants are advised to contact their
prospective supervisor directly at the time of application. Acceptance of a qualified candidate is made primarily on the recommendation of the prospective supervisor.

## MASTER OF SCIENCE IN BIOLOGY

1. BIOL 5013 and usually BIOL 5023
2. 6 h advanced courses in biology from one of BIOL 5033, BIOL 5043 or BIOL 5053 ,
3. Additional courses as may be required by the committee supervising the candidate's program, regular meetings with the advisory committee at which time the student's progress is reviewed. This includes, but is not limited to, an initial meeting within two weeks of registration to advise the student on course requirements and a meeting within five months of registration to evaluate a research proposal submitted by the student,
4. A thesis proposal in biology to be taken generally within six months of initial registration,
5. A graduate research and thesis, and an oral defence of the thesis.

## Courses

Tutorial courses are designed according to the special needs of the student(s) enrolled in them. Candidates should also consult the undergraduate calendar for advanced undergraduate courses. Such courses may be taken for credit in the graduate program.

## Special Research Facilities

Special research facilities on campus include growth chamber facilities and culture rooms; a low level radiation laboratory, including a liquid scintillation counter; a Coulter counter; complete light microscope units including phase contrast, inverted and fluorescence microscopes; scanning and transmission electron microscope units; infrared gas analyzers; electrophoresis units for protein and nucleic acid research; GPS and GIS facilities; microbial fermenters. The laboratories in animal physiology, histology, and developmental anatomy are well-equipped. The W. Garfield Weston Research Centre provides a modern animal holding facility. The department owns land on Bon Portage Island, Heckman's Island, Brier Island, Partridge Island, Seal Bridge Light, Waterloo Lake, and Hemeon's Head. Acadia University is also partnered with Ducks Unlimited Canada and Irving Oil Ltd. to manage and offer research facilities at the Beaubassin Research Centre near Aulac, NB.

Bon Portage Island is a low-lying exposed offshore island which supports rich, rocky inter-tidal diversity and a large colony of nesting Leach's storm-petrels. The Island is home to the Richardson Field Station in Biology and the Atlantic Bird Observatory. The Island facilities can accommodate 30 or more individuals, and is used extensively for field courses and research.

The Animal Care Facility is a newly constructed facility that has state-of-the-art suites for maintaining and studying a variety of marine, aquatic and terrestrial species under carefully controlled conditions of temperature, humidity, light, etc.

The EC Smith Herbarium houses more than 200,000 specimens, and is the most comprehensive collection of vascular plants and fleshy fungi in Atlantic Canada. Specimens within the herbarium provide the basis for honours and masters theses at Acadia, as well as serving as an important reference collection for botanists world-wide.

The K.C. Irving Environmental Science Centre and Harriet Irving Botanical Gardens is a state-of-the art research and community Centre. It is equipped with research laboratories, molecular genetics laboratory, greenhouse, phytotron and growth chamber space in addition to botanical garden and the Irving Biodiversity Collection.

The Acadia Museum, including the R. W. Tufts Laboratory in Ornithology and the L. R. Fairn Wildlife Laboratory, houses about 4,500 bird and mammal specimens. Again, these teaching and reference collections provide the basis for a number of research projects.

The Acadia Centre for Estuarine Research, an outgrowth of biological research, is a separate unit within the Faculty of Pure and Applied Science. The Centre is intended to stimulate and coordinate multi-disciplinary research on the estuarine regions of the Bay of Fundy. Emphasis is generally on fundamental research and the work is undertaken in cooperation with other scientific agencies in the Maritime Provinces, particularly the Bedford Institute of Oceanography and the St. Andrews Biological Station. One major objective of the Centre is to attract scientists from other universities and research laboratories to work in cooperation with those at Acadia.

## Financial Assistance for Biology Graduate Students

In addition to the awards found in the graduate awards section of this calendar, the Biology Department offers the following support:

The Alden B. Dawson Scholarship - One or two scholarships are awarded annually for advanced study in biology, to a master's student or to an honours student. Dr. Alden B. Dawson (BA, Acadia 1915; PhD, Harvard, 1918; DSC, Acadia 1938) was a distinguished professor of anatomy and zoology at Harvard University.

The Dr. J. Murray Beardsley Research Scholarship in Biology - Two scholarships of approximately $\$ 2500$ each, provided by the Grace Beardsley Trust Fund, are awarded on the recommendation of the Biology Department to students in the honours biology program. The scholarships are awarded at the end of the third year and are intended to enable the recipients to participate in a summer research program that will form the basis of their honours thesis. If in any year either scholarship is not awarded to an honours student, it may be awarded to a student enrolled in the master's program in biology. Letters of application are to be submitted to the head of the Department of Biology no later than March 15 of each year.

The Carl H. McCarthy and Margaret Godfrey McCarthy Research Scholarship in Wildlife Biology: A $\$ 2645$ scholarship awarded on the recommendation of the Department of Biology to a graduate student in wildlife biology. The scholarship may be held for one or two semesters, during the summer, fall, or winter sessions, and is intended to enable the student to concentrate on research and thesis preparation. In any year the fund may be halved to provide two scholarships, both of which will carry the above name.

The Robie Tufts Research Scholarship in Biology: A \$2962 scholarship awarded on the recommendation of the Department of Biology to a MSc student specializing in ornithology. The scholarship is intended to assist the student in thesis research, and may be awarded for either the summer or fall/winter sessions. If in any year there is no qualified student in ornithology, the scholarship may be awarded to any graduate or undergraduate research student in biology.

## CHEMISTRY (MSc)

Department of Chemistry; Elliott Hall Rm. 217
Ph: (902)585-1242; Fax: (902)585-1114; chemistry@acadiau.ca

## Admission Note

Students not having an Honours degree (or equivalent) must complete sufficient courses with satisfactory standing to give them the equivalent of an Honours degree in chemistry.

## MASTER OF SCIENCE IN CHEMISTRY

Students must complete 12 hours of course credit (4 courses) toward the MSc degree in Chemistry.

1. CHEM 5013 and CHEM 5023
2. Two elective courses will be chosen in consultation with the thesis advisor, and at least one of these must be 5000-level.
3. In addition to course work, all students must complete CHEM 5010 and CHEM 5960 . Research on a thesis under the supervision of a member of faculty is obligatory. However, this research project may be done in an industrial or other external setting as a collaborative partnership with a faculty member within the Department of Chemistry.

## Courses

Chemistry courses will normally be offered in alternate years or when there is sufficient demand.

## Graduate Research Seminars

Review and discussion of research projects in progress and related literature. Graduate students are required to attend all departmental seminars.

## Special Research Facilities

The chemistry department laboratories are equipped with standard equipment for research in chemistry and biochemistry. The Acadia Centre for Microstructural Analysis (ACMA), funded by the Canadian Foundation for Innovation (CFI), provides more sophisticated state-of-the-art equipment for surface analysis which includes 300 MHz NMR, FTIR, STM, AFM, SEM, TEM, confocal microscope and epi-fluorescence microscope. The department maintains close contacts with the Agriculture Canada Research Station in Kentville; the Institute for Marine Biosciences (National Research Council), Halifax; the Fisheries Research and Technology Laboratory, Dalhousie University (Daltech); the School of Biomedical Engineering (Dalhousie University), Steacie Institute for Molecular Sciences (National Research Council) Ottawa, the Department of Food Science (University of Guelph), and the Departments of Chemistry at the University of Western Ontario, University of Guelph, and the University of Ottawa.

## COMPUTER SCIENCE (MSc)

Jodrey School of Computer Science; Carnegie Building, Room 310
Ph: (902) 585-1331; Fax: (902) 585-1067; cs @acadiau.ca

## Admission

In general, students required to make-up more than three undergraduate computer science courses will not be admitted. Individuals requiring more make up courses may be considered based on their special research interests and preparation.

## Application Deadline

Applications are processed as they are received. The application deadline for admission in September is May 1. Applications received by February 1 receive preference for funding. The application deadline for January is September 1.

## MASTER OF SCIENCE IN COMPUTER SCIENCE

1. Three lecture courses (9h) chosen from at least two of the following three areas: theory (COMP 5013, COMP 5023, COMP 5033), applications (COMP 5113, COMP 5123, COMP 5133), and systems (COMP 5213, COMP 5223, COMP 5233).
2. COMP 5913, or another lecture course, or a cross-listed course
3. COMP 5960

Students must have a supervisor at all times. An initial supervisor will be assigned during the admission process. The supervisor will approve certain decisions related to the course selection described below, direct research related to the thesis topic, evaluate the student's progress, and help to select members of the thesis examining committee.

The program normally requires two years of study. The School of Computer Science is not obliged to provide office space for students who have been registered for more than two years (three years for students who take the Co-op program).

Graduate students requiring undergraduate makeup courses need to complete those courses by the end of the first year (unless there is a scheduling conflict, in which case they have to follow the advice provided by the supervisor and the Graduate Coordinator). In some instances, students may be given more time to complete the undergraduate requirements. However, all undergraduate and graduate level courses must be completed by the end of the second year with a grade of B- or better.

Graduate students must prepare a short formal thesis proposal to be approved by the School. The proposal must be submitted at least six months prior to the thesis defense. For details on graduate student rights and responsibilities, please see
http://cs.acadiau.ca/

## Financial Assistance

See the Graduate Awards section of this calendar. In addition, prospective graduate students are strongly urged to apply for any non-university awards. Students who are Canadian citizens or permanent residents are urged to apply for Natural Sciences and Engineering Research Council Awards.

Citizens of Commonwealth countries should make application in their own countries for Commonwealth Scholarships for tenure at Acadia University.

## Co-operative Education

A Co-operative Education Option is available to students who are enrolled in the Master of Science in Computer Science program. Co-op offers eight months of work experience in industry while students are completing the requirements for their degree. Students must complete two 4-month Co-op work terms to graduate with the Co-op Option. Work terms are non-credit courses, graded as pass or fail, and are over and above the required courses for the degree. They are not considered as replacement courses. Students enroll in Co-op in September of their first year of study. Two terms of study must be completed prior to the student's first Co-op term. Co-op terms must be completed prior to the student's final full term of study.

## EDUCATION (MEd)

School of Education; Seminary House and Emmerson Hall
Ph: (902) 585-1229; Fax: (902) 585-1071; infoed@ acadiau.ca
The School of Education offers four programs leading to MEd degrees in Curriculum Studies, Counselling, Inclusive Education, and Leadership.

The Master of Education in Curriculum Studies is designed for teachers and administrators who wish to engage in research and advanced study in curriculum. In addition to the general program in curriculum studies, concentrations are available in science, math and technology; and learning and technology.

Science, Math, and Technology - This program is designed for teachers at any grade level with an interest in mathematics, or science teaching in the context of a society that has been transformed by technology.
Learning and Technology - this program focuses on the application of information and communication technologies to teaching and learning in schools and other educational contexts. The emphasis of the program is on gaining an appreciation of the potential that technology holds for education as well as a critical understanding of the impact and implications of its application.

The Master of Education in Counselling is intended for teachers pursuing a career in school counselling and others pursuing a career in counselling through various agencies. Full-time students begin the program in July and generally study for 14 months if following the non-thesis route. Thesis students should expect to spend additional time in their program.

The Master of Education in Inclusive Education is intended for individuals possessing some background in inclusive schooling and wishing to prepare for leadership roles in the area of inclusive education.

The Master of Education in Leadership explores concepts of leadership, organization, social justice, democratic action, equity, empowerment and change.

Master of Education programs are offered on a full-time and part-time basis. Both the full-time counselling and inclusive education programs begin with a summer session. Graduate students in Education should be aware that their degree will normally include a combination of face-to-face and online courses. Face-to-face courses are offered through a variety of models including: three hours once a week over 12 weeks, 4 weekends (Friday night and Saturday), 6 Saturdays, and two- and three-week intensive courses in the summer.

## Admission Requirements

1. A Bachelor of Education degree or its equivalent (e.g., NS Teachers College plus an undergraduate degree) for the School Stream in Counselling or a relevant undergraduate degree for those pursing the Agency Stream in Counselling, with at least a B ( $73-76 \%$ ) average in the BEd program or in the final two years of full-time equivalent study is required.
2. Two years of paid, full-time equivalent, post-degree teaching or related experience is required. Related experience for the MEd Counselling program includes work in a social service capacity.
3. Two arm's length references from persons conversant with the applicant's academic and professional abilities are required. One is to be an academic reference from a recent instructor/teacher/professor. The other is to be a professional reference from an individual familiar with the applicant's professional performance. If the applicant has not taken a course (undergraduate or graduate) in the last five years, two professional references may be submitted. This is the only circumstance in which two professional references are acceptable.

MEd (Counselling) Additional Admission Requirements:
a) Applicants who do not hold a Bachelor of Education degree or its equivalent and seek admission to the MEd (Counselling) program for purposes other than school counselling must hold a minimum of a four-year undergraduate degree with at least a B ( $73-76 \%$ ) average in the final two years of full-time equivalent study and fulfill all other requirements.
b) Applicants must provide a letter of intent outlining their motivations and aspirations in reference to the counselling program.
c) Applicants must participate in an interview as part of the application review process.
The graduate application process is competitive. Applicants must have the equivalent of two years of full-time, paid, relevant experience following completion of their four-year undergraduate degree. The two full-time equivalent (FTE) years may be accumulated over a period longer than two years. Relevant work experience for those applying to the School Counselling stream includes teaching and/or other related work. Relevant work experience for those applying to the Agency stream is 'helping-focused' employment in social services areas (that calls for strong interpersonal and communication skills). Relevant volunteer work in addition to the two FTE years will be considered an asset. Please note that study cannot be not counted as related experience. For mature applicants who started their degree(s) later in life, consideration will be given to paid work prior to commencement of post-secondary studies.

NOTE: WITH THE EXCEPTION OF MATURE APPLICANTS, THOSE WHO DO NOT HAVE THE REQUIRED TWO FTE YEARS OF PAID, RELEVANT, POSTUNDERGRADUATE DEGREE WORK EXPERIENCE WILL NOT BE CONSIDERED IN THE REVIEW PROCESS.

## MEd (Inclusive Education) Additional Admission Requirement

a) Applicants must submit a letter of intent describing the nature and focus of study within Inclusive Education they wish to pursue. This letter should include a discussion of relevant academic study and professional experience related to the applicant's program interests.

## MEd (Leadership) Additional Admission Requirements:

a) Applicants to the MEd (Leadership) who do not hold a Bachelor of Education degree or its equivalent must hold a four-year ( 20 full credits) undergraduate degree.
b) Applicants must submit a letter of intent describing the nature and focus of study they wish to pursue. This letter should include a discussion of relevant academic study and professional experience related to the applicant's program interests.

## MEd (Curriculum Studies) Additional Admission Requirement

a) Applicants must submit a letter of intent describing the nature and focus of study they wish to pursue. This letter should include a discussion of relevant academic study and professional experience related to the applicant's program interests.

## Transfer Credits

Students may, with approval of the Director or the Graduate Coordinator, transfer a maximum of 12 credit hours from other institutions. Normally, courses must be approved in advance. Requests to transfer courses must be made, in writing, to the Registrar of Acadia University and must include a copy of the official course description.

## Application Deadlines

- December 1 is the deadline for applications to the MEd (Counselling) program. Applications that arrive after this deadline will not be considered. Assessment of applications will only begin once the deadline has passed.
- March 15 is the deadline for applications to all other graduate degree programs in the School of Education (Curriculum Studies, Inclusive Education, and Leadership). Applications that arrive after this deadline will be considered if space is available. Assessment of applications will only begin once the deadline has passed.

Given space availability, it is not possible to guarantee admission to all candidates who meet basic requirements.

The School of Education may defer approval of M.Ed. program entry to the following year for programs other than the Counselling program. Requests to defer approval of program entry must be made within 30 days of the date of the applicant's current offer of admission. Prior to March 15 of the year in which they wish to enroll, applicants will be required to supply an admission application form, an updated resume, and transcripts of any coursework taken during the previous year.

## Med Program Requirements

Course requirements vary according to program. Detailed information is presented below. All course selections must be made in consultation with and have the approval of the Director or the Director's designate. Candidates in MEd programs may select electives from other graduate courses within the school with the prior approval of the Director. A maximum of 6 graduate credit hours may be taken as electives from other Acadia University departments or schools with prior approval of the Director. Students in a Master of Education program may take a maximum of three (3) courses from the same instructor; exceptions require Director approval.

Students may complete the Master of Education by a course route or by including a thesis or project as well as courses. Students intending to pursue doctoral studies in education are urged to check with the institution(s) to which they plan to apply to see whether there is a prerequisite of a master's level thesis. Those choosing the thesis route will take EDUC 5966 in place of 6h elective courses. Those choosing the project route will take EDUC 5713 in place of a 3 h elective course.

## MASTER OF EDUCATION (CURRICULUM STUDIES)

Students must complete 30 h in one of the following programs/concentrations:
A) General Program: Required courses (9h): EDUC 50 G 3 (for non-thesis students) or EDUC 5513; EDUC 5633, 5643. Required for Thesis route (9h): EDUC 5113 or EDUC 5523, EDUC 5966.
B) Science, Math and Technology: Required courses (9h): EDUC 50 G 3 (for nonthesis students) or 5513; EDUC 5633, EDUC 5643. Required for Thesis route (9h): EDUC 5113 or EDUC 5523, EDUC 5966. Concentration courses (9h): EDUC 5053, EDUC 5153, EDUC 5673, EDUC 5753, EDUC 5843, EDUC 5863, EDUC 5873, EDUC 5883.
C) Learning and Technology: Required courses (9h): EDUC 50G3 (for non-thesis students) or EDUC 5513; EDUC 5633, 5603 (recommended) or EDUC 5643. Required for Thesis route (9h): EDUC 5113 or EDUC 5523, EDUC 5966. Concentration courses (9h): EDUC 50A3, EDUC 50B3, EDUC 5053, EDUC 5153, EDUC 5163, EDUC 5173, EDUC 5643, EDUC 5673, EDUC 5753, EDUC 5773, EDUC 5843, EDUC 5853.

- For the courses EDUC 5053, EDUC 5153, and EDUC 5673 the focus of the course is required to be in the student's concentration area.
- Non-thesis students may substitute EDUC 50G3 - Research Literacy for EDUC 5513 - Research Design as their required research course.
- Program electives are selected from graduate courses offered by the School of Education or from approved graduate courses offered by other departments or schools.


## MASTER OF EDUCATION (COUNSELLING)

Students must complete a minimum of 48 h (48h non-thesis/51h thesis) in one of the following programs/concentrations:

Requirements for all Students (36h)

1. EDUC 5513 or EDUC 50G3;
2. EDUC 5003, EDUC 50D3, EDUC 5033, EDUC 5066, EDUC 5133, EDUC 50J3, EDUC 50F3, EDUC 5543, EDUC 5583, EDUC 5623

## School Counselling Stream

3. EDUC 50 C 3

## Agency Stream

3. EDUC $50 \mathrm{~K}_{3}$

- Additional Recommended Courses for School Counselling Stream (3h): EDUC 50E3
- Additional Recommended Courses for Agency Stream (6h): EDUC 5233, EDUC 5553


## Non-Thesis students

4. 6 h electives selected from graduate courses offered by the School or approved graduate courses offered by other departments or schools.

- Non-thesis students may substitute EDUC 50G3 - Research Literacy for EDUC 5513 - Research Design as their required research course.


## Thesis Students

4. EDUC 5966 and EDUC 5113 or EDUC 5523

- Only students accepted into the Counselling program are eligible to take core courses. The Director, School of Education, in consultation with the course instructor may give special permission to take a core course to those students who possess a relevant counselling background.
- All students are required to complete two one-day workshops during the first week of classes. All beginning students complete a one-day workshop on Diversity in the first summer of their program. All full-time and returning students complete a second one-day workshop on program evaluation in the second summer of their program.


## MASTER OF EDUCATION (INCLUSIVE EDUCATION)

Students must complete 30 h as follows:

1. EDUC $50 \mathrm{H}_{3}$, EDUC 5063, EDUC 5303; EDUC 5513 or EDUC 50G3
2. Program Electives ( 18 h course route, 9 h thesis route). Program electives are selected from graduate courses offered by the School of Education or from approved graduate courses offered by other departments or schools.
3. Students doing the thesis MEd will choose EDUC 5966 and EDUC 5113 or EDUC5523.
Non-thesis students may substitute EDUC 50G3 - Research Literacy for EDUC 5513 Research Design as their required research course.

## MASTER OF EDUCATION (LEADERSHIP)

Students must complete 30 h as follows:

1. EDUC 5213, EDUC 5913, EDUC 5933; EDUC 5513 or EDUC $50 G 3$
2. Electives ( 18 h course route, 9 h thesis route). Program electives are selected from graduate courses offered by the School of Education or from approved graduate courses offered by other departments or schools.
3. Students doing the thesis will choose EDUC 5966 and EDUC 5113 or EDUC 5523.

Non-thesis students may substitute EDUC 50G3 - Research Literacy for EDUC 5513 Research Design as their required research course.

## Full-/Part-Time Status

Candidates may complete requirements for Master of Education programs through parttime study. Selected graduate courses in education are offered through Open Acadia (formally called the Division of Distance and Continuing Education). It is the student's responsibility to plan so that all program requirements are completed, seeking advice from the Graduate Education Coordinator, as may be required. Students interested in part-time study should access course scheduling information from Open Acadia, which is available from their website. Part-time students enrolled in the Counselling program should plan one year in advance for the required 500-hour block practicum.

Students in part-time programs are requested to notify the school of their intention to register in the project or thesis course six months prior to registration.

A student's full-time or part-time status is determined by the number of credit hours in which they are registered per term. Registration in 9 or more credit hours in a given term is automatically considered full-time status.

Full-time students may enroll in a maximum of 12 credit hours during fall term and 12 credit hours during winter term. Full-time or part-time graduate students may take a maximum of 6 credit hours during any three-week intersession.

Full-time MEd students are eligible to opt out of the ASU Health and/or Dental Plans. Access to the health and dental plans is one of the many benefits of membership in Acadia Students' Union. Therefore, associated Students' Union fees will also be applied.

In order to opt out of the plans, the student must visit the Health Plan Administrator's office before the final business day of the month in which their academic term begins. The same deadline applies for adding dependents to the student's policy. Contact Cindy MacDonald, Health Plan Administrator (Room 610 Acadia Students' Union, ASU Box 6002, Wolfville, NS B4P 2R5; Phone: (902) 585-2167; Fax: (902) 542-3901). For complete details regarding health and dental benefits for Acadia students visit: www.studentbenefits.ca

Students who enroll as full-time Counselling students are expected to register in those course sections designated for full-time students. They may enroll in course sections designated for part-time students only with the permission of the instructor and only if there is available space.

The minimum time required for completion of degree requirements is one academic year and one summer session. The full-time Counselling program begins in summer session (July) each year

Students not yet registered in a Master of Education program ("independent students") may apply to take a maximum of 12 credit hours at the graduate level - this does not guarantee acceptance into a MEd program. Core required courses in counseling are not available to independent students. Such students must meet the academic admission requirements of the MEd program. Specifically, they must have, prior to course registration, a B average in the BEd program or, for those claiming BEd equivalency, a B average in the final two years of the undergraduate degree. Official undergraduate transcripts must be attached to course registration forms. Registration will not be accepted without transcripts.

Note: Not all elective courses are available annually.

## Course Completion Policy

When circumstances warrant, individual faculty may grant extensions on course assignments; however, the maximum time allowed for submission of overdue assignments will be 30 days past the last day of the school term. Faculty will submit the grade earned by the student in the course by the appropriate deadlines set by the Registrar each term and, if necessary, complete a mark change form upon evaluation of any assignments students complete through contracted extensions.

## EDUCATION (PhD)

Program Contacts:
Dr. Donovan Plumb, Chair Ruth Ann d'Entremont
Inter-University Doctoral Admin Committee Phone: (902) 457-6564
Mount Saint Vincent University Email: Ruthann.dentremont@msvu.ca
Email: donovan.plumb@msvu.ca
Phone: (902)457-6211 Fax: (902) 457-0197
http://www.educationphd.ns.ca
The Ph.D. in Educational Studies is offered in a collaborative partnership with Mount Saint Vincent University, Acadia University and St. Francis Xavier University. The research-oriented doctoral program is jointly administrated by the Inter-University Doctoral Administrative Committee (IDAC). Applicants are admitted to one university and graduate from that Home Institution of Record.

Doctoral students can focus their studies on one or more of six interrelated themes: curriculum studies, educational foundations and leadership, inclusive education, lifelong learning, literacies, and the psychological aspects of education. These themes reflect current faculty research strengths and ongoing educational studies issues. Doctoral students who are teachers may concurrently anchor their studies in their 'teachable subjects'. Applicants are encouraged to review the research interests of education faculty members at all three participating universities, available at their respective websites, as well as the research interests of other faculty members.

## Admission Requirements

Note: An average of 10 students will be admitted each year: 4 at the Mount, 3 at St. F.X. and 3 at Acadia. Normally, IDAC will use a competitive admissions policy, but it will consider applicants on a case-by-case basis and waive the fixed application date, if deemed warranted and if space is available in the program for that year.
a) A Master degree from a recognized university in education or in a related field of study (a cognate discipline);
b) Normally, a graduate thesis in a field related to their doctoral studies. Those applicants who have not completed a thesis are required to submit evidence of their ability to undertake research in education through the completion of a qualifying research paper of sufficient depth and scope to reflect their research competence;
c) Evidence of scholarly preparation to conduct research, normally including graduate level courses in quantitative and/or qualitative research methods and design;
d) Three letters of reference, normally including two academic and one professional;
e) A recent curriculum vitae indicating current initiatives in education and any academic, scholarly work to date;
f) A letter of intent indicating a proposed area of study from among the six interrelated themes of educational studies;
g) A minimum of A- or $80 \%$ average in his or her highest degree; and,
h) An interview with a selection committee that is a subcommittee of the IDAC.

Note: Qualified applications will only be admitted if a suitable supervisor and program can be provided.

## English Language Proficiency

To achieve success in this doctoral program, applicants must demonstrate strong reading, writing and comprehension skills in the English Language.

## Application Process and Deadlines

Note: The Doctoral Program Application Package is available from the Doctoral Program Office in the Faculty of Education and online at http://www.educationphd.ns.ca
a) Applicants apply for their institution of choice (the Mount, Acadia or St. F. X.) through the Doctoral Program Office by November 15 for July 1 entry;
b) The IDAC will review all applications and, by majority agreement, recommend acceptance of applicants to the participating institutions;
c) For any applicants recommended to the Mount, the Doctoral Program Coordinator will assign an appropriate pro tem (research) advisor;
d) The Mount's Admissions Office will inform the applicant, in writing after March 1, regarding the decision of the IDAC. The Mount becomes the Institution of Record for all doctoral students formally admitted to the Mount;
e) In addition to specific doctoral program requirements and regulations, Mount students are bound by the regulations and procedures pertaining to graduate studies at the Mount (http://www.msvu.ca/en/home/programsdepartments/graduatestudiesgenerali nformation/default.aspx);
f) Each pro tem advisor (dissertation supervisor) will arrange for an entry meeting for his/her student(s) to develop a preliminary program plan and an initial outline of the proposed research area. This preliminary plan will be submitted in writing to the IDAC for approval (within a time frame specified by the IDAC), through the Doctoral Program Coordinator. Normally, this plan is completed before the July 1 start date.

## Residency and Period of Study

Students must complete 4 units of course work (EDUC 8013, 8023, 8033, 8043, 8053, 8109) by undertaking full-time studies during four consecutive semesters (14-month residency). Candidates who have defended their comprehensive portfolio may choose to attend on a part-time basis while completing their proposal and dissertation. They must defend their dissertation within six years of entering the doctoral program unless an extension has been granted. Students must register in a minimum of 1.0 unit per year.

## Phd Program Requirements

1. All of the following: EDUC 8109 (Comprehensive Examination:

Research/Scholarly Portfolio), EDUC 899Z (Dissertation and EDUC 8990 Dissertation Continuation), EDUC 8013 (Foundations of Educational Inquiry), EDUC 8023 (Methodological Perspectives on Educational Research), EDUC 8033 (Doctoral Seminar: Contemporary Educational Theory), EDUC 8043 (Focused Educational Studies (based on current roster of Ph.D. students)), EDUC 8053 (Advanced Research Seminar: Focus on Methods)

## Required/Electives Courses

At the time of admission, students will be advised if they are required, and they may choose, to complete (in consultation with pro-tem advisor and with approval from IDAC):

EDUC 8063 and EDUC 8073
EDUC 8083 and EDUC 8093

Special Topics Educational Studies
Independent Study

The Department of English and Theatre offers a one-year program leading to the Master's degree in English literature. Students participate in small seminar classes, work closely with a supervisor to complete a thesis that takes a fresh approach to a literary subject, and where possible are offered the opportunity to gain teaching experience. The Department welcomes a wide variety of scholarly and critical approaches, and its distinguished faculty cover a broad range of literature in English.

## Program Requirements

Students accepted into the English MA program are admitted to a one-year program consisting of:

1. Four graduate-level courses (12h),
2. the non-credit Scholarly Methods (ENGL 5060), and
3. a scholarly thesis (ENGL 5960).

Students are expected to complete all the course requirements for the MA degree during the fall and winter terms. In order to complete the program on time, students are also expected to spend much of the spring and summer completing the thesis requirement. A Master's thesis should offer a fresh approach to a literary subject: it may be a literary argument based on research, critical analysis and coherent thinking, or it may be an editing project.

## Program Regulations

Early in the fall term, students will submit to the graduate committee thesis proposals developed in consultation with departmental supervisors. Once the proposals have been approved, students begin the writing process under the guidance of their supervisors. The graduate committee has set firm dates for the submission of proposals and drafts with the design of moving students through the program within one academic year. Students should aim to submit theses for examination by July.

## Financial Assistance

In addition to the awards found in the graduate awards section of this calendar, the English Department offers the following support:

Bittner Graduate Fellowship in English - This fellowship was established by the late Alice Homler Bittner in memory of her husband, William R. Bittner, who was a professor of English at Acadia from 1967-1977. The fellowship is awarded to a graduate student in the Department of English on recommendation of that department.

The Aaron Jenkins Perry Memorial Fellowship - This fellowship was provided from the estate of Mrs. Jennie Perry and is awarded annually to a deserving student in the Master of Arts program in the Department of English with preference given to a student wishing to work in the field of Middle or Old English. Dr. Aaron Perry (BA, Acadia, 1901; MA '02; D.Litt.,'38; MA, Yale,'o3) was a devoted teacher, administrator, researcher and author.

The William Inglis Morse Library Research Fellowship - An annual fellowship endowed by the late William I. Morse, D.Litt. of Cambridge, MA. (Acadia'97) for research in English or History. Priority will normally be given to a graduate student, but failing such, the fellowship may be awarded to a senior honours student. The recipient shall perform the duties of curator of the William Inglis Morse Collection and avail
himself/herself, so far as possible, of the resources of the collection in conducting his/her research.

The Dr. Vernon Blair Rhodenizer Graduate Scholarship - A scholarship established by the late Dr. Vernon B. Rhodenizer (Head of the English Department, 19191954) is awarded annually to support study in English literature at the graduate level at Acadia University.

The Dr. Harrison H. Way Memorial Scholarship - This fellowship is awarded annually to a student pursuing his/her Master's degree in English literature, with a preference for a student working in Prose. The recipient will be chosen on the recommendation of the Graduate Committee in the Department of English and Theatre.

As well, graduate students sometimes receive financial support by working as research assistants for faculty with grants.

## Research Facilities

The Vaughan Library is particularly strong in Arthurian Literature (mediaeval and modern) and early Canadiana; the latter collection is estimated to be among the top five in the country. It includes the Eric R. Dennis Collection of Canadiana, the John D. Logan Collection of Canadian Literature, the Thomas Chandler Haliburton Collection, the Mermaid Theatre Collection, and the Watson Kirkconnell Collection of Kirkconnell's books and papers. The Esther Clark Wright Archives includes among its holdings manuscripts and papers of novelist Margaret Marshall Saunders and of the poet/novelist J. F. Herbin; the correspondence and literary criticism of Canadian litterateur, John D. Logan; and various other documents pertaining to writers as varied as John Lockhart ("Pastor Felix"), Silas Tertius Rand, Bliss Carman, Robert Norwood, W. W. Campbell, W. E. Marshall, Newton MacTavish, and John Ruskin.

Current research being conducted in the department includes work on Arthurian Literature (especially the mediaeval Arthurian Legend and Thomas Malory), Renaissance drama and culture, the early novel, Shakespeare, the Romantics, British Aestheticism, early Canadian women writers, queer studies, law and literature, Atlantic-Canadian literature, Twentieth-century American poetry, travel writing, African literature, and Postcolonialism. The department is particularly strong in research on mediaeval romance, William Shakespeare, Robert Browning, Augusta Webster, Leigh Hunt, Sylvia Plath, Anne Sexton, Australian Literature, modern British fiction and poetry, children's literature, digital humanities and the history of the book, and Canadian literature (including early Canadian, Atlantic-Canadian and feminist writing in Canada).

## GEOLOGY (MSc)

Department of Earth and Environmental Science; Huggins Science Hall, Room 327 Ph: (902) 585-1208; Fax: (902) 585-1816; sandra.barr@acadiau.ca

The Department of Earth and Environmental Science offers instruction and research training leading to the MSc degree in Geology in the general areas of igneous petrology, metamorphic petrology, regional tectonics, applied geochemistry, economic geology, sedimentology, Precambrian environmental evolution, Quaternary geology, and environmental earth science.

## Program Requirements

Two options are available. Option 1 normally requires at least two full academic years (September to April) plus the intervening summer to complete the MSc requirements.

Option 2 is offered in conjunction with the Nova Scotia Community College - Centre of Geographic Sciences Campus (CoGS), Lawrencetown, NS, and involves completion of a Diploma in Remote Sensing or a Diploma in Geographic Information Systems from CoGS, followed by study at Acadia to complete three 3 h courses and a thesis. Candidates in the MSc program in conjunction with CoGS are likely to require a subsequent 16 months to complete the MSc requirements at Acadia after completion of the 9-month diploma program at CoGS.

Graduate studies related to Earth and Environmental Science are also available through the Applied Geomatics graduate program described elsewhere in this calendar.

## Admission

Initial inquiries should be addressed to the Graduate Coordinator, Department of Earth and Environmental Science. Applications are reviewed upon receipt. Applicants to the MSc program in conjunction with CoGS must first apply to the diploma program at CoGS; subsequent application to Acadia will normally be done during the nine months of study at CoGS.

## Application Deadline

February 1 is the deadline for applications if you wish to be considered for an Acadia Graduate Award in the subsequent academic year, but enquiries are welcome at any time.

## Program Requirements

The program requires the student to complete 5 ( 3 h ) courses at an advanced level plus a thesis. A typical course involves formal instruction for three hours per week for one term (13 weeks) plus laboratory exercises. Some courses may be taught in tutorial sessions, or may be seminar and/or research oriented.

At least two courses must be at the 5000-level, and it is recommended that at least two of the additional courses be at the 5000-level or at an enriched 3000- or 4000-level. GEOL 5903 (Graduate Seminar) is strongly recommended. Candidates should consult the undergraduate calendar for descriptions of advanced undergraduate courses. A thesis proposal must be completed during the student's first year of study, and before the initiation of field work.

The MSc program in conjunction with CoGS involves satisfactory completion of the Diploma in Remote Sensing or the Diploma in Geographic Information Systems at CoGS, followed by three advanced level courses and a thesis at Acadia. At least two courses must be at the 5000-level. GEOL 5903 is strongly recommended. A proposal for a thesis involving applications of remote sensing or GIS to geology must be completed during the course work period.

## Research Facilities

The Department of Earth and Environmental Science has laboratory facilities and equipment for most of the major fields of these disciplines, including research microscopes, photomicrographic equipment, facilities for sedimentological studies, a computer-based image-analysis laboratory including cathodoluminescence microscopy, and an in-house thin section and polished section preparation centre. A scanning electron microscope with EDS and cathodoluminescence capability and an X-ray diffractometer are available in the Acadia Centre for Microstructural Analysis. Additional equipment including facilities for TOC/TIC analysis, a mercury speciation laboratory, HPLC-ICP-MS for trace metal speciation, CHONS analyzer, UV-VIS and scanning fluorescence spectroscopy, and a nutrient analyzer (total P and N ) are available in the K.C. Irving Environmental Science Centre. Other major research facilities, including electron microprobe, X-ray fluorescence, neutron activation, and isotopic analysis equipment are available through cooperation with other universities in the region. Computer systems and
software applicable to the remote sensing and GIS programs may be available through collaboration with CoGS.

## MATHEMATICS AND STATISTICS (MSc)

Department of Mathematics and Statistics; Huggins Science Hall, Room 130
Ph: (902) 585-1382; Fax: (902) 585-1074; mathstats@acadiau.ca

## Admission Requirements

In addition to those stated in the Admissions section of this calendar, all applicants must submit a brief statement of possible research interests and indicate whether they will be seeking an internship.

## Program Requirements

12h Mathematics and Statistics courses at the 5000-level and Math 5960, as well as enrolment in Math 5810 each term the student is in residence. Students will follow the thesis requirements as described on the Graduate Studies website.

Until all course requirements are satisfied, graduate students in residence will normally take at least two courses suitable for credit in the program in each term. The normal length of time for completion of the program, including the internship, is two academic years.

The program is aimed, in the first instance, at students who plan careers in applied mathematics or statistics. A Co-op work term is seen as a core feature of the program. By spending time in a supervised workplace setting in which mathematical or statistical research forms an essential part of the working routine, students acquire hands-on experience in applied research in the mathematical or statistical sciences.

## Co-operative Education

A Co-operative Education Option is available to students who are enrolled in the Master of Science in Mathematics \& Statistics program. Co-op offers a minimum of four months and a maximum of eight months of work experience in industry while students are completing the requirements for a degree. Work terms are non-credit courses, graded as pass or fail, and are over and above the required courses for the degree. They are not considered as replacement courses for the degree. Students enroll in Co-op in September of their first year of study. Two terms of study must be completed prior to the student's first Co-op term. Co-op terms must be completed prior to the student's final full term of study.

## COOP 5910 (5920) COOPERATIVE EDUCATION 1 (2)

This is the first (second) four-month term in which the student is employed in a discipline related position. Students will engage in degree-relevant, hands-on learning for a minimum of 420 hours per term offering opportunities for application of classroom-based theory, reflection, collaboration with subject matter experts, as well as feedback on performance and a formal report or presentation. Provides in depth exposure to varied professional environments, learning of specialized knowledge/techniques/equipment, and first-hand insight into potential career paths. Prerequisite: permission from the supervisor and Graduate Coordinator.

## POLITICAL SCIENCE (MA)

## Admission Requirements

The current effective threshold for admission is a Bachelor of Arts with Honours Degree in Political Science, with a minimum GPA of 3.5 in the last two years. We occasionally admit candidates with a major in Political Science or degrees in other disciplines, however, we may require coursework in Political Science prior to admission to the MA depending upon the actual qualifications of individual candidates (and their equivalence to Political Science). Your application must include: three letters of reference, curriculum vitae, undergraduate university transcript, sample of your recent written work, general statement of your proposed thesis research, and the application fee as required by Acadia University.

Foreign students must also submit an English language test score. Please check the Admissions section at the front of calendar for the minimum score requirements.

## Program Requirements

Pols 5143, and five additional courses. Of these five:
Students must take at least one course in the three of the four subfields

- Canadian Politics: POLS 5103, POLS 5203, POLS 5303, POLS 5403, POLS 5603, POLS 5803
- Comparative Politics: POLS 5193, POLS 5293, POLS 5693, POLS 5893
- International Relations: POLS 5183, POLS 5283, POLS 5383, POLS 5483*, POLS $5783^{*}$, POLS 5883*, POLS 5983* and IDST 5186.
- Political Theory: POLS 5043, POLS 5243, POLS 5343, POLS 5443, POLS 5743

Students may take one MA-level directed readings course from a faculty member in any department or one MA-level course from a cognate department, subject to the approval of that faculty member and the graduate coordinator.
Thesis: Pols 5960. The thesis may not exceed 40,000 words in length except with the permission of the department. The department encourages students to complete and successfully defend the thesis within 4 months after the completion of course work.

* Pols 5483, POLS 5783 and POLS 5883 can be counted as International Relations or Political Theory, but not both. In some years, POLS 5983 may be counted as Comparative Politics.


## PSYCHOLOGY (MSc)

Department of Psychology; Horton Hall, Room 326
Ph: (902) 585-1301; Fax: (902) 585-1078; http://psychology.acadiau.ca/

## Admission Requirements

To apply, you must have either an honours degree in psychology or equivalent (i.e. an undergraduate degree majoring in psychology along with sufficient and relevant research experience). If you are interested in counselling, but do not hold those qualifications, you may be interested in either our Master of Education in Counselling, or in completing an undergraduate degree in Psychology. Found at:
http://www2.acadiau.ca/prg_gr_psyc.html

## Admission Procedures

Applicants are required to provide all undergraduate transcripts, GRE scores (GRE General Test only - the Psychology Subject test is not required), three letters of reference, and a statement of research interests and applied interests (in one document). The statement should describe their academic, research, and clinical interests and how they intend to pursue them in the clinical psychology graduate program at Acadia University. They should state what they are interested in studying and why Acadia University is a
good place for them. They should also clearly state general areas of research interests and potential Acadia supervisors in those areas, as well as their career objectives, preparation, suitability for the program, and any other relevant information. Over the past five years, we have averaged 40 applications per year for 4 spaces per year. Of admitted students, the average GPA was 3.6 and the average GRE percentile scores (General Test) were 79th (verbal), 61st (quantitative), and 8oth (analytical). Previous research activity, work experience, and clinically-related public service are considered. Short-listed candidates may receive a telephone or in-person interview by two or more faculty members in order to augment the selection process. Admission is restricted to those holding a bachelor's degree with honours in psychology or equivalent.

## Program Requirements

Candidates must complete the following courses: PSYC 5013, PSYC 5023, PSYC 5033, PSYC 5043, PSYC 5053, PSYC 5063, PSYC 5113, PSYC 5123, PSYC 5960, and PSYC 6076. Substitution of another graduate course for one of these required courses must have approval of the department. Students may take additional electives.

Students must obtain a minimum grade of B- in all graduate courses. Students obtaining a final grade below B- in any course must withdraw from the program, unless special permission to continue in the program is granted by the department.

This is normally a two-year ( 24 month) M.Sc. program in clinical psychology. Courses beginning with a 5 are usually taken in the first year and those beginning with a 6 are usually taken in the second year. Enrolment in graduate courses is limited to students who have been accepted into the psychology graduate program. An empirical thesis is also required of all candidates. A successful formal defence of the thesis proposal is strongly recommended by the beginning of second year.

Students in their third or subsequent years of the program who have not had a thesis proposal accepted by the department will be reviewed by the department head and clinical program coordinator and may receive a failing grade in PSYC 5960.

## Typical Course of Study

Year 1 - Term 1
PSYC 5013 Seminar
PSYC 5023 Adult and Child Assessment: Foundations
PSYC 5043 Ethical Decision Making
PSYC 5053 Psychotherapy 1: Foundations
PSYC 5113 Research Design and Statistics 1
Year 1 - Term 2
PSYC 5013 Seminar
PSYC 5033 Adult and Child Assessment: Advanced Skills
PSYC 5063 Psychotherapy 2: Intervention Skills
PSYC 5123 Research Design and Statistics 2
Year 2 - Term 1 and 2
PSYC 6076 Practicum in Clinical Assessment and Psychological Interventions PSYC 5960 Thesis

Enrolment in PSYC 6076 is by permission of the department, based on the review of student progress evaluated as satisfactory, that includes passing all first year graduate courses with a grade of B- or better. Continued enrolment in the program is contingent upon maintenance of satisfactory performance in (a) course work, (b) thesis work, (c) practicum skills development, and (d) adherence to professional ethical standards ( $A$ Canadian code of ethics for psychologists, 2000). Students will be notified of problems in
any of these areas through reviews of student progress, carried out at least twice, once in the Fall and once in the Spring of the first year of the program. The process for review is as follows: (a) Students receive preliminary feedback from their research supervisors and provide their own comments when they meet to fill out the review form. (b) Student progress is reviewed at a meeting of the clinical program committee attended by students' supervisors. (c) The clinical program director will write each student on behalf of the committee, indicating the committee's assessment of the student's progress. If progress is deemed to be unsatisfactory, the letter will convey what remedial actions or steps are required in order to address the committee's concerns. Failure to resolve problems satisfactorily will result in termination from the program.

## Research Facilities

The Department of Psychology is housed in Horton Hall and has ample space to support student research. Each faculty member involved in supervision has assigned space and facilities.

## RECREATION MANAGEMENT (MR)

Department of Community Development; War Memorial Gymnasium
Ph: (902) 585-1307; Fax: (902) 585-1702; http://commdev.acadiau.ca/

## Program Requirements

Each candidate will take RECR 5543, RECR 5576, RECR 5693, 3h advanced courses with approval of the student's graduate advisor, and RECR 5960.

On an individual basis, students may be required to make up any deficiencies in their academic preparation.

## Partnerships

We have close links with the professional community throughout Nova Scotia, Canada, and abroad. In addition, we have developed collaborative efforts with a number of other universities.

## SOCIAL AND POLITICAL THOUGHT (MA)

Department of Politics; Beveridge Arts Centre, room 219
Ph: 902.585.1506; Fax: 902.585.1070; http://spt.acadiau.ca

## Admission Requirements

We are interested in admitting a diversity of students with a common motivation and ability to pursue interdisciplinary, graduate-level theoretical work on society and/or politics. We encourage applications from interested students graduating from relevant disciplinary (e.g. philosophy, political science, sociology) and interdisciplinary (e.g. communication and cultural studies, environmental studies, women and gender studies) programs, as well as from those with relevant work or life experience beyond their undergraduate degree. All applications will be considered on an individual basis.

Your application must include: at least two letters of reference, curriculum vitae, undergraduate university transcript, sample of your recent written work, statement of research interest, and the application fee as required by Acadia University.

## Program Requirements

Students admitted to the MA in Social and Political Thought are required to take 18 credit hours of courses, normally during the first eight months after their admission (fall and winter term). Students take six courses (for full-time students, normally three in each of the Fall and Winter terms). There are four required courses: SOPT 5113, PHIL 5113,

POLS5043 and SOCI 5113. The remaining two courses (six credit hours) can be any two 5000-level courses taught by members of the SOPT Program (subject to approval by the SOPT Graduate Coordinator).

The Social and Political Thought program is organized around the SOPT 5113 Colloquium. Over the duration of the program, students will be introduced to diverse and interdisciplinary voices, topics and approaches from inside and outside the SOPT faculty. Students also have the opportunity to develop their skills in the SOPT graduate student journal and the biennial graduate student conference.

Students in the program also write a Masters' thesis (SOPT 5960), under the guidance of a thesis supervisor and second reader - two program faculty members from different departments. Students are expected to complete the thesis within one year of completing their course work. Accordingly, students are advised to choose a thesis supervisor and second reader early.

## SOCIOLOGY (MA)

Department of Sociology; Beveridge Arts Centre, Room 307
Ph: (902) 585-1493; Fax: (902) 585-1070; sociology@acadiau.ca

## Admission Requirements

In addition to the general Admission requirements, applicants must have a grade-point average of at least 3.55 in the last two years of their program. Applicants with a cumulative grade point average of 3.55 will be given preference. Applicants are required to have completed 6 h coursework in each of sociological theory and research methods. Those without an Honours degree who have completed a four-year undergraduate degree which included a thesis-length research paper may be admitted on the recommendation of the department.

Your application must include: a statement of research interests, details of previous research and experience and sample of written work.

## Application Deadline

February 1 is the deadline for applicants who wish to be considered for university funding. Other applications will be considered until March 1.

## Curriculum

The MA program includes an eight-month schedule of courses, seminars, and thesis preparation as well as some opportunity for teaching experience. The remaining four months of the one-year program are devoted to the completion of a thesis.

Students are urged to choose a thesis supervisor by October 1 . Such a choice may be altered in consultation with the department, but in order that work toward the MA degree is facilitated, a supervisor should be chosen early.

## Required Courses

SOCI 5003, SOCI 5113, SOCI 5123, SOCI 5960 and two of SOCI 5203, SOCI 5223, SOCI
5333, SOCI 5343, SOCI 5413, SOCI 5423, SOCI 5603, SOCI 5613. (21h)

## PART VIII: COURSES

## THE SYSTEM OF COURSE NUMBERING

Four figures appear for each course listed in the calendar. The first figure indicates the year of attendance in which the course is normally taken. 'o' indicates a course which may not be offered for credit towards a degree program. ' 1 ', ' 2 ', ' 3 ' and ' 4 ' indicate the year of attendance in which the course is normally taken. ' 4 ' also indicates a course taken in a post-baccalaureate professional program. ' 5 ', ' 6 ' and ' 7 ' indicate courses taken at the graduate level. ' 8 ' indicates courses offered at the post-baccalaureate level for purposes of professional improvement. ' 9 ' indicates courses taken elsewhere and accepted for transfer credit but without an Acadia equivalent.

The second and third figures provide a serial listing, from oo to 99, of the various courses given by a department or school in each year of attendance.

In the fourth place, the digit ' 1 ' indicates a one credit hour course ( 1 h ), the digit ' 3 ' indicates a three credit hour (3h) course, ' 6 ' indicates a six credit hour (6h) course, and 'o' a non-credit course. An alpha character indicates a non-standard credit value. Laboratory hours are additional.

SUBJECTS

| APSC | Applied Science | GERM | German |
| :--- | :--- | :--- | :--- |
| ART | Art | GREE | Greek |
| BIOL | Biology | HIST | History |
| BUSI | Business Administration | IDST | Interdisciplinary Studies |
| CHEM | Chemistry | KINE | Kinesiology |
| CLAS | Classics | LATI | Latin |
| CODE | Community Development | MATH | Mathematics and <br> Statistics |
| COMM | Communication | MUSI | Music |
| COMP | Computer Science | NUTR | Nutrition |
| COOP | Co-operative Education | PHIL | Philosophy |
| CREL | Comparative Religion | POLS | Political Science |
| ECON | Economics | SOCIC | Psychology |
| EDUC | Education | SOPT | Social and Political <br> Thought |
| ENGL | English | SPAN | Spanish |
| ENVS | Environmental Science | THEA | Theatre Studies |
| ESST | Environmental \& Sustainability <br> Studies | WGST | Women's and Gender <br> Studies |
| FRAN | French | Geology | GEOL |
| GEOS | Plas |  |  |

Please note that the listing of a course in the calendar is not a guarantee that the course is offered every year. Check Acadia Central for up-to-date course offerings.

## Undergraduate Courses

## APPLIED SCIENCE

## APSC 1073 Introduction to Engineering 1

Introduction to Engineering acquaints students with basic skills and knowledge that will be useful to them throughout their studies and in later professional life. Topics include the structure of the profession, the role of provincial regulatory bodies, codes of ethics, technical communications (i.e. report types, writing mechanics, how to make an effective presentation, etc.), error estimation and uncertainty in engineering measurements, the engineer's responsibility for workplace safety, project planning, environmental issues and sustainability, intellectual property rights and patents.

## APSC 1113 Statics

This is a first course in engineering mechanics, focusing on the analysis of various simple static structures. Topics include force and position vectors, dot and cross products, directed force vectors, equivalent force and moment systems, particle and rigid body equilibrium, two and three force elements, trusses, frames, machines, friction, centroids and moments of inertia. Students complete a major design project for part of their grade. (3h lab). Prerequisite/Corequisite: MATH 1013, PHYS 1013.

## APSC 1223 Design 1 (CAD)

An introduction to the engineering design process focusing on the role of graphics in design. Students are instructed in the use of modern CAD software for the production of mechanical drawings and learn standards for same. Free hand sketching, 3-D visualization techniques and report writing are also covered. Students complete a major design project and submit a set of drawings with a written report to obtain a significant portion of their grade. (3h lab)

## APSC 1413 Computer Programming for Applied Science 1

This course covers the fundamental programming principles of flow control, modularity and structured programming. The student will implement significant programs in the "C" programming language to solve a variety of engineering problems. (3h lab). Prerequisite or Corequisite: MATH 1013.

## APSC 2113 Thermo-Fluids I

This course introduces the sciences of Thermodynamics and Fluid Mechanics in an integrated manner. It covers the basic properties of fluids and gasses, the ideal gas equation of state, simple compressible substances, fluid statics, work and heat interactions, the first and second laws of thermodynamics, enthalphy, entropy and specific heat, steady and unsteady flow, Carnot, Rankine and refrigeration cycles. (3h lab). Prerequisite: APSC 1113, MATH 1023.

## APSC 2123 Thermo-Fluids II

Fluid flow definitions and material properties. Fluid statics, forces on submerged surfaces, buoyancy and stability. Continuity, Euler, energy and momentum equations with engineering applications. Dimensional analysis, similitude, theory of physical models. Reynolds number, laminar vs turbulent flows, friction factor and simple piping systems. Lift and drag of submerged objects. (3h lab). Prerequisite: APSC 2113.

## APSC 2133 Strength of Materials

Elastic deformation and failure analysis for common engineering elements. Material properties, stress strain testing and diagrams. Axial, torsion, transverse and bending loads. Stress transformations and principal stresses. Statically indeterminate problems. Design of struts, pins, shafts, pressure vessels, beams and columns. (3h lab) Prerequisite:

## APSC 2213 Electric Circuits 1

Introductory circuit analysis. Kirchoff's laws, node and mesh analysis, terminal behaviour and circuit equivalence including Thévenin and Norton circuits. Controlled sources and energy storage elements, steady state and transient response of first order networks. Steady state AC power, phasor diagrams, power and power factor are introduced. (3h lab). Prerequisite: MATH 1023.

## APSC 2223 Digital Systems

Digital logic, digital systems, machine level representation of data, principles of assembly level machine organization, principles of CPU design. Cross-coded as Comp 2203. (1.5h lab). Prerequisite: permission of school.

## APSC 2323 Surveying

Chain, level, transit, EDM; Differential, contour, profile, vertical curves, grade stakes, slope stakes; triangulations, traversing, horizontal curves, coordinates; areas and volumes. Two weeks of field work required. Prerequisite: permission of school.

## APSC 2413 Engineering Economics

Topics of theoretical and applied economics of interest and use to engineers and professionals in related fields. Topics include market equilibria, interest rate determination, present and future values, investment criteria, budgeting and replacement analysis, depreciation, taxation, inflation, sensitivity and risk analysis, and multi-staged and multi-attribute decision making. (3h lab). Prerequisite: MATH 1023.

## APSC 2523 Electric Circuits 2

Advanced circuit analysis dealing primarily with AC systems. The concepts of sinusoidal excitation, phasors and complex impedance are fully developed. Mutual inductance and magnetically coupled coils are used to describe transformer behaviour and performance. Power calculations for single and balanced three phase systems are covered, introducing the concepts of real and reactive power. Unbalanced networks, grounding and harmonics are also examined. (3h lab). Prerequisite: APSC 2213.

## APSC 2613 Computer Programming for Applied Science 2

Computer programming in the C++ language. Topics discussed include object oriented versus procedural programming, objects, stacks, queues, linked lists, trees, various sorting and searching algorithms. Students may apply the theory to develop programs for hardware control, graphics or the numerical solution of various engineering problems. ( 3 h lab). Prerequisite: APSC 1413.

## APSC 2683 Design II

This course provides a project-based exercise in the engineering design process. Students work in teams and as individuals on defined projects which utilize knowledge gained from their previous engineering courses. The projects encompass conceptual design, detailed analysis, engineering drawings, physical model fabrication, experimentation, testing and report writing. (3h lab). Prerequisite: APSC 1223

## APSC 2713 Dynamics

The kinematics and kinetics of particles and rigid bodies. Rectangular, tangential/normal and cylindrical coordinates in translating reference frames. Application of Newton's laws, energy method, and impulse and momentum method. Simple mechanisms with emphasis on linkages. (3h lab). Prerequisite: APSC 1113, MATH 1023.

## APSC 2813 Engineering and the Biosphere

The course explores the effect of engineered systems and structures on the biosphere. Topics include cell structure and function, microbiology and toxicology, nutrient cycles, communities and ecology as these relate to engineering projects. The application of technology and design to minimize the impact of human activities on living systems is also considered. Laboratory sessions will consist of field-trips to local sites. NOTE: APSC 2813 is not considered an equivalent to any course offered through the Biology department. (3h lab). Prerequisite: CHEM 1023 or permission of the instructor.

## APSC 3213 Industrial Chemistry

An introduction to selected chemical industries, with particular emphasis on the Canadian scene. Examination of basic chemical industries and the relationship between chemistry of the process, engineering design, and equipment requirement is performed. (1h lab) Prerequisite: MATH 1023 and CHEM 1023.

## APSC 3313 Fundamentals of Chemical Process Engineering

This course seeks to develop the student's ability to perform mass and energy balances on reactive and non-reactive processes. Topics include the fundamental properties of multiphase systems, phase equilibrium, vapour pressure, phase rule, Roault's and Henry's laws and colligative properties. Emphasis is placed on developing problem solving skills. (3h lab). Prerequisite: CHEM 1023 or CHEM 1123, MATH 1023.

## APSC 3413 Introduction to Environmental Engineering

Overview of environmental engineering terms and definitions. Air and water quality, impact of domestic, agricultural and industrial operations on the environment. Review of pertinent legislation, measurement techniques and common control methods. Construction practices and their effects on the environment. (3h lab). Prerequisite: CHEM 1023, MATH 1023.

## APSC 3683 Special Topics Project

Guided study/project work in a particular area of applied science, carried out under the direction of a faculty member in the School of Engineering. Such work may involve the design, development, implementation and documentation of a significant engineering device or research to better understand an engineering problem. A written report must be submitted and/or a public presentation made upon completion of the work to receive a grade. Prerequisite: $3^{\text {rd }}$ year standing or above and permission of the school.

## ART

ART 1813 History of Art: Prehistory to 1400
Art from prehistoric times to Giotto is considered in relation to its cultural and historical context. Cross-coded as HIST 1813. Antirequisite: Credit cannot be obtained for both ART 1813 and HIST 1813.

## ART 1823 History of Art: 1400 to Present

Art from the time of Giotto to the present is considered in relation to its cultural and historical context. Cross-coded as HIST 1823. Antirequisite: Credit cannot be obtained for both ART 1823 and HIST 1823.

## ART 2013 Studio Art 1

An introduction to the concepts and processes of studio art with an emphasis on drawing and colour. Limited to 16 students.

## ART 2023 Studio Art 2

An introduction to the concepts and processes of studio art with an emphasis on drawing and colour. Limited to 16 students.

## ART 2033 Digital Imaging 1

An introduction to the computer as an art-making tool. Students will learn to create, develop, manipulate and enhance digital images with several applications using their laptop computer as a mobile studio.

## ART 2043 Digital Imaging 2

The ethics, aesthetics, and theory of digital image making will be addressed. Through assignments and experimentation, the student will create, acquire, manipulate and output of digital images with several applications using the laptop computer as a mobile studio. Prerequisite: ART 2033.

## ART 2053 Art and the Environment 1

This course addresses environmental issues through art, with a focus on the landscape model. It provides students with both "hands on" and academic assistance to allow them to undertake visual studies of local urban and rural landscapes, with the possibility of wilderness study. This course utilizes representational drawing and painting, working with drawing materials with an introduction to watercolour.

## ART 2063 Art and the Environment 2

This course addresses environmental issues through art, with a focus on the landscape model. It allows students to undertake visual studies of local landscapes. Students will develop their own imagery employing both realism and abstraction of their work. This course explores the production of images using acrylic on both paper and canvas surfaces.

## ART 2073 Contemporary Art

An examination of western art from 1945 to the present. Topics include the development of abstract expressionism, minimalism and post-minimalism, conceptualism, and pluralism in both two-dimensional and three-dimensional media.

## ART 2083 Canadian Art 1

The history of the visual arts in Canada from the sixteenth century to the early twentieth century with special emphasis on painting and sculpture.

## ART 2093 Canadian Art 2

The history of the visual arts in Canada from the early twentieth century to the present with special emphasis on painting and sculpture.

## ART 2313 American Art

Major developments in American art from the colonial period to the present. Major emphasis will be placed on specific artistic groups, major artists, pivotal artistic events, and themes specific to American culture.

## ART 2413 Art of the Nineteenth Century

Major developments in European art from the time of the French Revolution to the end of the century. Emphasis is placed on movements such as neo-classicism, romanticism, impressionism, and post-impressionism.

## ART 2423 Art of the Twentieth Century 1900-1945

Major developments in western art from 1900-1945. Major movements such as expressionism, cubism, Surrealism, and Dadaism will be emphasized.

## ART 2623 Seventeenth and Eighteenth Centuries

Selected work from these centuries is studied in relationship to its cultural, political, and economic context. Emphasis will be placed on such major figures as Rembrandt, Velazquez, Caravaggio, Watteau, and others.

ART 2813 Art of the Indian Subcontinent
A general survey of the architecture, sculpture, and painting with particular emphasis on the development of the Hindu temple and of the Buddha image.

## ART 3013 Painting 1

An introduction to the concepts, methods and materials of painting with an emphasis on colour. Limited to 16 students.

## ART 3023 Painting 2

An introduction to the concepts, methods and materials of painting with an emphasis on colour. Limited to 16 students.

## ART 3033 Art and Identity 1

In this course, art will be employed as both a tool and potentially a catalyst in our search for the meaning of identity. This will be accomplished through a visual exploration of memory on a personal and cultural level. Prerequisite: ART 2013 or by permission of the instructor.

## ART 3043 Art and Identity 2

In this course, art will be employed as both a tool and potentially a catalyst in our search for the meaning of identity. This will be accomplished through a visual exploration of memory on a personal and cultural level. Prerequisite: ART 2013 or by permission of the instructor.

## ART 3313 Special Topics in the History of Art

This course examines selected topics in the history of western and non-western art not included in the established curriculum. May be repeated for credit with change of topic.

## ART 3323 Critical Theory and Methods in the History of Art

A study of various scholarly approaches to the history of art, as well as theories which inform these approaches. Prerequisite: 6h ART and permission of the department.

## ART 3513 Woman and Art

An examination of women in art, as subjects and as artists, from the middle ages to the present. Emphasis is placed on their contribution to the history of western art as producers of major paintings, sculptures, and craft objects.

## ART 3613/3623 Independent Study: Studio Art 1/2

Individual study of problems in studio art, for highly motivated students, developed with and directed by a supervising professor. Prerequisite: permission of department.

## ART 3713/3723 Directed Readings and Research 1/2

This course consists of supervised readings and research projects in a specific area of the history of art to be chosen in consultation with a faculty member to culminate in the preparation of a major research paper using technical and critical literature in the history of art. Prerequisite: 12h ART (history) and permission of the instructor.

## BIOLOGY

## BIOL 1113 Organisms and Their Environment 1

An introduction to ecology, and to the foundations of genetics. (3h lab). Antirequisite: Credit cannot be obtained for both BIOL 1113/BIOL 1123 and BIOL 1813/BIOL 1823. Major credit cannot be obtained for BIOL 1113/1123 and BIOL 1813/1823 or BIOL 1853/BIOL 1863. However, students who have taken BIOL 1813/BIOL 1823 or BIOL 1853/BIOL 1863, and are subsequently transferring to the biology major may use either BIOL 1813/BIOL 1823 or BIOL 1853/BIOL 1863 as science electives.

## BIOL 1123 Organisms and Their Environment 2

An introduction to molecular genetics and evolution. (3h lab) Prerequisite: BIOL 1113 with a grade of C- or better. Antirequisite: Credit cannot be obtained for both BIOL 1113/BIOL 1123 and BIOL 1813/BIOL 1823. Major credit cannot be obtained for BIOL 1113/BIOL 1123 and BIOL 1813/BIOL 1823 or BIOL 1853/BIOL 1863. However, students who have taken BIOL 1813/BIOL 1823 or BIOL 1853/BIOL 1863, and are subsequently transferring to the biology major may use either BIOL 1813/BIOL 1823 or BIOL 1853/BIOL 1863 as science electives.

## BIOL 1813 Human Biology 1

The fundamental principles of biology with an emphasis on humans. Topics include the foundations of the scientific method, cell cycle and reproduction, mechanisms of inheritance, body organization and systems with an emphasis on organ systems. This course is not recommended for biology majors. Antirequisite: Major credit cannot be obtained for BIOL 1113/BIOL 1123 and BIOL 1813/BIOL 1823 or BIOL 1853/BIOL 1863. However, students who have taken BIOL 1813/BIOL 1823 or BIOL 1853/BIOL 1863 and are subsequently transferring to the biology major may use either BIOL 1813/BIOL 1823 or BIOL 1853/BIOL 1863 as science electives.

## BIOL 1823 Human Biology 2

The fundamental principles of biology with an emphasis on humans. Topics include reproduction, genetics and sexual orientation, behavior, and evolution. This course is not recommended for biology majors. Prerequisite: BIOL 1813 with a minimum grade of C-. Antirequisite: Credit cannot be obtained for both BIOL 1813/1823 and BIOL 1853/1863.

## BIOL 1853 Applied Human Biology 1

An examination of the human body from an applied perspective. Topics include the foundations of the scientific method, cell cycle and reproduction, mechanisms of inheritance, body organization and systems with an emphasis on organ systems. This course is recommended for Kinesiology majors. (3h lab) Antirequisite: Credit cannot be obtained for both BIOL 1813/BIOL 1823 and BIOL 1853/BIOL 1863.

## BIOL 1863 Applied Human Biology 2

An examination of the human body from an applied perspective. Topics include reproduction, genetics and sexual orientation, behavior, and evolution. This course is recommended for Kinesiology majors. (3h lab) Prerequisite: BIOL 1853 Antirequisite: Credit cannot be obtained for both BIOL 1813/BIOL 1823 and BIOL 1853/BIOL 1863.

## BIOL 2013 Cell and Molecular Biology

An introduction to the principles of cell biology with an emphasis on the organization of cells and the structure and function of cellular constituents. (3h lab) Prerequisite: BIOL 1113/BIOL 1123 or BIOL 1813. The BIOL course(s) used as a prerequisite must be completed with a minimum grade of $C$-.

## BIOL 2023 Principles of Genetics

An introduction to major concepts in genetics including heredity, molecular genetics, genomics, population genetics and evolution. Prerequisite: BIOL 1113/BIOL 1123 or BIOL 1813. The BIOL course(s) used as a prerequisite must be completed with a minimum grade of $C$-.

## BIOL 2043 Biodiversity of Plants and Algae

An introduction to the structure, function, evolution and diversity of plants and algae. ( 3 h lab) Prerequisite: BIOL 1113 with a minimum grade of $C$-.

## BIOL 2053 Microbial Biodiversity

This course is an overview of the diversity of microorganisms on the planet, including Archaea, Bacteria, Protista, Fungi and Viruses, and will focus on the unique and vital roles that these organisms play in their environment. (3h lab) Prerequisite: BIOL 1113 and BIOL 1123 or BIOL 1813. The BIOL course(s) used as a prerequisite must be completed with a minimum grade of $C$-. Antirequisite: Credit cannot be obtained for both BIOL 2053 and BIOL 2253.

## BIOL 2073 Animal Biodiversity

An introduction to the diversity, evolution, structure, and function of vertebrates, invertebrates, and non-photosynthetic protista. The main objective of this course is to introduce students to major groups and demonstrate the variety of relationships within, as well as between, these groups of organisms. (3h lab) Prerequisite: BIOL 1113/BIOL 1123 (can be taken concurrently with these with departmental permission) with a minimum grade of $C$-.

## BIOL 2253 Microbial Biodiversity

This course is an overview of the diversity of microorganisms on the planet, including Archaea, Bacteria, Protozoa, Fungi, and Viruses, and will focus on the unique and vital roles that these organisms play in the environment. There is not a laboratory component to this course. Prerequisite: BIOL 1113 and 1123, or BIOL 1813. The BIOL course(s) used as a prerequisite must be completed with a minimum grade of $C$-. Antirequisite: Credit cannot be obtained for both BIOL 2253 and BIOL 2053.

## BIOL 2553 Plants in the Modern World

The role played by plants in everyday life is investigated. Both historical and social developments caused by plants are explored. Current topics may include genetic manipulation of plant material, Monoculture and deforestation.

## BIOL 2563 Marine Biology

An introduction to the oceans of the world and marine organisms, their importance to humans and how they are impacted by society. The diversity and ecology of phytoplankton, zooplankton, invertebrates, fish, mammals, birds, and seaweeds are explored as they relate to ocean processes such as tides, currents, pollution, fisheries, aquaculture, and climate change. Local focus on the Bay of Fundy.

## BIOL 2663 Marine Biology

This course will teach you about the oceans of the world, what lives in them, how they function, how they are important to humans and our impact on them. No prerequisites.

## BIOL 2813 Human Physiology \& Anatomy 1

The basic anatomical and physiological principles of the human body. Major topics covered include: levels of organization, muscle-skeletal systems, neuroanatomy and physiology, and the integument. Prerequisite: BIOL 1813 or BIOL 1853 or BIOL 1113/BIOL 1123. The BIOL course(s) used as a prerequisite must be completed with a minimum grade of $C$-.

## BIOL 2823 Human Physiology \& Anatomy 2

Major topics covered include the endocrine, cardiovascular, respiratory, urinary, digestive, and reproductive systems. Prerequisite: BIOL 2813 with a minimum grade of CAntirequisite: Major credit cannot be obtained for both BIOL 3173/BIOL 3183 and BIOL 2823, although BIOL 2823 can be used as a science elective.

## BIOL 3013 Natural History and Field Biology

Hands on experience in any or all of terrestrial, fresh water, brackish water, intertidal, and marine-pelagic ecosystems. Relationships among the biota and the physical environment.

Sampling design and techniques, data analysis. Field work, labs, lectures, discussions, projects. Presented at the Richardson Field Station in Biology, Bon Portage Island.

## BIOL 3033 Principles of Ecology

Principles of ecology provides an overview of the fundamental concepts of ecology at the individual, population, community, ecosystem and landscape levels of organization. Emphasis is placed on both developing the theory behind the concepts, and on the application of this theory to environmental issues. (3h lab) Prerequisite: BIOL 1113/BIOL 1123 with a minimum grade of $C$ - or permission of department.

## BIOL 3063 Introductory Neuroscience

A lecture and laboratory course that covers cell biology of neurons, electrical and biochemical signalling, motor control, sensation and perception, learning and memory, and anatomy of the brain and spinal cord. Additional topics include special senses and diseases of the nervous system. Complementary to PSYC 3383. (3h lab) Prerequisite: BIOL 2013 with a minimum grade of C- or PSYC 2133 or CHEM 2713.

## BIOL 3073 Plant Anatomy

Development, anatomy, and basic function of plant cells, tissues, organs, and mature structures. (3h lab) Prerequisite: BIOL 2043 with a minimum grade of C-.

## BIOL 3113 Vertebrate Diversity

Evolution and diversity of the subphylum vertebrata, including a study of representative species and their morphological and phylogenetic relationships. Emphasis placed on the pivotal role of the dinosaurs in the evolution of tetrapods. (3h lab) Prerequisite: BIOL 2073 with a minimum grade of C-.

## BIOL 3123 Parasitology

Diversity, morphology, and life cycles. Origins of parasitism, parasite strategies to enhance transmission including virulence, manipulation of host behaviour, and changing host sex. Communities of parasites and predictors of diversity. Anti-parasite behaviour, immunity, selectivity in mate choice. Cospeciation. Darwinian medicine and emerging diseases. Conservation and parasites. (3h lab) Prerequisite: BIOL 1123 with a minimum grade of C-.

## BIOL 3143 Animal Behaviour

Why animals do what they do from an evolutionary perspective, and the mechanics of how they do it. Optimality, evolutionarily stable strategies, foraging, escaping predators, communication, sexual reproduction and sexual selection, mating systems, parental care, group-living, territoriality, altruism, genetics of behaviour, sensory processing, hormones and control of behaviours, development, bird song, biological clocks. (3h lab)
Prerequisite: BIOL 1123 with a minimum grade of C- or PSYC 3133.

## BIOL 3153 Principles of Development

An introduction to the early development of animals. Topics include comparative development of model species, pattern formation, induction, cell migration and differentiation, formation of the vertebrate body plan, metamorphosis, developmental genetics, and evolution. (3h lab) Prerequisite: BIOL 2013 with a minimum grade of C-.

## BIOL 3163 Comparative Embryology

A continuation of BIOL 3153 with a focus on advanced topics such as: Evo-Devo, EcoDevo, sex determination, tool kit genes, stem cells, regeneration, cloning, and the developmental basis of disease. (3h lab) Prerequisite: BIOL 3153 with a minimum grade of $C$-.

BIOL 3173 Vertebrate Physiology 1
The basic physiological principles of the vertebrates. Major topics covered include ion regulation, respiration and circulation. (3h lab) Prerequisite: BIOL 1113, BIOL 1123, BIOL 2013, BIOL 2073, each with minimum grade of C-. Antirequisite: Major credit cannot be obtained for both BIOL 3173/BIOL 3183 and BIOL 2823 although BIOL 2823 can be used as a science elective.

## BIOL 3183 Vertebrate Physiology 2

Topics covered include endocrinology, muscle physiology, basic neurophysiology, receptor physiology and thermoregulation. (3h lab) Prerequisite: BIOL 3173 with a minimum grade of C-; Corequisite: CHEM 2513. Antirequisite: Major credit cannot be obtained for both BIOL 3173/BIOL 3183 and BIOL 2823 although BIOL 2823 can be used as a science elective.

## BIOL 3243 Plant Growth and Development

The factors and mechanisms involved in the regulation of plant growth and development. Topics include phytohormones, differential growth responses, dormancy, photomorphogenesis and photoperiodism. (3h lab) Prerequisite: BIOL 2013, BIOL 2043, each with minimum grades of $C$-, or permission of department.

## BIOL 3253 Phycology

A survey of the marine macrophytic algae, their comparative morphology, taxonomy, and ecology. (3h lab) Prerequisite: BIOL 1113/BIOL 1123 with a minimum grade of C-.

## BIOL 3293 Flora of Nova Scotia

A survey of the autumn flowering plants and ferns of the province. Identification by technical keys; important plant families; field recognition of common species; habitat preferences; collecting methods. A collection of 50 plants, properly annotated, must be prepared. Lecture and Field work. (3h lab) Prerequisite: BIOL 1113/BIOL 1123 with a minimum grade of $C$-, or permission of department.

## BIOL 3363 Biodiversity

Global patterns of biodiversity and the underlying processes generating them. (3h lab) Prerequisite: BIOL 1113/BIOL 1123 with a minimum grade of C-.

## BIOL 3373 Aquatic Ecology

An introduction to freshwater and marine ecosystems emphasizing the relationships between structure and function, human activities that impact natural processes and procedures for assessing the health of aquatic ecosystems. Field and laboratory work required. (3h lab) Prerequisite: BIOL 1113/BIOL 1123 with a minimum grade of C-.

## BIOL 3413 Research Topics

Laboratory or field investigations, or review of research topics in biology. Students participate in a research study which may include planning, developing suitable procedures and techniques, and/or undertaking a review or critical evaluation. Each student will write a research report and present findings. The research must be supervised by a member of the department. Prerequisite: permission of supervisor and department.

## BIOL 3423 Histology 1

This course examines the cells, tissues and organs of vertebrate animals, with emphasis on structure, function, development and repair. Histology 1 emphasizes the primary tissue types, as well as the circulatory and nervous systems. (3h lab) Prerequisite: BIOL 2013 with a minimum grade of $C$-.

## BIOL 3433 Histology 2

Emphasizes the structure and functions of organ systems in vertebrates, including digestive, endocrine, reproductive and sensory systems. This course is offered in a learner centred format and is based on collaborative learning. (3h lab) Prerequisite: BIOL 3423 with a minimum grade of C-.

## BIOL 3463 Evolution

A critical analysis of concepts and analytical methods in evolutionary biology. Topics include basic population genetics, the analysis of adaptations, natural and sexual selection, species and speciation, systematics and phylogenetic methods. Recent developments in evolutionary biology (e.g. Darwinian medicine, evolution of infectious diseases) are discussed. Prerequisite: BIOL 2023 with a minimum grade of C; BIOL 3033 recommended.

## BIOL 3523 Pathogenic Microbiology

This course examines the ceaseless struggle between the antimicrobial defences of humans and the virulence factors of bacterial and protozoan pathogens. Important human infectious diseases will be studied as examples of the contest between hosts and parasites, and as examples of how modern medicine is driving evolution of human pathogens. (3h lab) Prerequisite: BIOL 2053 with a minimum grade of C-.

## BIOL 3553 Immunology

An introduction to the fundamental concepts of the defences of mammals and other organisms at the molecular, cellular and system levels. Topics include the organization and regulation of the immune system, cellular interactions among immune system components, immune dysfunction, and specific immune responses against pathogenic viruses, bacteria, fungi, and protozoan and metazoan parasites. (3h lab) Prerequisite: BIOL 2013, BIOL 2053 and BIOL 2073, each with a minimum grade of C-.

## BIOL 3563 Viruses: Biology and Evolution

Introduction to virology in terms of structure and function of all of the major known classes of viruses. Includes viruses and subviral particles that affect hosts in all domains. Aspects of medical virology will be explored, as will the ecology and evolution of viruses. (3h lab) Prerequisite: BIOL 2053 with a minimum grade of C-.

## BIOL 3573 Applied and Environmental Microbiology

Earth could not support life without the activities of microorganisms. This course will examine the essential roles that microbes play in the biosphere, the unusual and surprising ways that they have adapted to harsh niches, and how humans are increasingly exploiting their biochemical abilities in food production, water purification, medicines, soil improvement and energy recovery. (3h lab) Prerequisite: BIOL 2053 with a minimum grade of C-; BIOL 2013 with a minimum grade of C- or permission of the instructor.

## BIOL 3583 Eukaryotic Microbiology

An introduction to the structure, function, evolution and biodiversity of unicellular eukaryotic organisms, including protozoa, microbial fungi and unicellular algae. The ecology of free-living eukaryotic microbes and the immune responses of humans and other animals against pathogenic species will be discussed in detail. Laboratories include experiments with live protozoa and microscopical observations of prepared microbes. ( 3 h lab) Prerequisite: BIOL 2013, BIOL 2043, BIOL 2053 and BIOL 2073, each with a minimum grade of $C$-.

## BIOL 3613 Molecular Genetics and Genomics

An advanced genetics course that builds upon the topics covered in Principles of Genetics, with a focus on the molecules that transmit and express genetic information and functional genomics. Current topics, including medical applications, and scientific
approaches will be discussed throughout the term. Prerequisite: BIOL 2023 with a minimum grade of $C$-.

## BIOL 3623 Genetics 2

The study of DNA and how it can be used to help understand gene expression and genetic mechanisms in evolution, and gene organization. (3h lab) Prerequisite: BIOL 3613 with a minimum grade of $C$-.

## BIOL 3633 Topics in Cell Biology

Major topics to be covered include cell junctions, the extracellular matrix, cellular communications, signal transduction, and the structure and function of the cytoskeleton.
Prerequisite: BIOL 2013 with a minimum grade of C- or CHEM 2713.

## BIOL 3663 Introductory Mycology

An introduction to Kingdom Fungi, including biology, taxonomy, ecology and identification of fungi, with an emphasis on field collections and documenting Nova Scotia's fungal diversity. Topics include plant-fungal, fungal-animal and fungal-bacterial interactions, fungal secondary metabolites, marine fungi, as well as industrial, medical, veterinary, forestry and agricultural applications of the study of fungi. Prerequisite: BIOL 2013, BIOL 2043, BIOL 2053 each with minimum grade of C-, or permission of department.

## BIOL 3753 The Arctic Environment

An introduction to the extreme world of Arctic terrestrial, aquatic and marine environments and biota. Topics will include the physical and ecological setting, food webs, wildlife diseases, key and iconic wildlife species and threats to their health, as well as an environmental and ecological perspective on history, peoples, and current issues. Focus on Canadian Arctic regions. Prerequisite: BIOL 1113 with a minimum grade of C- or permission of the instructor. Recommend completion of at least one second year biology course.

## BIOL 3843 Marine Invertebrate Zoology

A survey of the major invertebrate phyla, their morphology, taxonomy and evolutionary relationships. Local marine species are emphasized and studied from both living and preserved materials. Field trips required. (3h lab) Prerequisite: BIOL 2073 with a minimum grade of $C$-.

## BIOL 3883 Chemical Ecology

Chemical Ecology examines the roles of chemical cues in the lives of animals, plants and microbes, including informative roles, such as mate location, navigation, sociality, resource procurement and defense. Topics will include relationships between chemical cues and environmental issues, including applied aspects and physiological processing of chemicals by organisms. (3h lab). Prerequisite: BIOL Core, CHEM 2513.

## BIOL 4023 Intellectual Origins of Modern Biology

A brief survey of major developments in biological thought. The philosophical basis of modern biology will be examined with emphasis on the development of the scientific method. The development of evolutionary thinking and the other major concepts in biology will be traced. May not be used by arts students as a science credit. Prerequisite: $12 h$ in BIOL above the 1000 -level completed with a minimum grade of C-.

## BIOL 4113 Fish Biology and Fisheries Science

This course will cover two topic areas. Fish biology topics will include functional morphology, evolution, behaviour, and zoogeography of marine and freshwater fishes. Commercial and recreational fisheries topics will include population biology, conservation, socio-economics, and fisheries science on local to global scales. Labs will
emphasize morphology and identification of fishes, and the application of fisheries science. (3h lab). Prerequisite: BIOL 2073 plus one of BIOL 2563, BIOL 3113, BIOL 3373, or BIOL 4543, or permission of the instructor. Prerequisite courses must be completed with a minimum grade of C-.

## BIOL 4123 Mammalogy

Evolution, functional morphology, reproduction, physiology, evolutionary and behavioural ecology of mammals. Labs stress classification, anatomy and functional morphology. Field trips. (3h lab) No Prerequisites.

## BIOL 4153 Entomology

An introduction to the structure, function, evolution and taxonomy of the insects, the most diverse and abundant group of animals. Topics also include the ecology, behaviour, and impact, both in medical and economic terms, of these animals. A collection of insects gathered on field trips during regularly scheduled laboratories is required. (3h lab) Prerequisite: BIOL 1113/BIOL 1123, BIOL 2073, each with a minimum grade of C-.

## BIOL 4163 Ornithology

Birds from an ecological and evolutionary perspective. The fossil record, hybrid zones, biogeography, classification. Flight and associated morphological and physiological changes. Brains and hormones, migration and navigation, song, territoriality, sexual selection, sperm competition, nests, eggs, incubation, parental care, sex ratio manipulation, cooperative breeding, brood parasitism, longevity, population monitoring. (3h lab) Prerequisite: BIOL 3113 with a minimum grade of C- or permission of the instructor.

## BIOL 4173 Specialized Microscopy Techniques

Sectioning, differential staining and SEM techniques. Prerequisite: permission of the instructor.

## BIOL 4213 Plant Ecophysiology

The physiological basis for the interaction of the individual species with its environment. Included are discussions of the energy environment of the plant and how temperature, light, water status, soil conditions, etc. affect plant function and distribution. (3h lab) Prerequisite: BIOL 2043 with a minimum grade of $C$-.

## BIOL 4333 Microbial Ecology

The ecological importance of microorganisms in specific environments. The dynamics of microbial populations and interactions with other organisms. (3h lab) Prerequisite: BIOL 2053 with a minimum grade of C-; BIOL 3373, and BIOL 3513 recommended.

## BIOL 4413 Research Topics 2

This course consists of advanced laboratory and/or field investigations of some research topic in biology. Each student will write a research paper and present his or her findings. The research must be supervised or co-supervised by a faculty member in the Department of Biology. Prerequisite: BIOL 3413 with a minimum grade of C-Credit can only be obtained for BIOL 4413 if there is minimal overlap with BIOL 3413 and BIOL 4996.

## BIOL 4423 Conservation Biology

Human impacts on the biosphere; historical and present worldviews of humans and nature; reserve design; landscape ecology; integrated forest wildlife management; minimum viable populations and species at risk. (3h lab) Prerequisite: BIOL 1113/BIOL 1123 with a minimum grade of $C$-.

## BIOL 4443 Comparative Animal Physiology

Lectures, research and student seminars emphasizing physiological similarities and differences of vertebrates and invertebrates. Prerequisite: BIOL 3183 with a minimum grade of $C$-.

## BIOL 4453 Comparative Immunology

Lectures, discussions of current literature, and independent research seminars will focus on similarities and differences of immune systems of major groups of invertebrates and vertebrates, with an emphasis on the role of immunity in shaping the life histories of these animals and the viruses, bacteria, fungi, and protozoan and metazoan parasites that attempt to infect them.

## BIOL 4523 Histochemistry

Theory and application of the basic histological methods used in biology. (1h lecture, 6h lab) Prerequisite: BIOL 3433 with a minimum grade of C-.

## BIOL 4543 Coastal and Estuarine Ecology

The physical, chemical and biological features and processes of coastal and estuarine waters. Ecosystem health indicators and impacts of pollutants, invasive species, tidal energy extraction, rehabilitation of coastal wetlands and estuaries, and other anthropogenic activities will be discussed. Field work on nearby shores and estuaries is required. (3h lab) Prerequisite: BIOL 2073 with a minimum grade of C-.

## BIOL 4613 Topics in Genetics

Selected current topics in the field of genetics/cell biology. Prerequisite: BIOL 3613 with a minimum grade of C - and permission of the instructor.

## BIOL 4653 Seminar in Ecology

This course explores current topics in ecology through presentations, analysis, and critiques of recent papers in ecology journals. Students will gain an in-depth expertise in reading, discussing and critiquing the ecological literature.

## BIOL 4673 Molecular Markers in Ecology and Evolution

A hands-on introduction to the use of molecular tools to study questions in ecology and evolution. Students will be introduced to a variety of molecular techniques and analytical methods. Students will be required to complete an individual project using one or more molecular tools. (3h lab) Prerequisite: BIOL 2023, BIOL 3613 each completed with a minimum grade of C-; prerequisite or Corequisite: CHEM 2513, CHEM 2713 or permission of the instructor.

## BIOL 4833 Conservation Genetics

The application of principles from evolutionary and population genetics to the conservation of biodiversity. The lecture focuses on theoretical foundation of the field while the laboratory focuses on current methods of data analyses. Discussion groups will be formed to study prominent case studies for both plant and animal species. (3h lab) Prerequisite: BIOL 1113/BIOL 1123, BIOL 2023 with minimum grades of C-, or permission of the instructor.

## BIOL 4863 Wildlife Biology and Habitat Management in Nova Scotia

 This course examines current approaches to wildlife and habitats management in Nova Scotia's coastal, urban, forested, agricultural, and industrial landscapes by focusing (1) on practices, guidelines, policies and laws and (2) on ecological principles through field labs and lectures, to support problem solving and decision making required for effective wildlife and habitat management. This course will benefit people currently working in resource management who are interested in staying current in wildlife and habitat management.
## BIOL 4996 Honours Thesis

This course includes a written thesis and a thesis defense, an oral comprehensive exam and a short presentation to the biology department. Prerequisite: permission of thesis supervisor and department.

## BUSINESS ADMINISTRATION

For non-business students, any prerequisite listed for a particular course does not apply if

1) the particular course is required for the program in which the student is registered, and
2) the prerequisite is not a required course for the program in which the student is registered. Otherwise, students will not be permitted to take a course without the necessary prerequisites unless they have the permission of the instructor and director.

## BUSI 1013 Financial Accounting 1

An introduction to financial statements from both the preparer's and user's perspectives. Students learn how to prepare, read and analyze the income statement, balance sheet and cash flow statement. Students will also learn how financial accounting supports organizational decision making.

## BUSI 1053 Introductory General Accounting and Finance

Introduction to accounting and finance, including i) financial statement preparation, basic financial statement analysis and use in decision making ii) cash flow budgeting, ratio analysis, time value of money and general budgeting. Prerequisite or Corequisite: BUSI 1703 with C- or better. Note: This course is not recognized within the BBA program or any program that requires BUSI 1013, 2033 or 2223. Credit cannot be obtained for both BUSI 2053 and any of BUSI 1013, 2033, 2223 or 2233.

## BUSI 1413 Introduction to Business Research

An introduction to the conceptual underpinnings of quantitative research design and analysis. It introduces students to business data collection and analysis and the analytic research methodologies used in business organizations. Students will define and identify business information requirements, develop the appropriate alternatives for gathering information, determine the use and value of primary versus secondary data, and utilize the appropriate analyses. Prerequisite: BUSI 1703, COMM 1213, and MATH 1613 or MATH 1013, all with C- or better.

## BUSI 1703 Introduction to Business

Introduces students to the various structures of business, industry, and organizations, the influence of external factors on organizations, the interrelationship with society, the functional areas of business, and the role of managers. This is done from an historical perspective, understanding how business and our market system have developed over time, and how philosophies and ideologies have influenced businesses development.

## BUSI 2013 Management Accounting

The development of various accounting concepts as an aid in managerial decisions. An examination of the information provided by financial statements, reports, budgets and other sources of data available to management. The role of accounting in the business environment and its relationship to general decision theory. Prerequisite: BUSI 1013 with $C$ - or better.

## BUSI 2033 Financial Accounting 2

A continuation of the study of introductory financial accounting from both the preparer's and user's perspectives. Students study financial accounting concepts, methods, standards and techniques. Topical coverage includes cash and internal control, receivables, inventories, capital assets, current and long term liabilities, shareholders' equity, and financial statement analysis. Prerequisite: BUSI 1013 with C- or better.

## BUSI 2153 Overview of Business Processes

This course focuses on the core operational processes involved in the production and delivery of products and services. Emphasizing basic quantitative analysis, the topics covered in the course include: process design and analysis, capacity analysis, facility layout, quality management, project management, scheduling, aggregate planning, supply chain management (SCM), inventory management, and just-in-time production (JIT) systems. Prerequisite: BUSI 1703 with a mark of C- or better. Note: this course is not recognized within the BBA program or any other program that requires BUSI 2513.

## BUSI 2223 Fundamentals of Finance 1

A combination of lectures, problem-solving, case studies, group discussions, current events and field research are used to introduce students to the theory and practice of corporate finance. The course will focus on the basic concepts of securities markets, financial analysis, cost-benefit analysis and decision making under conditions of uncertainty. Prerequisite: ECON 1013, /ECON 1023, and ECON 2613, MATH 1613 or MATH 1013, each with C- or better and BUSI 2013 as a corequisite.

## BUSI 2233 Fundamentals of Finance 2

A combination of lectures, problem-solving, case studies, group discussions, current events and field research are used to introduce students to the theory and practice of corporate finance. The course continues on from the Fundamentals of Finance 1 course to further explore financial decision-making under conditions of uncertainty and the riskreturn trade-off in corporate finance. Prerequisite: BUSI 2223 with C- or better.

## BUSI 2413 Introductory Marketing

An introduction to marketing for non-business students to develop a broad understanding of marketing concepts. Prerequisite: BUSI 1703 with C- or better. Antirequisite: Credit cannot be obtained for both BUSI 2413 and 2423. Note: This course is not recognized with in the BBA program or any other program that requires BUSI 2423.

## BUSI 2423 Marketing Principles

The basic concepts and principles of marketing as practiced by organizations. The intent is to provide students with an understanding of how the marketing function fits within the overall structure of the organization and how it contributes to achieving the organization's mission. Areas include the marketing environment, marketing research, consumer behaviour, the marketing mix (4P's), segmentation, targeting, positions, and marketing strategy. Prerequisite: COMM 1213, ECON 1013 and ECON 1023 each with C- or better and BUSI 2013 as a corequisite.

## BUSI 2433 Marketing Strategy

A continuation of BUSI 2423 with an emphasis on the application of basic concepts and theories to a variety of marketing issues. The intent of this course is to provide students with a deeper understanding of the process of formulation, implementation, and management of marketing strategy. Using the case study method, students will gain experience in analysis and decision-making skills. Prerequisite: BUSI 2423 with C- or better.

## BUSI 2513 Operations Management

A general management approach to the fundamental aspects of manufacturing and service operations. Decision making in the areas of process selection, capacity analysis, layout, planning and scheduling, job design, quality and inventory control. Prerequisite: ECON 1013, ECON 1023 and ECON 2613, MATH 1613 or MATH 1013, each with C- or better and BUSI 2013 as a corequisite.

## BUSI 2733 Organizational Behaviour 1

The behaviour of individuals and groups in organizational settings. The effects of personality, perception, learning and motivation on individual performance. The interaction between individual determinants of behaviour and group dynamics. Prerequisite: BUSI 1703 and COMM 1213 with C- or better.

## BUSI 2743 Organizational Theory

This course examines current theory and research on the design and behaviour of effective organizations. It focuses on developing in students an understanding of mainstream and alternatives theories of organizational and economics theories of the firm. Prerequisite: BUSI 2733 with C- or better.

## BUSI 2763 Organizations and Sustainability

Students will study frameworks, models, and tools for planning for and implementing sustainability focused strategies and activities within organizations. Perspectives on how organization impact social and environmental sustainability will be considered along with how aspects of sustainability impact the various dimensions of organization management (marketing, finance, operations, etc.). Various organizational types (for profit, non-profit, etc.) will be considered. Prerequisite: BUSI 1703 or both of ESST 1003 and ESST 1023.

## BUSI 2803 Business Technology Management

An examination of the general principles of information technology and current technologies. Emphasis is on managing technology, and the government's effort to develop standards and current industry policies. The management of technology is explored as a means of improving management and practice and creating strategic competitive advantage. The restructuring of organizations to accommodate these new technologies is also explored. Prerequisite: BUSI 1703, COMM 1213, MATH 1613 or MATH 1013, with C- or better.

## BUSI 2993 Professional Development

The course includes an introduction to business research methodologies, data analysis training, verbal communication skill development, and managing team based work assignments. The course is structured as a series of workshops, field work and visiting speakers that engage students in applied learning activities. The course is restricted to students enrolled in the BBA core, which typically occurs during students' sophomore year.

## BUSI 3063 Management Science

An introduction to the use of mathematical modeling to support managerial decision making. Modeling techniques covered include linear programming, regression analysis, time series forecasting and simulation. Spreadsheet software is used as the analytic platform for developing models. Prerequisite: BUSI 2513 with C- or better.

## BUSI 3073 Financial Accounting 3

Financial accounting functions and basic theory including conceptual framework underlying financial accounting. Statements of income and cashflows and balance sheet. Recognition, measurement and disclosure of assets, including inventories, investments and capital and intangible assets. The CICA Handbook will be used. Suitable for students considering a professional accounting designation or finance career. Prerequisite: BUSI 2013 and BUSI 2033, each with C- or better.

## BUSI 3083 Financial Accounting 4

This course builds on the concepts in BUSI 3073 and deals with liabilities, recognition, measurement and disclosure, shareholders' equity and special topics including corporate income tax and leases. The CICA Handbook will be used. Prerequisite: BUSI 3073 with Cor better.

## BUSI 3113 Cost Systems

Purposes of cost accounting; cost accumulation and responsibility centres; costing methods for product; process, job-orders, joint-products, by-products, and distribution (marketing); cost analysis and systems for planning, controlling, and decision making. Prerequisite: BUSI 2013 and BUSI 2033 with C- or better.

## BUSI 3233 International Finance

This course develops ability to understand and analyze issues in financial management in an international context. Emphasis is on decision-making skills in international capital markets and the financial function in the multinational corporation. Prerequisite: BUSI 2233 with a C- or better, BUSI 3273 or BUSI 3243.

## BUSI 3243 Intermediate Finance

This course delves further into the concepts and theories introduced in BUSI 2223, 2233, and introduces valuation, value-based management and strategic financing decisions. The course prepares the student for upper level finance electives. Prerequisite: BUSI 2233 with $C$ - or better.

## BUSI 3253 Personal Financial Management

This course develops the principles upon which the sound management of personal financial resources are based. Emphasis is placed on the understanding, mathematical analysis and evaluation of financial products and strategies within the context of the Canadian banking and taxation systems. Issues related to providing advice in the context of the financial services industry are emphasized. Prerequisite: BUSI 2223 with C- or better.

## BUSI 3273 Investment Analysis

Financial assets and the markets in which they are traded. The analysis of common and preferred stock, bonds, warrants, and working knowledge of investing. Prerequisite: BUSI 2223 with C- or better, or permission of the instructor.

## BUSI 3293 Managing E-Business

This course focuses on the foundations of e-business, business-to-consumer and business-to-business strategies. Topics include buying and selling on the world wide web, backoffice integration, impact of the business-to-consumer e-business on logistics and supply chain management, hardware and software of the internet, intranets and extranets, technological innovations and their impact, and competitive dynamics of firms operating in internet enabled operating environments. Prerequisite: BUSI 2223, BUSI 2423, and BUSI 2513 each with C- or better.

## BUSI 3313 Human Resource Management

The human problems of the management of all work situations, supervision by authority and motivation, communication and introduction of change, organization of work efforts, employee development, performance incentives, personnel policy, and management responsibilities. Prerequisite: BUSI 2733 with a C- or better.

## BUSI 3323 Employment Relations

Employment relations refers to the nature, practice, and outcomes of relations between management and non-union employees under an individual employment contract. The course will consider: the nature of the non-union employment relationship; employee rights in the legislated and common law of Canada; ensuring fairness through employee voice, involvement, and communication; related issues such as discipline, dismissal, job security, and downsizing. Prerequisite: BUSI 3313 with a C- or better.

## BUSI 3373 Personal Income Tax

This course explores the taxation of income for individuals and strategies to maximize after tax income. The main focus of the course pertains to issues involving residency, various sources of income, deductions, tax credits, tax rates, retirement planning, and income attribution. Prerequisite: BUSI 2013 and BUSI 2033 with C- or better.

## BUSI 3383 Taxation for Corporations

This course focuses primarily on the taxation of corporate income, distributions to owners, rollovers, and the sale of a corporation. Other topics include the taxation of partnerships, trusts, and GST/HST issues. Prerequisite: BUSI 2013 and BUSI 2033, with $a C$ - or better.

## BUSI 3433 Consumer Behaviour

The practices of business firms, the behaviour of consumers and consumer decision making. A behavioural science approach will be used to analyze and evaluate the consumer and business environments and the forces affecting them. Prerequisite: BUSI 2423 with C- or better.

## BUSI 3463 International Marketing Management

The focus of this course will be on the process whereby firms become international. Both market seeking and resource seeking motives for becoming international will be dealt with. Modes of entry such as exporting, licensing, joint ventures, will be covered extensively. Included will be topics such as opportunity selection, foreign partner selection, and ownership issues in joint ventures. Prerequisite: BUSI 2433 with C- or better.

## BUSI 3473 Marketing Research

This course provides students with a solid understanding of the use of marketing research. Exploring methods and procedures used in designing and executing a marketing research project (including analytic processes), students will understand how to evaluate research data and write research reports to support management decision making. Prerequisite: BUSI 2433.

## BUSI 3483 Advanced Business Research

The conduct of research. Topics will include research design from a variety of methodological perspectives, sampling, data collection, analysis and presentation of results. Practical projects done in conjunction with BUSI 3993 will be theoretically informed. Prerequisite: Registration in honours program. Corequisite: BUSI 3993.

## BUSI 3513 Production Models

The in-depth, systematic and rational analysis of problems facing production/operations managers. The course integrates a variety of models and techniques introduced in core courses and statistics. Prerequisite: BUSI 2513.

## BUSI 3613 Business Law

The course raises awareness of the relevance and importance of the law in business and enables students to use knowledge of the law to improve business decisions and avoid unnecessary legal difficulties. The key elements are the Canadian legal system; the basics of contracts and torts; and a framework for identifying and managing legal risks that confront firms. Prerequisite: BUSI 1703, COMM 1213, MATH 1613 or MATH 1013, each with $C$ - or better.

## BUSI 3623 Business Law 2

The course extends the topics of BUSI 3613 into the other areas of law that are important for business and presents the law in a way that relates to the functional areas of business. The course topics are organized under major headings - business organizations; types of
types of property; employment; marketing; and finance. Prerequisite: BUSI 3613 with Cor better.

## BUSI 3643 Consumer Law

A study of law as it relates to consumers in today's marketplace, with special emphasis on the protection of consumers in their purchase and use of goods and services. Federal and provincial legislation which affects the consumer are explored in detail.

## BUSI 3723 Organizational Change

A systems approach to change in organizations, illustrating the interrelationships of structure, technology, individual and group behaviour, and organizational climate. A seminar format is used, with discussion centering on a variety of analyses of organizational change, and a selection of case studies. Prerequisite: BUSI 2733 and BUSI 2743.

## BUSI 3733 Organizational Behaviour 2

A continuation of BUSI 2733 which focuses on the macro aspect of organizational behaviour. Topics will include group processes in the organization, organizational structure and the relationship of groups and individuals to organizational effectiveness, intergroup conflict, cooperation, power and politics, leadership, communication, team dynamics, and organizational culture and changes. Lectures, case studies, and experiential exercises. Prerequisite: BUSI 2733 with a C- or better.

## BUSI 3753 Gender and Diversity in Organizations

Students will be introduced to the diverse world of work by examining demographic trends, patterns of work, and subsequent legislative and non-legislative attempts to 'manage diversity'. Topics will include: the gendering of work; masculinity and femininity at work; sexuality and sexual orientation at work; race, class, and ethnicity at work; and ability/disability at work. Prerequisite: BUSI 2733 or WGST 2906 or permission of the instructor.

## BUSI 3763 Cross-Cultural Management

This course introduces students to important frames of reference, theories and concepts to understand the behavioural and social implications of managing culturally diverse organizations. Prerequisite: BUSI 2733.

## BUSI 3773 Entrepreneurship and Innovation

An examination of the entrepreneur's role in creating and revitalizing enterprises in the business sector, the social and not-for-profit sector (including community-based and informal sectors) and the public sector. Topics covered include: entrepreneurial aspiration and personal development; creativity; entrepreneurial behaviour (its characteristics and motivation); theories of entrepreneurship and its role in the economy; business opportunity selection (identification, assessment, development); innovation management in the corporate and the small business sectors; social entrepreneurship; government policy in support of entrepreneurship development. Learning media used in the course: case studies, research literature, experiential learning, and field projects. Prerequisite: BUSI 1703.

## BUSI 3813 Management Science 2

Continues BUSI 3063 with particular emphasis on extensions in mathematical programming, simulation and applications to various managerial problems. Prerequisite: BUSI 3063.

## BUSI 3853 Technology Innovation and Business

This course provides students with an overview of the principles and theories of technology strategies and the economics of innovation. Specifically, the course focuses on
management creativity and innovation processes and the development of strategies to leverage technology innovations in today's business environment. Topics such as the technology life cycle, incremental versus radical innovations, and process innovations are also discussed. Prerequisite: BUSI 28o3, BUSI 2743 with C- or better.

## BUSI 3913/3923 Special Topics

Special projects or topics not covered in the regular curriculum. Visiting instructors or Acadia faculty members may present specific subjects. Prerequisite: permission of school.

## BUSI 3993 Honours Seminar

Seminar, reading and discussion of scientific inquiry, problem formulation, literature research, theoretical formulation, and procedures and organization of honours research project. Development of research proposal. Prerequisite: Registration in honours program. Corequisite: BUSI 3483.

## BUSI 4013 Accounting Theory

An examination of the evolution of modern accounting thought, with emphasis on recent theoretical developments in the classification and valuation of balance sheet items, and in the problems of income measurement. Prerequisite: BUSI 3083 with C- or better.

## BUSI 4073 Financial Accounting 5

An advanced financial accounting course that includes a comprehensive coverage of reporting for portfolio investments, companies subject to significant influence, business combinations and joint ventures. Prerequisite: BUSI 3083 with C- or better.

## BUSI 4083 Financial Accounting 6

Techniques and theory for various specialized areas of financial accounting including: segmented information, interim reporting, foreign currency transactions and operations, businesses in financial difficulty, alternative measurement models, not-for-profit organizations, estates and trusts, fund accounting, government accounting, and personal financial statements. Prerequisite: BUSI 4073 with C- or better.

## BUSI 4113 Auditing

Auditing procedures for balance sheet and profit and loss items, staff organization and reports for internal control; auditing concepts, professional ethics, legal responsibility, and fraud. Prerequisite: BUSI 2033 with C- or better.

## BUSI 4143 Estate Planning

This course focuses primarily on the continuing process of wealth preservation and maximization within the context of retirement and succession planning. Topics covered include family law issues, trusts, gifting, tax deferral, tax preference, income splitting, business succession and state freezes, powers of attorney, wills, intestacy, and estate administration. Prerequisite: BUSI 2223 and BUSI 2233 each with C- or better, and BUSI 3223.

## BUSI 4223 Portfolio Management

This course focuses on modern portfolio theory and the issues and mathematics involved in managing portfolios of securities. Theory is applied to the understanding of pension fund management in a simulation exercise. Prerequisite: BUSI 3273.

## BUSI 4233 Financial Analysis and Policy

This course is a "capstone" course for students majoring in Finance. It is a case-based course. Through the analysis of finance cases, students will apply what they have learned in financial analysis, working capital management, capital budgeting, long term financing, and investments to real-life business situations. Prerequisite: BUSI 3243.

## BUSI 4243 Derivative Securities and Risk Management

This course provides a comprehensive introduction to derivative securities such as futures, options, and swaps. Various trading strategies are discussed and applications to financial risk management are emphasized. Prerequisite: BUSI 3273.

## BUSI 4253 Project and Enterprise Valuation

This course is a study of valuation methods for investments ranging from capital budgeting projects to the mergers and acquisitions of businesses. The theory and application of financial models for decision-making under uncertainty and the evaluation of strategic benefits are explored. Prerequisite: BUSI 3243.

## BUSI 4313 Labour Relations

The structure, functions, attitudes, and philosophy of labour organizations in collective bargaining; consideration of the behaviour of the actors in the labour relations scene; and consideration of the basic stages of the labour relations process (organization, certification, negotiation, grievance, arbitration) from the viewpoint of labour, management, and the law. Prerequisite: BUSI 3313.

## BUSI 4323 Seminar in Labour Relations

An expansion of BUSI 4313 into such topics as negotiation, grievance and arbitration, the general state of labour relations, the role of unions, Charter of Rights, layoffs, plant closures, and industrial democracy. Prerequisite: BUSI 4313.

## BUSI 4403 Advanced Marketing Management

This course builds on BUSI 2433 and examines the nature of marketing strategy from a macro and micro level. The intent of this course is to provide students with the latest issues facing marketing today as regarded by practitioners and marketing scholars. Various areas for discussion include marketing theory, relational exchanges, cognitive and affective consumer trust, diffusion of innovation. Prerequisite: BUSI 2433 with C- or better.

## BUSI 4413 Personal Selling and Sales Management

This course examines the use of personal selling within the context of the overall promotional effort of an organization, and how the sales function is managed to effectively achieve organizational objectives. Students will gain an understanding of how sales people create value for their customers and organizations, and how sales managers organize, recruit, select, motivate, and control the sales function. Prerequisite: BUSI 2433 with Cor better.

## BUSI 4423 Advertising and Promotion Management

This course encompasses the set of strategic decisions on the kinds of information needed for effective communication targeting, the development and use of creative strategies, on appropriate media scheduling, and on ways to measure the effects of the integrated marketing communications programs. Practitioner-oriented, it also examines other components of the communications mix including consumer sales and trade promotions, public relations, publicity and corporate sponsorship. Prerequisite: BUSI 2433 with a Cor better.

## BUSI 4433 Digital Marketing

This course builds on BUSI 2423 and BUSI 2433 as it applies and adapts traditional marketing strategy and actions to a digital context, examining the integration of digital marketing as a vital component of overall marketing strategy. Students will learn to evaluate website effectiveness, use search engines efficiently, create effectual social media strategies, and the basics of viral marketing. Prerequisite: BUSI 2433 with C- or better.

## BUSI 4483 Strategic Brand Management

This course is designed to introduce advanced concepts in branding and brand management to students concentrating in or with a keen interest in marketing. The course will cover the concepts, tools and techniques that are applied to successfully develop new brands and manage established brands. The course will involve lectures, case assignments and a comprehensive project. Prerequisite: BUSI 2433 with C-or better.

## BUSI 4543 Customer Management

This course builds on BUSI 2423 and 2433 in that it furthers the student's understanding of the importance of dynamic customer management. The course discusses current theory and practice in customer management such as customer relationship management (CRM), direct marketing, database management and marketing, and campaign management. Prerequisite: BUSI 2433 with C- or better.

## BUSI 4553 Venture Creation 1

Beginning with a hypothesized customer need and a proposed solution, students design experiments to discover whether the concept represents a potentially sound business idea. Lean Startup and customer development methodologies are applied as low-risk means of determining whether they have found a problem worth solving, and whether to proceed with the design and development of the proposed solution. Prerequisite: BUSI 3773 and fourth year standing in the BBA program, or permission of the instructor.

## BUSI 4563 Venture Creation 2

Students begin with a known customer need and a proposed solution, representing a potentially sound business idea. Students iterate through the Lean Startup build-measurelearn cycle by combining design thinking and rapid prototyping with qualitative and quantitative research methods to develop and test their minimum viable product with potential customers and establish product-market fit. Prerequisite: BUSI 4553.

## BUSI 4613 Small Business Management

The issues involved in the evolution and operation of the small business firm. Emphasis is on management, including such topics as starting new firms, purchasing existing firms, franchising, entrepreneurship, personnel, information systems, and marketing. Prerequisite: Open only to senior students.

## BUSI 4623 Advanced Business Law

An expansion of BUSI 3613 and 3623 into such topics as E-business government regulation of business, trade secrets, computer law, intellectual property, corporate law. Prerequisite: BUSI 3623.

## BUSI 4633 Ethics, Business and Society

The role of business as a responsible member of the community. Such topics as business ideologies, concentration of corporate power, relations with unions, the ethics of advertising, social justice and the free market, ethical responsibilities of managers, will be selected studies.

## BUSI 4653 Strategic Business Development

This course provides students with the opportunity to practice the design, implementation, and control of business development strategies. It is an operationally oriented course in which the application of business concepts, principles, and methods is important. Students will work in teams and use a computer simulation. Prerequisite: BUSI 2433 with a C- or better.

## BUSI 4663 Project Management

This course provides students with an introduction to the concepts, principles and techniques for the practice of project management. The material discusses the key
processes, including initiating, executing, monitoring and controlling of the personnel and resources, to accomplish specific project goals, from both technical and behavioural perspectives. Other topics include project scope and time management, cost, quality and risk management. Prerequisite: BUSI 2513, BUSI 2233, with C- or better.

## BUSI 4773 Social Entrepreneurship

This course considers the use of entrepreneurial skills to solve social problems through the creation and management of both not-for-profit and for-profit mission-driven ventures. Topics covered include: funding and financial sustainability; capital markets for social ventures; structuring social ventures; social leadership; measurement of performance with regard to social impact; innovation; leadership; opportunities for entrepreneurial social ventures (international development, education, environment, community development and other social issues); and opportunity identification and assessment. Learning media: guest speakers, case analysis, field projects. Prerequisite: BUSI 3773.

## BUSI 4883 Decision Support Systems

The decision making process and the information needed to support decision making. Discussions and cases centre on the organization environment, communications, quantitative techniques required for successful decision support systems. Prerequisite: BUSI 2823. Open only to senior students.

## BUSI 4886 Honours Applied Research Project

This course requires the student to conduct a study with a direct, practical application in a business context. The project will be substantial and grounded in theory, and will have a significant written component. The project will be carried out under the guidance of an approved supervisor. Prerequisite: BUSI 3483 and BUSI 3993 or equivalent and current registration in the honours program.

## BUSI 4893 Managing Information Technology

The use of information as a corporate resource and the problems encountered in managing information resources. Case studies and lectures centre on managing the system development process as well as evaluating the effect of technology on the corporate data base. Prerequisite: BUSI 2823. Open only to senior students.

## BUSI 4913/4923 Special Topics

Special projects or topics not covered in the regular curriculum. Visiting instructors or Acadia faculty members may present specific subjects. Prerequisite: permission of school.

## BUSI 4933/4943 Projects in Business

A project performed under the direction of either a faculty member or the Acadia Centre for Small Business and Entrepreneurship. Note: Students should apply to the school several months before the start of the course. Prerequisite: permission of the director of the school.

## BUSI 4953 Business and Corporate Strategy

This course establishes a foundation in the area of strategy formulation, implementation and analysis. Students learn from visiting business executives, undertake industry analyses, construct industry value chains, examine mergers and acquisitions, conduct SWOT and scenario analyses, search out new disruptive technologies and use other analytical approaches while profiling the formal strategies of major public companies. (2h Studio) Prerequisite: BUSI 2743, BUSI 2233, BUSI 2433, and BUSI 2513 each with C- or better.

## BUSI 4963 Strategic Issues in Business

Increasingly, business managers must address concerns of constituents beyond traditional business borders. Through the examination of some of the most important and complex issues facing today's management, students will gain an understanding of strategic fit between business strategies and the external environment. Prerequisite: BUSI 2743, BUSI 2233, BUSI 2433, and BUSI 2513 each with C- or better and BUSI 4953 as either a prerequisite or corequisite.

## BUSI 4996 Honours Thesis

This course requires the student to propose and carry out a research study under the guidance of an approved supervisor and submit a thesis in accordance with the Program Guidelines of the student's degree discipline and in a format approved by the Honours Committee of Senate. Prerequisite: BUSI 3483 and BUSI 3993 or equivalent and current registration in honours program.

## CHEMISTRY

## CHEM 1013 General Chemistry 1

An introductory treatment of the fundamentals of chemistry: atoms, molecules, ions, chemical equations, stoichiometry, enthaply, electronic structure and periodic properties of the elements, chemical bonding, and molecular structure, acids and bases, and gases. (3h lab) Prerequisite: NS 12 chemistry or equivalent with $60 \%$ or better or permission of department. Credit for laboratory component cannot be transferred to other Acadia courses with the exception of CHEM 1113. Antirequisite: Students may only receive credit for one of CHEM 1033, CHEM 1013, and CHEM 1113.

## CHEM 1023 General Chemistry 2

Properties of gases, liquids, solids, and solutions, chemical kinetics, chemical equilibria, acids and bases, thermochemistry, entropy and free energy, electrochemistry, and organic chemistry. (3h lab) Prerequisite: CHEM 1013. Credit for laboratory component cannot be transferred to other Acadia courses with the exception of CHEM 1123. Antirequisite: Students may only receive credit for one of CHEM 1043, CHEM 1023, and CHEM 1123.

## CHEM 1033 Introductory Chemistry 1

Basic concepts in chemistry including stoichiometry, periodic trends and bonding. This course is offered through Open Acadia. The laboratory work consists of video- and computer-based assignments. This course may only be used as a prerequisite for admission to other chemistry courses with the permission of the department.
Prerequisite: NS 12 chemistry or equivalent with $60 \%$ or better or permission of department. Antirequisite: Students may only receive credit for one of CHEM 1033, CHEM 1013, and CHEM 1113.

## CHEM 1043 Introductory Chemistry 2

Basic concepts in chemistry, including properties of gases, liquids, solids and solutions as well as acids and bases. This course is offered through Open Acadia. The laboratory work consists of video- and computer-based assignments. This course may only be used as a prerequisite for admission to other chemistry courses with the permission of the department. Prerequisite: CHEM 1033, CHEM 1013, or CHEM 1113. Antirequisite: Students may only receive credit for one of CHEM 1043, CHEM 1023, and CHEM 1123.

## CHEM 1053 Chemistry and Our World

This course provides an insight into our everyday world and normal life activities through the influence of the chemicals that make up that world. We will look at food and nutrition, food additives, vitamins, drugs, anaesthetics, cosmetics, household chemistry, plastics and biotechnology. We will also look into the process of discovery, scientific publishing and the issue of fraud in science. No prerequisite or corequisites. Credit cannot be obtained
for both CHEM 1053 and CHEM 2103. This course may be used as a science elective but may not be used to fulfill Major or Minor requirements for a degree in the Faculty of Science.

## CHEM 1113 Introduction to Chemistry Physical Sciences 1

Stoichiometry with applications to basic analytical chemistry, properties of ideal and real gases with applications to chemical processes in the gas phase, chemical equilibrium in the gas phase and in solution with emphasis on acid-base equilibrium, an introduction to chemical thermodynamics with applications to chemical equilibrium and electrochemistry. (3h lab) Prerequisite: NS 12 chemistry or equiv. with $60 \%$ or better; Corequisite: 1000-level calculus course. Concurrent registration in a 1000-level physics course is recommended. Antirequisite: Students may only receive credit for one of CHEM 1033, CHEM 1013, and CHEM 1113.

## CHEM 1123 Introduction to Chemistry Physical Science 2

Atomic structure and periodic trends with applications to chemical bonding and molecular structure; chemical kinetics, the properties of liquids, solids and solutions; the representative chemistry of Groups 1A through 4A. (3h lab) Prerequisite: CHEM 1113; Corequisite: 1000-level calculus course. Concurrent registration in a 1000-level physics course is recommended. Antirequisite: Students may only receive credit for one of CHEM 1043, CHEM 1023, and CHEM 1123.

## CHEM 2103 Physical Chemistry 1: Chemical Thermodynamics

Principles of chemical thermodynamics. Topics to be covered will include the first, second and third laws of thermodynamics and the applications of classical thermodynamics to chemical and phase equilibria and electrochemistry. (3h lab) Prerequisite: CHEM 1123 or 1023 with C- or better, MATH 2013 or 2753, and PHYS 1023.

## CHEM 2303 Inorganic Chemistry 1: Structure and Bonding

An introduction to atomic structure and bonding in inorganic compounds, with the use of group theory and molecular symmetry, a brief introduction to the coordination chemistry of the transition metals and related topics. (3h lab) Prerequisite: CHEM 1123 or 1023 with $C$ - or better.

## CHEM 2513 Organic Chemistry 1

An introduction to organic chemistry covering structure, nomenclature and reactions of the main classes of organic compounds. (3h lab) Prerequisite: CHEM 1023 or 1123 with $C$ - or better.

## CHEM 2533 Organic Chemistry 2

A more detailed treatment of the chemistry of functional groups with special attention given to carbonyl compounds. The student will be presented with a rigorous discussion of stereochemistry. The student will be introduced to 1-3 step organic reactions in the lab. (3h lab) Prerequisite: CHEM 2513 with a grade of C- or better.

## CHEM 2713 Biochemistry

An introduction to the major organic substances of living organisms, proteins, carbohydrates, lipids, and nucleic acids: structure, analysis and biochemical function. Activity and analysis of enzymes. (3h lab) Prerequisite: CHEM 2513 with C- or better. Antirequisite: Credit cannot be obtained for both CHEM 2773 and CHEM 2713.

## CHEM 2773 Biochemistry for Life Sciences

An introduction to the structure and function of major micro and macromolecules of living systems, basic principles of molecular biology and protein biosynthesis, biochemistry of vitamins and enzymes. Prerequisite: CHEM 2513 with a C- or better. Antirequisite: Credit cannot be obtained for both CHEM 2773 and CHEM 2713.

## CHEM 2813 Analytical Chemistry 1: Classical Methods

An introduction to chemical analysis: statistical data evaluation, gravimetry and titrimetry, basic UV-VIS spectrometry and introduction to chromatography. (3h lab) Prerequisite: CHEM 1023 or 1123 with a grade of C-. Antirequisite: Credit can only be obtained for one of CHEM 2813 or CHEM 2853.

## CHEM 2853 Environmental Analytical Chemistry

Introduction to chemical analysis with an emphasis on the chemistry of the environment. Examples studied will be taken from air, aquatic, and terrestrial sources. (3h lab) Prerequisite: CHEM 1023 or 1123 with C-or better Antirequisite: Credit can only be obtained for one of CHEM 2813 or CHEM 2853.

## CHEM 3103 Physical Chemistry 2: Chemical Kinetics

The principles governing chemical dynamics. Topics to be covered will normally include the kinetic molecular theory of gases, chemical kinetics, and electrochemistry. (3h lab) Prerequisite: CHEM 2103 with C- or better.

## CHEM 3113 Physical Chemistry 3: Quantum Chemistry

Principles of theoretical chemistry. The fundamental concepts of quantum mechanics are developed and applied to chemical bonding and molecular spectroscopy. Basics of modern computational chemistry are introduced to study the geometry, energy and spectroscopy of molecules. Prerequisite: CHEM 3103 with C- or better, MATH 2023 or MATH 2723.

## CHEM 3143 Surface Chemistry for Life Sciences

Special topics on the practical aspects of physical chemistry relevant to biological and industrial applications. Emphasis is on colloid, interfacial and surface chemistry. (3h lab) Prerequisite: CHEM 2713 or CHEM 2773 with C- or better.

## CHEM 3303 Inorganic Chemistry 2: Main Group Chemistry

A survey of the chemistry and bonding of the main group elements, including compounds with unusual bonding environments. Computational chemistry is introduced as a tool for understanding chemical bonding. (3h lab) Prerequisite: CHEM 2303 with C- or better.

## CHEM 3313 Inorganic Chemistry 2: Transition Metal Chemistry

A survey of the chemistry and bonding of the transition metals, including organometallic chemistry and inorganic compounds of biological interest. (3h lab) Prerequisite: CHEM 2303 with C- or better.

## CHEM 3513 Intermediate Organic Chemistry

An intermediate course which will study the chemistry of organic functional groups not covered at the 2000 level. Special attention will be given to the use of sophisticated organic reactions for the synthesis of more complex molecules. The student will be introduced to organic reactions on a microscale in the lab. The students will be introduced to organic reactions under inert and anhydrous atmosphere. (3h lab) Prerequisite: CHEM 2533 with a grade of C- or better.

## CHEM 3523 Structure Determination

Investigation of molecular structure by modern spectroscopic methods. Special emphasis will be placed on mass spectrometry and nuclear magnetic resonance for structure elucidation. (3h lab) Prerequisite: CHEM 2533 with C- or better.

## CHEM 3723 Metabolism

An introduction to intermediary metabolism and biochemical genetics. The major degradative and biosynthetic pathways of metabolism; energy changes and metabolic regulation; the molecular basis of genetic processes. (3h lab) Prerequisite: CHEM 2713 with $C$ - or better.

## CHEM 3823 Analytical Chemistry 2: Instrumental Methods

Modern molecular and atomic spectrometry, gas and liquid chromatography. (3h lab)
Prerequisite: CHEM 2813 with a grade of C- or better.

## CHEM 3913 Research Project 1

A research project sponsored and approved by one or more faculty members of the department. The student must take an active role in planning and implementation, and submit a written report upon completion of the project. Seventy-two (72) hours of research activity, normally spent conducting laboratory or field work, is required. Prerequisite: 18h lab-based chemistry courses with grades of $C$ - or better; requires permission of the department and the availability of a suitable research supervisor.

## CHEM 3923 Research Project 2

A research project sponsored and approved by one or more faculty members of the department. The student must take an active role in planning and implementation, and submit a written report upon completion of the project. Seventy-two (72) hours of research activity, normally involving laboratory or field work, are required. Prerequisite: CHEM 3913 with a grade of C- or better.

## CHEM 3990 Chemistry Seminar

Review and discussion of research projects in progress and related literature. All 3rd year students majoring in chemistry are required to attend.

## CHEM 4123 Physical Chemistry 4

Introduction to spectroscopy and statistical thermodynamics. The factors determining the intensities and wavelengths of electronic, vibrational and rotational spectra are examined. This leads to the application of spectroscopy as a source of molecular and atomic parameters for use in calculations with statistical thermodynamics. Applications of statistical thermodynamics to selected chemical systems will conclude the course. Prerequisite: CHEM 3103 and CHEM 3113 each with a grade of C- or better.

## CHEM 4313 Inorganic Chemistry 3: Transition Metal Chemistry

Topics of current interest in transition metal and organometallic chemistry are discussed. Emphasis will be on developing research areas in the scientific literature.
Prerequisite: CHEM 3303 or CHEM 3313 with grade of C- or better.
CHEM 4323 Inorganic Chemistry 3: Advanced Characterisation Techniques
A survey of characterisation techniques commonly used in inorganic chemistry, including: multinuclear NMR spectroscopy, EPR spectroscopy, computational chemistry and X-ray crystallography. Prerequisite: CHEM 3523 with a grade of C- or better.

## CHEM 4513 Synthetic Organic Chemistry

The principles involved in the planning and execution of the synthesis of organic molecules. A consolidation of the procedures learned in CHEM 2513, CHEM 2533 and CHEM 3513 with other modern synthetic methods. Prerequisite: CHEM 3513 with a grade of C- or better.

## CHEM 4523 Structure and Dynamics in Organic Chemistry

Includes the description of bonding in organic molecules and the methods for determining, analyzing, and predicting molecular structure, as well as the study of the physical properties and chemical transformations of molecules. Included are the more important reaction mechanisms and the methods by which these are elucidated.
Prerequisite: CHEM 3523 with a grade of C- or better.

## CHEM 4723 Topics in Biochemistry

Specific topics of current interest are discussed in some detail. Possible topics include DNA structure and function with an emphasis on topological implications, enzymology, protein structure/function analysis, and molecular genetics. Emphasis will be on current experimental techniques used in biochemistry. Prerequisite: CHEM 3723 with a grade of C-or better.

## CHEM 4733 Food Chemistry and Biochemistry

Chemistry of the major and minor constituents of food. Flavour and colour molecules, additives, contaminants, natural toxicants, and vitamins. Prerequisite: CHEM 2713 with a grade of C- or better.

## CHEM 4803 Advanced Chemical Instrumentation

Experimental data acquisition and conditioning. Selected electroanalytical, spectrometric and surface analytical methods. (3h lab) Prerequisite: CHEM 3823 with grade of C- or better or permission of the department.

## CHEM 4823 Applied Environmental Chemistry

Applications of analytical chemistry in elucidating the chemistry of the natural environment with an emphasis on current environmental issues. The course will focus on the role of analytical chemistry in studying the chemical composition of the natural environment and the cycling of natural and anthropogenic chemicals. Prerequisite: CHEM 3823 with grade of C- or better.

CHEM 4833 Instrument Design, Data Acquisition, Measurement, and Control The techniques required to use computers to read, store and analyze experimental data, as well as control experiments in real time, are introduced. Topics include a programming language, signal conditioning and processing, and several interfacing techniques. A major component of the course is a project involving interfacing a computer to an experiment. A rudimentary knowledge of computer programming is recommended. (6h lecture/lab) Prerequisite: PHYS 2203. Antirequisite: Credit cannot be obtained for both CHEM 4833 and PHYS 2213.

## CHEM 4903 Advanced Chemistry Laboratory

A capstone laboratory course designed to integrate and augment the content of previous chemistry courses. This may include labs in organic, inorganic, physical, analytical chemistry, and biochemistry. Students will select and carry out a number of short projects which are developed by faculty members in the various areas of chemistry. Students will be evaluated on their development of experimental procedures based on the chemical literature, scientific record-keeping, and preparation of reports. (no lectures, 6h lab) Prerequisite: fourth year standing in chemistry.

## CHEM 4916 Research Project for Chemistry Majors

This course consists of 144 h of advanced laboratory and/or field investigations of chemical research/education topics. Three platform presentations (research proposal, results, and a final presentation) and a written report are required. Prerequisite: permission of supervisor and department, and 3oh of chemistry courses. Antirequisite: Credit cannot be obtained for both CHEM 4916 and CHEM 4996. This course does not fulfill the 6h of chemistry at the 4000 level degree requirement.

## CHEM 4996 Honours Thesis

This course provides the student with an opportunity to carry out chemical research/education projects. The course requires 144 h of research activity conducting laboratory experiments and/or field work. This course includes presentations on a research proposal and research results, a written report, and an oral defense.

Prerequisite: permission of thesis supervisor and department, and 3oh of chemistry courses. Antirequisite: Credit cannot be obtained for both CHEM 4996 and CHEM 4916.

## CLASSICS

See the Latin and Greek sections for additional Classics courses

## CLAS 1113 Introduction to Greek Civilization

The main facets of ancient Greek civilization (its history, literature, thought, and art) with particular attention paid to that which unifies and defines it as Greek and determines the nature and extent of its contribution to western civilization.

## CLAS 1123 Introduction to Roman Civilization

The main facets of ancient Roman civilization (its history, literature, thought, and art) with particular attention paid to those features which determine the nature and extent of its contribution to western civilization.

## CLAS 2013 Greek Art and Architecture

The art of ancient Greece in its cultural and historical context, with emphasis upon architecture, sculpture, and painting. Prerequisite: 3oh of university courses or permission of the professor.

## CLAS 2023 Roman Art and Architecture

The art of ancient Rome in its cultural and historical context, with emphasis upon architecture, sculpture, and painting. Slides and other illustrative material. Prerequisite: 3oh of university courses or permission of the professor.

## CLAS 2233 Scientific Terminology

The Greek and Latin origins of the technical vocabulary of modern science. For biology and pre-med students, but of obvious interest to students of all sciences. An examination of the Greek and Latin root words in scientific terminology and their combination and modification in English. Prerequisite: 3oh of university courses or permission of the professor.

## CLAS 2273 Gods in Classical Myth

A study of the gods of classical mythology in Greek and Roman art and literature. From eighth century BCE epic poets of the Greek world through to the reassessment of classical myth under Roman authors. The course also considers contemporary approaches to studying classical myth. Prerequisite: 3oh of university courses or permission of the professor.

## CLAS 2283 Heroes in Classical Myth

A study of the hero and heroine in Greek and Roman mythology through art and literature. From legends of prehistoric Greece and the epic cycles of the eighth century through to the refashioning of the hero and heroine in Roman myth, this course emphasises contemporary approaches to interpretation of the heroic quest. Prerequisite: 3oh of university courses or permission of the professor.

## CLAS 2293 Cult of the Grape in Ancient Greece

From the cultivation of the grape to the cult of Dionysus, god of wine, this course shall study the economic, religious, social and cultural impact of wine on ancient Greece, with a special focus on classical Athens. No prerequisite.

## CLAS 2503: Introduction to Archaeology of the Ancient World

An introduction to the history of archaeological exploration in Prehistoric Europe, the Ancient Near East, and Classical Greece and Rome with an emphasis on the development
of archaeological methodology and theory. Prerequisite: 3 oh or permission of the instructor; not open to students who have taken CLAS 1503.

## CLAS 2553 Archaeology of Egypt

Egypt from the rise of civilization to the Roman era. This course examines the social and political institutions of Egypt from the perspective of archaeology and art history, including cultural and political relations with other major civilizations of the ancient world. Prerequisite: 3oh of university courses or permission of the professor.

## CLAS 2573 The Homeric Vision

A study of the cosmic vision of the relationship between gods and heroes in Homer's epic poems, the Iliad and the Odyssey, that informed the Greek institutions of polis (state) and oikos (family), paying special attention to the concept of gender and the status and role of men and women. May be offered for major credit in English and Women's and Gender Studies. No prerequisite.

## CLAS 2583 Classical Reception in Contemporary Culture

Classical culture in contemporary art, literature, and the popular culture of advertising, comics, film, music, graphic novels, sport and video games. Prerequisite: 3oh of university courses or permission of the professor.

CLAS 2663 Classical Greece: State and Society
A study of the social, economic and political institutions of classical Greece (450-350 BCE). Special attention will be paid to political constitutions, influence of gender on the roles of men and women in Greek society, institutionalisation of pederasty, household management, status of women and children, and practice of slavery. Prerequisite: 3oh of university courses or permission of the professor.

## CLAS 2673 Rome: Republic and Empire

This course examines Rome's political and institutional history with an emphasis on the evolving nature of state and society as documented in literary, epigraphic and archaeological evidence. Prerequisite: 3oh of university courses or permission of the professor.

## CLAS 2693 Special Topics

Prerequisite: 30 h of university courses or permission of the professor.

## CLAS 3113 Roman Law

The development of Roman private law, its main features, and its influence on later western law. Criminal law will also be examined. Prerequisite: 3oh of university courses or permission of the professor.

CLAS 3123 Gender and Sexuality in the Greco-Roman World
A study of the social and cultural dimensions of gender and sexuality in the ancient GrecoRoman world. Prerequisite: 3oh of university courses or permission of the professor.

## CLAS 3333 Greek Historians and Historiography

A study of the origin and development of historiography in ancient Greece involving the intensive study of the major classical historians in translation. May be offered for major credit in history. Prerequisite: 3oh of university courses or permission of the professor.

## CLAS 3343 Roman Historians and Historiography

An in-depth study of the historiography of ancient Rome and the Roman Empire as written by the major Latin- and Greek-language historians from the first century BCE to the fourth century CE. The legacy of these historians to later historiography and modern
scholarship will also be considered. May be offered for major credit in History. Prerequisite: 30 h of university courses or permission of the professor.

## CLAS 3423 Greek and Roman Novel

The prose romance and novel of the later Greek and Roman world in the context of the social, intellectual, and cultural life of this era. Prerequisite: 3oh of university courses or permission of the professor.

## CLAS 3443 Roman Women and the Family

Focusing on the lives of Roman women through a critical examination of the ancient literary, art historical and epigraphic records, this course considers women in all socioeconomic classes and introduces students to the gender system and realities of Roman society. Prerequisite: 3oh of university courses or permission of the professor.

## CLAS 3453 Fieldwork in Classical Archaeology

A seminar in archaeology and field methods offered in the summer, typically off campus. This course involves a 30-day study period in the Mediterranean focusing on classical archaeology. Due to funding and supervision this will be offered with limited enrolment. Prerequisite: 3h from CLAS 1503, CLAS 2013, CLAS 2023, CLAS 2503 or equivalent.

## CLAS 3573 The Eternal City: Visions of Heaven \& Hell

A comparative study of the 'eternal city' in Virgil's Aeneid and Dante's Divine Comedy as rival visions of human community (paying special attention to the concept of gender and the status and role of men and women) based on different conceptions of the divine and the afterlife. May be offered for major credit in English and Women's and Gender Studies. No prerequisites.

## CLAS 3673 Ritual, Mystery and Temple in Roman Religion

An examination of the archaeological and literary evidence for the religions of Rome. Attention is given to private and public religious activities and their roles in supporting the state. As religion is an aspect of daily life in which women and slaves had significant roles, gender and status are important components of the subject. May be taken for Women's and Gender Studies credit. Prerequisite: 3oh of university courses or permission of the professor.

## CLAS 4996 Honours Thesis

## COMMUNICATION

## COMM 1213 Communication 1

Development of the basic skills needed for effective communications. Communication theory is introduced. Grammar and sentence structure are taught. Emphasis is upon developing an effective, concise, direct writing style. Students also learn the appropriate techniques and formats for writing reports and letters, and how to plan and deliver oral presentations and speak in public.

## COMM 1223 Communication 2

The course is designed to develop the skills necessary for effective oral communication. Basic communication concepts are introduced, stage-fright/anxiety management is addressed, and strategies for successful presentations and engaging public speeches are explored. A combination of written and oral presentation assignments will allow students to develop skills in writing for the spoken word. The emphasis is upon developing a clear and concise speaking style for both personal and professional purposes.

## COMMUNITY DEVELOPMENT

## CODE 1013 Leadership in Community Development

A theoretical and experiential investigation of leadership and group dynamics for professional and voluntary settings. Emphasis is given to the application of theory for effective leadership of groups and organizations within a community development context (1.5h lab). Prerequisites: Restricted to first year CODE students. Antirequisite: Credit cannot be obtained for both CODE 1013 and ESST 2003.

## CODE 1023 Environment and Sustainable Society

Humanity is facing a global environmental and sustainability crisis due to its use of resources, activities and lifestyles, particularly by wealthier populations. This introductory course explores dimensions of this crisis including climate change, food systems, oceans, life cycle analysis and consumerism. It also examines hopeful innovations and accomplishments by individuals, organizations and communities in shifting to more sustainable societies. Open to non-majors.

## CODE 1033 Community Development

An exploration of the characteristics of healthy communities and models of community building as a means to enhance quality of life for individuals and groups. The course takes a systems approach in providing an overview of the principles and strategies for the assessment and development of community wellness, drawing on examples from geographic communities and communities of interest. (1.5h lab) Open only to Community Development majors or permission of the Department.

## CODE 1100 Emergency Care

"Standard First Aid" and CPR level C or approved equivalent must be completed prior to the second year of study. Students will be required to maintain current certification during their second, third and fourth year. Code 1100 must be completed before the commencement of the second year. Open only to Community Development majors.

## CODE 1523 Outdoor Recreation Management

This course examines the foundations of outdoor recreation management. Emphasis is placed on the role that outdoor recreation and adventure plays in people's lives and the management challenges inherent in protecting outdoor settings to provide high quality experiences. Open to non-majors.

## CODE 1533 Sustainable Tourism

Sustainable tourism provides a framework for examining tourism. Topics include tourist behaviour, tourism planning, socio-cultural, marketing, and the role of tourism organizations. Case studies will emphasize both theoretical and applied dimensions of sustainable tourism. Open to non-majors.

## CODE 1543 Critical Perspectives of Sport and Physical Activity in Society

 This course encourages students to think critically about the nature of sport and physical activity in relation to leisure. Particular attention is placed on how sport and physical activity have become both the products of and producers of dominant contemporary cultures. Open to non-majors.
## CODE 2013 Community Program Design

The course examines the community and recreation programming process from organizational culture, through program development, to implementation and evaluation. Case studies as well as intensive small group work to design and lead a significant community program are used to facilitate program design understanding and skills. Open only to Community Development majors.

## CODE 2023 Community Development Research Methods

The role of research within community development. Issues related to the development of research questions, and the collection, interpretation and application of research data are examined. Prerequisite: second year standing in BCD. Antirequisite: Credit cannot be obtained for both CODE 2023 and ESST 3003.

## CODE 2033 Sustainable Community Development

This course explores the various dimensions of community capital (e.g., natural, environmental, economic, and socio-cultural capital) and how these can be managed for sustainable community. Tools and concepts for conceiving, planning, and managing sustainable community will be examined from a transdisciplinary perspective drawing on readings, case studies, and field experiences.

## CODE 2513 Concepts of Leisure

This course will examine individual and group leisure behaviour, and the many roles of leisure in society. An emphasis will be placed on the social construction of leisure within Canadian society. Prerequisites: second year standing in BCD.

## CODE 3013 Community Design, Wellness and Active Living

A key challenge for all communities is to manage their infrastructure to enhance community wellness while ensuring long term social, economic, and environmental sustainability. This course examines the influence of a community's infrastructure-defined as the interacting system of physical structures, services, institutions, and policies that impact a community's overall physical, emotional, spiritual, and economic health--on active living. Prerequisites: third year standing in BCD, ESST \& KINE or permission of the Department.

## CODE 3100 Conference

Students are required to attend and participate in a two-day conference prior to graduation. Information about conference and criteria for expectations will be provided according to the Community Development Handbook. The advisor's written approval of the conference must be obtained prior to attendance and post conference evaluation must be submitted. Open only to Community Development majors.

## CODE 3513 History and Philosophy of Leisure

A historical and philosophical overview of the roots of leisure, the conditions in society that have affected leisure, and the societal and institutional responses to those conditions through recreation management and community development. Prerequisite: third year standing in BCD.

## CODE 3523 Parks/Open Space Resource Development

A seminar which explores issues and management topics related to human use of parks and open space. Seminars will address a variety of ethical and technical topics including environmental impact assessment, sustainable development and system policy. Prerequisite: third year standing in the BCD or BA ESST or permission of the Department.

## CODE 3543 Natural Resource and Environmental Management

The exploration of theory and issues in natural resource and environmental management with emphasis on rural community development issues, ecosystem management, outdoor recreation and nature based tourism. The theoretical focus will be on policy decision making. Case studies will be drawn from forestry, agriculture and land-use planning fields as well as natural resource recreation and tourism, and parks and protected areas management. Prerequisites: open to non-majors, third year standing or permission of the Department.

## CODE 3553 Leisure Education Principles and Processes

This course will focus on understanding the sources of leisure education in society today, principles that underlie leisure education, and approaches used to educate various segments of the population about leisure. Various models, assessment tools, and intervention strategies of leisure education are introduced and discussed. Content will include the design, delivery, and evaluation of various types of leisure education initiatives. Prerequisite: third year BCD standing or permission of the Department.

## CODE 3563 Environmental Education

Environmental education is critical to shifting toward a more sustainable society. This seminar, emphasizing experiential and community learning, provides an overview in leisure, educational, community and work settings. Emphasis is on philosophy, concepts and techniques required to create powerful interactive programs. Prerequisite: $C O D E$ 1023, ENVS 1013 or permission of the school, open to non-majors (2.5h lab).

## CODE 3573 Festival and Special Event Management

A systematic approach to the planning, development, marketing and staging of major community events and festivals as tourist attractions, catalysts for development, and image builders for attractions, communities and destinations areas. Particular attention will be given to the needs of performers, participants and local residents as they relate to the fields of event tourism and festival and event management. Prerequisite: enrolment in $B C D / B K I N$.

## CODE 3583: Diversity and Inclusion

This course will examine the challenges, rewards and best practices of how communities embrace diversity, while creating a culture of equity and inclusivity. Using problem-based learning and critical reflection students will explore diversity and inclusion topics of interest that relate to community engagement. Prerequisites: third year standing in BCD or permission of Department.

## CODE 3593 Ecotourism and Nature Based Tourism

An examination of ecotourism's and nature tourism's impacts on host communities, natural resources, visitors, and community infrastructure as well as its influence on broader environmental, social/cultural, and economic sustainability processes. Illustrative case studies will be drawn from a broad range of Canadian and international examples (open to non-majors). Prerequisite: third year standing or permission of the Department.

## CODE 3603 Sustainable Food Systems and Community Development

Using an experiential approach, concepts, current issues and applications of citizenship, sustainability, sovereignty, security and policy in the context of food and food production systems will be explored in this course. Students will learn the foundations of growing food and be encouraged to broaden their capacity as gardeners and food citizens regardless of prior experience through hands-on gardening activities, critical discussions, and independent project work with community organizations involved in building sustainable food systems.

## CODE 3613 Group Facilitation

This course explores the concepts, theory and practice of group development and facilitation in community and interpersonal group contexts. It surveys a range of group facilitation concepts and strategies that develop cohesiveness and trust, maximize participatory processes and collective intelligence, welcome and listen to diverse viewpoints, and transform conflict into creative cooperation. Concepts will be applied in community development and sustainability settings with an emphasis on experiential learning. Prerequisites: third year standing in BCD, ESST or permission of Department.

## CODE 3623 International Community Development

Within an inclusive learning environment, participants in this class will discuss and critically reflect on international community development perspectives, issues, and theories. Using case studies, first voice experiences, as well as engaging articles, students will work with a variety of topics including cross-cultural understanding, power and privilege, gender, and outside organizations' role in Asset Based Community Development. Prerequisites: third year standing in BCD or permission of the Department.

## CODE 3963 Special Topics in Community Development

In-depth study of a selected current topic in the field. This course is designed to enable students to take advantage of a particular expertise of visiting or permanent faculty and will be offered from time to time as circumstances dictate.
Prerequisite: permission of the Department.

## CODE 3973 Explorations in Community Development Education

An exploration of professional development opportunities outside the traditional university course structure that are not normally found in professional institutes, workshops and mini-courses. Evidence of credit hour course equivalency, relevance to the student's specific program of study, and suitable academic standards must be provided prior to participation. A written report, with possible additional academic assignments, is required. Prerequisite: permission of the Department.

## CODE 3983 Outward Bound©: Explorations in Adventure and Environmental Advocacy

This course integrates personal, physical and intellectual development through environmental advocacy, wilderness travel, and community engagement. Situated in an area of cultural interest, physical challenge, and environmental concern; this "journey" provides a unique and challenging learning setting utilizing teaching resources from both Acadia University and Outward Bound Canada. Normally offered in the spring and/or summer sessions.

## CODE 4013 Policy, Planning and Decision-Making

An exploration of the conceptual and procedural theory regarding planning and public policy in community development. Emphasis will be placed on organizational, community, and governmental decision-making processes. The laboratory focuses on planning applications. (1.5h lab) Prerequisite: successful completion of all Code core courses in the 1000, 2000, and 3000 levels or permission of the Department.

## CODE 4033 Global Issues and Social Advocacy

This course focuses on global issues and the challenges and opportunities associated with creating an equitable and sustainable future. International examples of social change are explored through the application of community development concepts and tools.
Prerequisite: successful completion of all Code core courses in the 1000, 2000, and 3000 levels or permission of the Department.

## CODE 4059 Community and Professional Engagement

This team-taught course provides opportunities for final year students to apply their accumulated knowledge and expertise in professional community development experiences. Students normally complete a three- week community development project (locally or internationally) and a six-week professional placement or with departmental permission complete a nine-week professional placement that integrates an advanced community development research project. Prerequisites: successful completion of all Code core courses in the 1000, 2000, and 3000 levels or permission of the Department.

## CODE 4523 Sustainable Tourism Planning and Development

Principles and practices of sustainable tourism planning and development will be examined within the context of heritage tourism, ecotourism and adventure tourism. The role of the community, stakeholders and partnerships, and government and industry will be analyzed in terms of sustainable tourism planning, development and policy formulation. When possible, students will work on applied tourism projects. Prerequisite: permission of the instructor.

## CODE 4963 Directed Study in Community Development

This course is a supervised study of current knowledge in a selected topic. A major paper or project is produced in conjunction with a faculty advisor. The study will be carried out in accordance with the procedures of the program. Prerequisite: permission of the instructor.

## CODE 4973 Independent Study in Community Development

A substantial research project chosen in consultation with the faculty advisor to reflect student interest and the application of community development theory. The project seeks to draw an original conclusion based on information derived from research. The study will be carried out in accordance with the procedures of the program. Prerequisite: permission of the instructor.

## CODE 4983 Outward Bound©: Advanced Expedition Management and Leadership

Adopting "Outward Bound" philosophy, this course builds expedition management and leadership by focusing on both an inward and outward journey. The inward journey focuses on people centred skills and engages in theoretical and experiential leadership and expedition management. The outward journey includes wilderness travel, risk management, environmental assessment and ecological stewardship. Available only on Outward Bound Canada's 35-day Instructor Development Program. Prerequisite: third year standing at an accredited Canadian University or equivalent.

## CODE 4996 Honours Thesis

This course requires the student to propose and carry out a research study under the supervision of an approved supervisor and submit a thesis in accordance with the Department Honours Program Guidelines and in a format approved by the Honours Committee of Senate.

## COMPARATIVE RELIGION

## CREL 1206 World Religions

The history, beliefs, practices and contemporary relevance of the Hindu, Buddhist, Confucian, Taoist, Zoroastrian, Judaic, Muslim and Christian faiths. After outlining methods of understanding different ways of being religious the course examines the components of larger streams of tradition and compares and contrasts their respective beliefs and practices.

## CREL 2206 (2213/2223) Intro to Biblical Studies

The origins, early history and documents of Judaism and Christianity. The religious, social and cultural significance of the scriptures will be stressed and the techniques of historical and literary criticism will be introduced.

## CREL 2413 Ecology and Religion

This course reviews the relationship between religion and the environment from two perspectives. It first traces how traditional religions (Eastern, Western, Aboriginal) define things. Second, it provides an overview of contemporary ecological spirituality in Western society, including ecoactivism, ecofeminism, deep ecology, and animal rights.

## CREL 2443 Health, Illness and Religion

An examination of the different ways health and illness are related to religion. Ideas of sickness and techniques of healing will be studied in a variety of traditional and modern contexts. We will explore how differing religious and medical systems sustain a variety of understandings of the human person, culture/society relationships, and cosmological views. Prerequisite: one-year university.

## CREL 2533 "Cults" New Religious Movements

An examination of practices and self-understandings of New Religious Movements (NRMs, i.e. Scientology, Neo-paganism (Wicca), Satanism, Falun Gong, Branch Davidians) in North America. Topics include the social scientific study of NRMs; historical roots and teachings; issues of popularity and interpretation; and special consideration of gender in the emergence and form of NRMs.

## CREL 2553 Goddesses and Women of Power

An examination of goddesses, female religious powers and women manifesting divine power in a variety of cultures: indigenous, eastern and western. Consideration will be paid to the intertwined emergence of feminist scholarship on religion and feminist spirituality. Prerequisite: one-year university.

## CREL 3123 Writing Life: Worldviews and Experience

Students will conduct field-based research documenting life stories and engage in an on-the-ground introduction to interviewing and analysis of worldviews and experience. Students will learn culturally appropriate protocols involved in ethnographic research, including life history and feminist methodologies, approaches to interviewing and participant-observation. These skills and methodologies apply to similar work in other disciplines.

CREL 3693 Fieldwork in Ritual Studies: Researching Ritual on The Ground Examination of theoretical and methodological issues arising in the interdisciplinary and feminist approach to the study of ritual. Special attention is given to the study of lived ritual practice and to ritual as a conceptual lens for cultural analysis. Students conduct fieldwork, learning culturally appropriate methodologies for participant-observation, description and analysis.

## COMPUTER SCIENCE

## COMP 1113 Computer Programming 1

Introduction to the field of computer science and computer programming. Topics include fundamental programming constructs, algorithms, and problem-solving. Lecture and lab. No programming experience required. Prerequisite: NS Grade 12 Academic or Advanced Math (or equivalent) or Pre-calculus or 3h of mathematics. Antirequisite: Credit cannot be obtained for both COMP 1113 and COMP 1893.

## COMP 1123 Computer Programming 2

Topics include object-oriented programming, declarations and types, fundamental techniques in graphics, event-driven programming, subclasses and inheritance in objectoriented programming, recursion, and file processing. Lecture and lab. Prerequisite: COMP 1113 with C- or better.

## COMP 1813 Computer Concepts and Applications

Introduction to computer concepts and hands-on experience with basic applications. Topics include how to create effective web pages, powerful presentations, dynamic spreadsheets, efficient word processing, and simple database applications. No prior computer knowledge assumed.

## COMP 1893 Multimedia-Based Introduction to Programming

An introduction to programming by writing computer programs to manipulate images and other media. No prior computer knowledge assumed. Antirequisite: Credit cannot be obtained for both COMP 1113 and COMP 1893.

## COMP 2103 Computer Programming 3

Topics include fundamental programming concepts, algorithms and problem solving, fundamental data structures, recursion, the imperative programming paradigm, structured design, compiled and scripting languages, program correctness, robustness, and portability, interfacing with operating system. Lecture and lab. Prerequisite: COMP 1123 with a grade of C- or better.

## COMP 2113 Data Structures and Algorithms

Topics include introduction to abstract data specification, implementation and testing, introduction to algorithms and their analysis. Prerequisite: COMP 1123 and either (MATH 1323 or 1333) all with C- or better.

## COMP 2203 Computer Architecture and Organization 1

Topics include digital logic and digital systems, machine level representation of data, assembly level organization and architecture. Lecture and lab. Prerequisite: 6 h of mathematics Cross-listed as APSC 2223

## COMP 2213 Computer Architecture and Organization 2

Topics include memory system organization and architecture, interfaces and communication, functional organization, multiprocessing and alternative architectures, performance enhancements. Prerequisite: COMP 2203 plus 6 additional hours of computer science, all with C- or better.

## COMP 2513 Web-Centric Programming

Theory and hands-on experience with the Internet and Web infrastructure, E-commerce and M-commerce concepts, both client-side and server-side software technologies, database, E-payment, security and authentication, CSS, XML, and mobile data access and Web standards. Prerequisite: COMP 1123 with C- or better.

## COMP 2523 Security

Topics include cryptography, security issues and, network and data level security. Prerequisite: COMP 1123 and MATH 1023 or MATH 1223, and either MATH 1413 or MATH 1313 all with C- or better.

## COMP 2663 Software Engineering 1

Topics include software requirements and specifications, methods and tools for objectoriented analysis and design, introduction to software validation, introduction to design patterns and frameworks, programming with components, using APIs, software tools and environments, software processes (introduction), software evolution (introduction), software project management. Prerequisite: COMP 1123 with C- or better.

## COMP 2853 Handling Data: Concepts and Applications

This course provides hands-on experience in managing research data from when it is collected to the final report. Includes data collection, storage, data manipulation, data analysis, generating charts and graphs, effective methods of presenting information in both reports and presentations. Prerequisite: 3 h COMP or equivalent word processing and spreadsheet experience.

## COMP 2863 How Web Sites Work

Topics include an introduction to Web fundamentals, and programming techniques for Web site development. Prerequisite: 3 h COMP or permission of school.

## COMP 2873 Building Web-Based Applications

Development of dynamic Web applications using database technology. Topics include an introduction to Web development frameworks, and building Web sites which access data stored in a database backend. Prerequisite: COMP 2853 and COMP 2863.

## COMP 2903 Computers and Society

Topics include the technical, economic, legal, political, social, ethical, and professional issues related to the widespread use of computers. Prerequisite: 3 h COMP with $C$ - or better.

## COMP 2923 Special Topics

Prerequisite: permission of school

## COMP 3343 Data Communications and Computer Networks

Topics include theory and applications of data communications systems; language of data, coding for communications, transmission media, error control, channels, modems, communications system design, terminal selection and cost analysis. Prerequisite: COMP 2213 and MATH 2223 or MATH 2233 with C- or better.

## COMP 3403 Analysis of Algorithms

Brief review of computer representation and manipulation of mathematical structures. Introduction to models of computations, basic programming techniques for efficiency (recursion, balancing back-tracking, etc.), complexity theory, estimation and measurement of efficiency of algorithms, and proving algorithms optimal. Prerequisite: COMP 2113, MATH 1023, MATH 1413, (MATH 1323 or MATH 1333), each with C- or better.

## COMP 3413 Automata, Formal Languages, and Computability

Automata theory, formal languages, computability and complexity, including the Chomsky hierarchy for languages, decision problems for languages, theoretical computability, non-computable functions and related problems. Prerequisite: COMP 2113, MATH 1023, and MATH 1413 or 1313, MATH 1323 or 1333, each with C- or better.

## COMP 3503 Data Analytics

Philosophies and technologies surrounding the capture of organizational data, the conversion of data into information, and the dissemination of that information for the generation of human knowledge. Topics include: the knowledge discovery process, data warehousing and data mining. Prerequisite: COMP 2113, MATH (1223 or 2223 or 2233), and MATH 1413 or 1313 each with C- or better.

## COMP 3513 Systems Analysis and Design

Introduction to the tools and techniques of information systems analysis and design and the project management process. The analysis and specification of systems requirements will be covered, as well as the design of system data, input, output and processes. A typical business case study project will constitute a major portion of the course. Prerequisite: COMP 1113, COMP 1893 or COMP 2863 with C- or better, or permission of the school.

## COMP 3553 Computer Graphics

Selected higher-level concepts in computer graphics, such as display devices, display files and data structures for graphics, interactive and dynamic display techniques, threedimensional graphics, shaded and colour graphics. Graphics language standardization, and device-independent software. Prerequisite: COMP 2113, MATH 1023, MATH 1413, (1323 or 1333), each with C- or better.

## COMP 3583 Human Computer Interaction

Examines the human factors associated with information technology and seeks to provide students with knowledge of the variables likely to influence the perceived usability, and hence the acceptability, of any information technology. This course introduces a series of techniques for developing and evaluating usable software, with a focus on both mobile and traditional computing hardware. Prerequisite: COMP 2113.

## COMP 3613 Artificial Intelligence 1

Topics include an introduction to logic and functional programming, and artificial intelligence. Includes first order logic, constraint logic programming, lambda calculus, intelligent agents, search, planning, and knowledge representation and reasoning. Prerequisite: COMP 2113, MATH 1413, (1323 or 1333), each with C- or better.

## COMP 3663 Software Engineering 2

Topics include software evolution, project management, standards and practices of requirements analysis, design, implementation and testing, configuration and change management, quality assurance, resource and cost estimation, risk management, professional and ethical responsibilities, team application of SE methodology to the development of a software product. Prerequisite: COMP 2663 with C- or better.

## COMP 3703 Translators

Basic components and techniques of translators for programming languages; preprocessors, compilers, interpreters, assemblers. Prerequisite: COMP 2113, MATH 1413, (1323 or 1333), each with C- or better.

## COMP 3713 Operating Systems

Major operating systems principles, and the interrelationships between the operating system and the architecture of computer systems. Topics from memory and process management, and concurrent computation in operating systems. Prerequisite: COMP 2103, 2113, and 2213 each with C- or better.

## COMP 3753 Data Base Management Systems

The analysis, design, operation and maintenance of large information systems, especially those using database techniques, on-line processing, and networking. The most common models for database management systems with commercial examples. Prerequisite: COMP 2113, MATH 1413, (1323 or 1333), each with C- or better.

COMP 3773 Advanced Object-Oriented Application Development with C++ Advanced topics in object-oriented programming, analysis, and design using C++. Compile and run time binding, reflective and polymorphic programming, compile and run time type parametrization. Standard template library. Design patterns and frameworks in C++. Prerequisite: COMP 2103, 2113, and 2663, each with C- or better.

## COMP 3933 Special Topics

Prerequisite: permission of school.

## COMP 4223 Advanced Computer Architecture

New generation architectures and technologies, foundations of parallel computation, software for advanced architecture, parallel architectures. Prerequisite: COMP 3703, 3713.

## COMP 4343 Computer Networks and Distributed Systems

Design and implementation of computer networks and related systems, communications protocols and distributed systems. Prerequisite: COMP 3343, 3713, MATH 1023, 1413, (1323 or 1333), each with C- or better.

## COMP 4443 Selected Topics in Computer and Network Security

This course will cover selected topics such as: authentication applications, data integrity and privacy, anonymity, security infrastructures and intrusion prevention, network attacks, and wireless Networks and Security. Prerequisite: COMP 2523 and 4343, each with C- or better. Corequisite or prerequisite of MATH 4333 or permission of the school.

## COMP 4523 Special Topics in Environmental Informatics

This course consists of intensive examination of selected topics in computer science and information technology for environmental science. Prerequisite: permission of the school.

## COMP 4553 Game Development

The game development life cycle, game design and programming, graphics engines and game engines, game tools. Prerequisite: COMP 3553 and 3773, each with $C$ - or better.

## COMP 4583 Mobile and Ubiquitous Computing

This course covers the technologies used in mobile and ubiquitous computing and how to apply this knowledge to real-world applications. This course will provide specific skills needed for designing, developing and deploying mobile applications. Prerequisite: COMP 3343, COMP 2513, COMP 3713.

## COMP 4613 Artificial Intelligence 2

Topics include uncertain knowledge representation and reasoning, machine learning, agent communication, and natural language processing and artificial intelligence for games. Prerequisite: COMP 3613 and (MATH 2223 or 2233) with C- or better.

COMP 4923 Special Topics
Prerequisite: permission of school

## COMP 4983 Project

Experience in the design, development, implementation and documentation of a significant computer software or hardware system; or a thorough literature review and analysis of an aspect of computer science. A final project report and a presentation to the School are required. Prerequisite: 12h computer science at the 3000 or 4000 level, each with C- or better. Credit cannot be obtained for both COMP 4983 and 4996.

COMP 4996 Thesis
Antirequisite: Credit cannot be obtained for both COMP 4983 and 4996.

## CO-OPERATIVE EDUCATION

## COOP 1900 Co-operative Education 1

Students will engage in degree-relevant, hands-on learning for a minimum of 420 hours offering opportunities for application of classroom-based theory, reflection, collaboration with subject matter experts, as well as feedback on performance and a formal report or presentation. Provides in depth exposure to varied professional environments, learning of specialized knowledge/techniques/equipment, and first-hand insight into potential career paths.

## COOP 2900 Co-operative Education 2

Students will engage in degree-relevant, hands-on learning for a minimum of 420 hours offering opportunities for application of classroom-based theory, reflection, collaboration with subject matter experts, as well as feedback on performance and a formal report or presentation. Provides in depth exposure to varied professional environments, learning of specialized knowledge/techniques/equipment, and first-hand insight into potential career paths. Prerequisite: COOP 1900 (Passing grade).

## COOP 3703 Coop Internship (12-Month)

Students will engage in degree-relevant, hands-on learning for 12 consecutive months with one employer offering opportunities for application of classroom-based theory, reflection, collaboration with subject matter experts, as well as feedback on performance and one formal report and one presentation. Provides in depth exposure to varied professional environments, learning of specialized knowledge/techniques/equipment, and first-hand insight into potential career paths.

## COOP 3803 Internship (16-Month)

Students will engage in degree-relevant, hands-on learning for 16 consecutive months with one employer offering opportunities for application of classroom-based theory, reflection, collaboration with subject matter experts, as well as feedback on performance and one formal report and one presentation. Provides in depth exposure to varied professional environments, learning of specialized knowledge/techniques/equipment, and first-hand insight into potential career paths.

## COOP 3903 Co-operative Education 3

Students will engage in degree-relevant, hands-on learning for a minimum of 420 hours offering opportunities for application of classroom-based theory, reflection, collaboration with subject matter experts, as well as feedback on performance and a formal report or presentation. Provides in depth exposure to varied professional environments, learning of specialized knowledge/techniques/equipment, and first-hand insight into potential career paths. Prerequisites: COOP 2900 (Passing grade).

## COOP 4900 Co-operative Education 4

Students will engage in degree-relevant, hands-on learning for a minimum of 420 hours offering opportunities for application of classroom-based theory, reflection, collaboration with subject matter experts, as well as feedback on performance and a formal report or presentation. Provides in depth exposure to varied professional environments, learning of specialized knowledge/techniques/equipment, and first-hand insight into potential career paths. Prerequisite: COOP 3903 (Passing grade).

## ECONOMICS

## ECON 1013 Microeconomic Principles

An introduction to the following questions: How do markets work? When do markets successfully allocate resources? What causes markets to fail and what can be done about it? How do firms make production decisions? What results from firms having market power?

## ECON 1023 An Introduction to the Study of Macroeconomics

The national accounts. The measurement of macroeconomic indicators. The determination of aggregate employment and output in the short-run, the long-run and the very-long-run. The monetary system and monetary policy. The balance of payments accounts and exchange rate determination. Stabilization policies and policies to promote economic growth.

## ECON 2113 Intermediate Microeconomic Theory 1

This course develops a theory of the market economy from the perspective of the consumer. (Its sequel, Intermediate Microeconomic Theory 2, extends the analysis to the theory of production and the perspective of the supplier.) The course culminates in a discussion of general equilibrium in an exchange economy and the first and second fundamental theorems of welfare economics. Prerequisite: ECON 1013/ECON 1023 with a grade of C- or better.

## ECON 2213 Intermediate Macroeconomic Theory 1

Income and employment theory, monetary theory, open economy, economic fluctuations and growth. Prerequisite: ECON 1013/ECON 1023 with a grade of C- or better.

## ECON 2413 Engineering Economics

Topics of theoretical and applied economics of interest and use to engineers and professionals in related fields. Topics include market equilibria, interest rate determination, present and future values, investment criteria, budgeting and replacement analysis, depreciation, taxation, inflation, sensitivity and risk analyses, and multi-staged and multi-attribute decision making. Cross-coded as APSC 2413. Prerequisite: MATH 1023, ECON 1013/ECON 1023 with a grade of C- or better.

## ECON 2613 Empirical Analysis in Economics and Business 1

This course aims to provide an introduction to empirical analysis in Economics and Business making extensive use of Microsoft Excel. Topics include both descriptive and inferential statistics, culminating in hypothesis testing and an introduction to regression analysis. Antirequisite: Credit can be obtained for only one of MATH1213/MATH 1223, MATH 2213/MATH 2223, MATH 2233/MATH 2243, and ECON 2613/ECON 2623. ECON 2613 cannot be offered for credit by Math/Stats majors.

## ECON 2623 Empirical Analysis in Economics and Business 2

The objective of this course is to provide an introduction to econometric theory and illustrate practical implications of regression analysis in Economics and Business. The first half of the course provides an introduction to the classical linear regression model (CLRM). The second part of the course is concerned with identification and treatment of violations to the assumptions of the CLRM. Prerequisite: ECON 2613. Antirequisite: Credit can be obtained for only one of MATH1213/MATH 1223, MATH 2213/MATH 2223, MATH 2233/MATH 2243, and ECON 2613/ECON 2623.

## ECON 2713 Economics of the Natural Environment

An introductory analysis of pollution and the overuse of natural resources. Two ideas are central to the course: (1) A socially optimal level of pollution and/or resource use that is the market level and not zero. (2) The failure of both markets and governments to deliver this level, and the characteristics of institutions that outperform markets and/or governments in isolation. Prerequisite: ECON 1013 with a grade of C- or better.

## ECON 2813 Macro Economic Policy Issues

We investigate two questions: (1) Can and should policy increase economic growth? (2) Can and should policy decrease the variation in economic activity? Throughout, we will consider a variety of policy tools, and how the answer to one of the above questions influences answers to the other. Prerequisite: ECON 1013/ECON 1023 with a grade of Cor better.

## ECON 2823 Micro Economic Policy Issues

Canada's economy, like that of any other G8 country, is characterized by considerable government intervention. Using standard tools from microeconomic theory, this course examines the wisdom, and folly, of government policy. Topics include price and quantity controls, competition policy, public good provision, taxation and redistribution, and environmental protection. Prerequisite: ECON 1013/ECON 1023 with a grade of C- or better.

## ECON 3113 Intermediate Micro Economic Theory 2

The theory of production, profit maximization, cost minimization, cost curves, firm supply, industry supply, monopoly, monopoly behavior, factor markets, oligopoly, general equilibrium, Pareto optimality, the first and second fundamental theorems of welfare economics. Prerequisite: ECON 2113 and MATH 1613 or MATH 1013 with a C- or better.

## ECON 3123 Intermediate Macroeconomic Theory 2

A macroeconomic analysis of the national economic operation including a consideration of macroeconomic dynamics, inflation business cycles, the control of the national economy and its related public policies. Prerequisite: ECON 2213, ECON 2113, and MATH 1613 or MATH 1013 with C- or better.

## ECON 3133 Economics of Financial Markets

The economic characteristics, function and performance of financial markets. Topics include the efficiency of financial markets, futures and options markets, pricing of financial assets, definition and measurement of risk, portfolio analysis, interest rate and yield curve analysis. Prerequisite: ECON 1013/ECON 1023 with a $C$ - or better.

## ECON 3143 Financial Institutions and Policy

Deals with economic characteristics, functions and performance of financial institutions nationally and internationally. Topics include commercial and central banking in Canada, foreign banking systems and international monetary policy and exchange rate regimes. Prerequisite: ECON 1013/ECON 1023 with a C- or better.

## ECON 3203 Economic History of Canada

A consideration of significant economic events and circumstances since before Confederation that have shaped the Canadian economy. Prerequisite: ECON 1013/ECON 1023 with a $C$ - or better.

## ECON 3313 Labour Economics

This course aims to make an introduction to modern labour economics. The main focus will be an analysis of the key aspects of labour supply and demand behavior, with an emphasis on major policy questions such as the impact of public policy on work incentives and retirement. The acquired tools are applied to topics such as wage determination, human capital, returns to education and immigration. Prerequisite: ECON 1013/ECON 1023 with a $C$ - or better.

## ECON 3323 Issues in Canadian Labour Markets

This course deals with selected contemporary issues in Canadian labour markets. The first part of the course begins with the standard economics of labour supply and demand. The course also looks at wage structures, the causes and the consequences of unemployment, the presence and effects of labour unions, the increasing participation of women, and the debate over discrimination in labour markets. Prerequisite: ECON 1013/1023 with a C- or better.

## ECON 3413 Government Taxation and Expenditure in Canada

A study of public finance or the various types of taxes and government expenditures and their impacts on the Canadian economy, such as the effects of prices, production, and the distribution of income. Prerequisite: ECON 1013/1023 with a C- or better.

## ECON 3423 Federal-Provincial Fiscal Relations

The economics of tax sharing, joint financing of established health and welfare programs, and other fiscal transfers between the various levels of government in Canada.
Prerequisite: ECON 1013/ECON 1023 with a C- or better.

## ECON 3433 Cost-Benefit Analysis

The techniques and application of cost-benefit analysis to public policy and project evaluation. Topics include the welfare foundations of cost-benefit analysis, investment decision rules, the choice of a social discount rate, risk and uncertainty, shadow pricing of inputs and outputs, public sector pricing and assessment of the value of intangibles such as time, noise and life. Prerequisite: ECON 1013/ECON 1023 with a $C$ - or better.

ECON 3513 Economics of Transportation
The role of transport in the Canadian context including demand and cost structures, peak load pricing, the theory of congestion, investment evaluation and public policy in relation to transport. Prerequisite: ECON 1013/ECON 1023 with a C- or better.

## ECON 3523 Industrial Organization 1

An introduction to industrial organization and Canadian industrial policy. Topics such as the determinants and measurement of industry structure lead to a review and development of the theories of monopoly and oligopoly. Canadian public policy (e.g. competition policy) is examined in this context. Prerequisite: ECON 1013/ECON 1023 with a $C$ - or better.

## ECON 3613 Mathematical Economics 1

This course is concerned with the application of mathematical tools to economic theory. Incoming students are expected to be familiar with univariate calculus. Tools such as multivariate calculus, matrix algebra and linear programming are brought to bear on macroeconomic models and a variety of unconstrained and constrained microeconomic optimization problems. Prerequisite: ECON 1013/ECON 1023, MATH 1613 or MATH 1013 all with a C- or better.

## ECON 3623 Mathematical Economics 2

This course is a continuation of ECON 3613. Additional mathematical techniques are applied to microeconomic theory in greater depth, including the treatment of time and uncertainty. Partial equilibrium analysis, and dynamic macroeconomic analysis is treated. Prerequisite: ECON 3613.

## ECON 3633 Financial Econometrics

The objective of this course is to provide an introduction to the econometrics used in empirical finance. Topics will cover modern statistical and econometric techniques necessary for both professional and academic quantitative research in finance. Particular emphasis will be placed on measuring risk of holding and trading financial assets, models for risk management, estimation and inference using computer-based applications.
Prerequisite: ECON 2623 and ECON 3133.

## ECON 3713 Environmental Economics

Building on ECON 2713, this course further investigates the valuation of non-market goods, the normative content of discount rates, and recasts the analysis of externalities in a general equilibrium framework. Prerequisite: ECON 2713.

## ECON 3733 Economics of Recreation and Sport

This course examines the role of economics in the consumption and provision of recreation and sport in today's society. Topics include demand estimation and forecasting, assessing the benefits and costs of recreation and sport events/facilities, pricing issues, and the role of government in the recreation and sport industries. Prerequisite: ECON 1013 with a $C$ - or better.

## ECON 3743 Economics of Tourism

A theoretical and empirical analysis of the tourism industry as it applies to consumers and providers at the community/regional/national and international levels. Topics include cost structures in the tourism industries and related pricing issues, demand analysis and market segmentation, economic and social impacts of tourism, the role of multinationals and government in the tourism industry. Prerequisite: ECON 1013/ECON 1023 with a Cor better.

## ECON 3833 Economics and Entrepreneurship

This course explores entrepreneurship from the perspective of modern economic analysis. Economic profit and the return to entrepreneurship. The economics of risk and uncertainty. The economics of asymmetric information and information technology. Pricing and investment decisions. Public policy and entrepreneurship. Entrepreneurship and the knowledge economy. Prerequisite: permission of the Instructor.

## ECON 3883 Special Topics in Economics

Special topics in economics to allow students to take advantage of their own particular interests and the interests of current and visiting faculty. Prerequisite: ECON 1013/ECON 1023 with a $C$ - or better.

## ECON 3913 Managerial Economics

An introduction to the economics of organizations and management, and an examination of the organizational and personnel problems firms face. Throughout consider the policy environment firms operate in, and how firms respond to changes in this environment. Topics include recruitment, remuneration, team production, and internal organization. While our perspective will be game-theoretic, it will emphasize intuition over formal results. Prerequisite: ECON 1013, ECON 2623 (or equivalent) with C- or better.

## ECON 4013 History of Economic Thought

The course explores the ideas of the principal writers of the classical school of economic thought, particularly Smith, Malthus, Ricardo, Mill and Marx. Attention will also be given to the surrounding intellectual, political, and economic context within which these ideas were developed and the reasons why classical thought evolved into modern, neoclassical economics. Prerequisite: ECON 1013/ECON 1023 with a C- or better.

## ECON 4033 Advanced Microeconomic Theory

Selected topics in consumer and producer theory at an advanced mathematical level. Topics will include utility maximization, the indirect utility function, the expenditure function, consumer choice and the Slutsky equation, demand, consumers' surplus, technology, profit maximization, the profit function, Hotelling's lemma, cost minimization, the cost function and Shephard's lemma, general equilibrium and welfare. Prerequisite: ECON 3113, and one of ECON 3623 or MATH 1023.

## ECON 4043 Advanced Macroeconomic Theory

Topics in macro theory, policy and empirical research depending on interests of the instructor and students. Examples of topics are consumption, investment, the Keynesianneoclassical synthesis and the crowding out controversy, inflation, trade-offs, expectations and incomes policies, policy problems of open economics. Prerequisite: ECON 3123, and one of ECON 3623, MATH 1023.

## ECON 4113 International Trade Theory

The course explores the theory and practice of international trade theory from a variety of perspectives. This course provides an introduction to the basis, consequences and policies of international trade and to the multilateral trading system and institutions. Policy discussions will include contemporary developments in international trade including the North American Trade Agreement, the World Trade Organization and Non-Government Organizations. Prerequisite: ECON 1013/ECON 1023 with a C- or better.

## ECON 4123 International Finance and Institutions

International monetary economics including foreign exchange markets, adjustment mechanisms, speculations, capital flows and transfer problems, international liquidity, balance of payments and its interrelation with domestic policy, the I.M.F. and World Bank and international finance institutions. Prerequisite: ECON 1013/ECON 1023 with a C- or better.

## ECON 4213 Development Economics

Theories of economic development with specific reference to certain areas and conditions: the analytics of economic growth; barriers, balanced versus unbalanced strategies, technology. Prerequisite: ECON 1013/ECON 1023 with a C- or better.

## ECON 4523 Industrial Organization 2

Advanced topics in industrial organization are examined. These include pricing strategies, strategic behaviour, game theory, advertising, informational asymmetries and disclosure laws. Prerequisite: ECON 3113 or ECON 3523.

## ECON 4613 Econometrics 1

This course aims to provide an understanding of basic econometric techniques with emphasis on applications in empirical research. The first half of the course covers a comprehensive review of the classical regression model and the underlying assumptions. The second half of the course presents models that are frequently used in empirical research such as qualitative response regression models, instrumental variables and timeseries analysis. Prerequisite: ECON 2613 and ECON 2623.

## ECON 4623 Econometrics 2

Extends the methods of Econometrics 1. Topics covered include binary choice models, systems of equations, and dynamic econometric models. Prerequisite: ECON 4613.

## ECON 4813 Natural Resource Economics

Building on ECON 2713, this course further investigates the use of renewable and nonrenewable resources. We will consider optima harvest "rules", from Hotelling to Hartwick, and develop dynamic harvesting models to understand why such rules are optimal.
Prerequisite: ECON 2713

## ECON 4903 Honours Seminar

This objective of this course is to provide a foundation for an honours thesis. The course will adopt a seminar format with scheduled lectures. Topics covered will include but not limited to the organization of honours thesis, identification and discussion of the research question, how to conduct a literature review, making effective use of the library resources, presentation of results, and applications to graduate schools. Prerequisite: ECON 1013/ECON 1023 with a C- or better.

## ECON 4913 Game Theory

Games are played whenever people interact, wherever there are strategies to adopt and outcomes or prizes to win. This means games are played everywhere, from economics to evolutionary biology, from prison escapes to online poker, and from romantic liaisons to military standoffs. We develop the Nash equilibrium and several refinements.
Prerequisite: ECON 3113 with C- or better.

## ECON 4996 Honours Thesis

## EDUCATION

## EDUC 1000 English for Academic Purposes

This course is designed for international students for whom English is a second language. It is an intensive course in English designed to prepare students for the advanced academic demands that will be made of them at Acadia. The course is centered on a series of introductory lectures on topics ranging across the university curriculum.

## EDUC 3173 Teaching Strategies for Professionals

As an introduction to teaching methodologies for professionals in any field, this course prepares participants for teaching responsibilities they might encounter in modern
employment environments. Emphasis will be placed upon presentation skills, workshop and micro-lesson teaching, teaching with technology, and the instruction of adults (not for credit towards the Bachelor of Education program).

## EDUC 3203 Introduction to Education

An introduction to the purpose, structure and operation of public schools in Canada with a particular focus on the role of the professional educator in the global community. (Not for credit towards the Bachelor of Education program).

## EDUC 4003 Field Experience 1

The first designated block of supervised student teaching that involves observation, reflection and team teaching under the supervision of a school-based associate teacher and a School of Education supervisor. Students begin to build a personal portfolio that reflects their beginning growth in professional practice.

## EDUC 40A3 Field Experience 2

The second block of supervised student teaching. Students continue to observe, reflect and develop professional practice. Under the supervision of a school-based associate teacher and a School of Education supervisor, students take on more responsibility in the classroom in terms of practice teaching. Students continue to develop a personal portfolio that reflects their beginning growth in professional practice.

## EDUC 40B3 Curriculum Issues in Elementary Mathematics Education

This course builds on EDUC 4173, focusing especially on contemporary principles and standards for mathematics teaching, planning, and curricula. Prerequisite: EDUC 4173 with B- or better, or permission of the instructor.

## EDUC 40C3 Teaching Mathematics in Middle School

This course builds on EDUC 4173 and EDUC 4183, focusing especially on mathematics teaching in middle schools. Problem solving, manipulatives, reasoning, and connections with other subject areas will be emphasized. Prerequisite: EDUC 4173 or EDUC 4183 with $B$ - or better, or permission of the instructor.

## EDUC 40E3 Human Geography in the Secondary School Classroom

This course focuses on the teaching of human geography. Topics include population, cultural patterns and processes; political organization of space; agricultural and rural land use; industrialization and economic development; cities and urban land use. Prerequisite: EDUC 4113 or EDUC 4243.

## EDUC 4053 Contemporary Issues in Psychology and Schooling

This course focuses on a range of contemporary topics, including: psychological models underlying curriculum and teaching, learning and self-esteem, gender identity, cyberspace and virtual identity, violence and bullying, and classroom management.

## EDUC 4103 Strategies in Teaching a Second Language

The major focus will be teaching French as a second language. Course topics will be investigated in terms of theoretical foundations and classroom application. This course is normally taught in French.

## EDUC 4113 Teaching Social Studies in Secondary School

Basic issues in curriculum and instruction as they pertain to the teaching of social studies in the secondary school.

## EDUC 4133 Elementary Language Arts 1

This course is about how and why children learn to listen, speak, read, write, view and represent, and the conditions which promote the development of these interrelated
dimensions. Emphasis is on holistically-based principles and practices of teaching which provide the opportunity for children to maintain and develop control over their own language learning, while sharing their experiences.

## EDUC 4143 Teaching Science in the Secondary School

This course is designed as an introduction to science education at the secondary level of the public school system. The course will address supporting theory, current research and lesson planning surrounding constructivist modes of instruction. With this as a philosophical template, individual components of a science lesson will be addressed.

## EDUC 4153 Teaching Science in the Elementary School

This course is designed as an introduction to science education at the elementary level of the public school system. The course will address supporting theory, current research and lesson planning surrounding constructivist modes of instruction. With this as a philosophical template, individual components of a science lesson will be addressed.

## EDUC 4163 Literacy Learning for Students at Risk

Development of a theoretical framework related to the teaching of language arts for students at risk. In addition, it will explore the implications of theory for practice.
Assessment, planning and implementation of language arts programs for students at risk will be critically analyzed.

## EDUC 4173 Teaching Mathematics in Elementary School

Instruction in modern methods of teaching mathematics. The importance of problem solving rather than the drilling of facts is stressed.

## EDUC 4183 Teaching Mathematics in Secondary School

Aims, content and methods of teaching mathematics at the secondary school level. Professional standards and current curricula will be the main focus.

## EDUC 4193 Curriculum and Instruction for Emerging Adolescents

A curriculum and instruction focus to the education of emerging adolescents in the eleven to fourteen age range. Guidelines for the development of appropriate curricula will be considered along with instructional procedures appropriate in middle schools/ junior high schools.

## EDUC 41A3 Energy, Power and Transportation Technology

This course will provide an introduction to the philosophical and practical dimensions involved with teaching energy, power and transportation technology in Atlantic Canada schools. Topics will include learning theories in technology education, creativity and ingenuity in design and problem solving, introductory electronics, and renewable energy technologies. In addition, this course will explore how advances in energy, power and transportation technologies connect to broader pedagogical dimensions of education for sustainability, community outreach and the development of a critical technological literacy.

## EDUC 41B3 Communications Technology

This is a project-oriented content course where students are exposed to a range of communications technologies that are used and taught in the Nova Scotia public school program.

## EDUC 41C3 Production Technology

This is a project-oriented content course where students are exposed to a range of production skills and technological processes. The course content is tailored to match those topics typically taught in the Nova Scotia public school program.

## EDUC 41D3 Teaching Biotechnology

This course will allow students to work closely with the biotechnology curriculum that is currently emerging in the Nova Scotia public school program.

## EDUC 41E3 Science, Technology and Society

This course is intended to expose students to: 1) the relationship between science and technology, 2) curriculum issues within science and technology, and 3) the social impact and ethics of science and technology.

## EDUC 41F3 Foundations and Contexts of Schooling

This course integrates contemporary educational theory into a critical analysis of teaching practice. Course material is located in the scholarly traditions of the philosophy, sociology, and history of education with a particular emphasis on the way that theory and practice are inseparable. Current educational problems are considered in the context of community, sustainability, globalization and exemplary educational practice.

## EDUC 41J3 Videography in Classroom and Community

This course offers education students instruction in documentary film-making. The documentary as a genre is a valuable tool for expanding the literacy of students in contemporary schools. The course consists of a series of workshops in technical skills, narrative structure of the documentary genre, analysis of educational documentaries, digital editing, and issues in documentary making.

## EDUC 42A3 Media and the Environment

This course will examine the role traditional and emergent media play in constructing and transforming our cultural, political, scientific and personal perspectives and understanding of our environment. Drawing on contemporary critical themes of media theory and practice, the course will examine how media frames and discourses are created to enable particular cultural forms of political economy and power. Prerequisite:
ESST1023, ESST 2003; or by permission of the instructor.

## EDUC 42B3 Sustainable Technologies

This course will examine the role of technology in the context of sustainability. It will critically explore from social, political and historical perspectives, how technological development has contributed both positively and negatively to the environmental crisis. Emphasis will be placed on how innovation with information, solar, wind, tidal and biomass technologies provides a path toward a more sustainable future. Prerequisite: ESST 1023, ESST 2003; or by permission of the instructor.

## EDUC 42D3 Connecting with the Classroom: Principles and Practices (Secondary)

The course aims to assist the secondary pre-practicum student in making the transition from student to professional. The four cornerstones of the course assist secondary students to prepare for teaching by exploring curriculum frameworks, effective classroom community/classroom management strategies, exemplary classroom practice and the importance of relationships (self, peer, teacher, student) in teaching.

## EDUC 42E3 Connecting with the Classroom: Principles and Practices (Elementary)

The course aims to assist the elementary pre-practicum student in making the transition from student to professional. The four cornerstones of the course assist students to prepare for teaching by exploring curriculum frameworks, effective classroom community/classroom management strategies, exemplary classroom practice and the importance of relationships (self, peer, teacher, student) in teaching.

## EDUC 42FA Topics in Education

This course explores a specific topic related to education, the particular topic to be determined according to current concerns in the field of education as well as student needs and interests. The latter will be established through consultation with faculty.

## EDUC 42F3 Topics in Education

This course explores a specific topic related to education, the particular topic to be determined according to current concerns in the field of education as well as student needs and interests. The latter will be established through consultation with faculty.

## EDUC 42G3 Teaching and Learning for Activism

This interdisciplinary course, bridging the arts, social studies, science, environmental studies, language arts, and math, will explore from multiple perspectives the teaching of sociocultural, environmental and scientific issues. A variety of pedagogical approaches will be employed in order to help students achieve critical consciousness and co-create new forms of knowledge to become better informed and engaged teachers and citizens in an interconnected world.

## EDUC 42H3 Drama and Performative Inquiry

Located within Arts scholarship, this course embraces curriculum theory and practice as applied and interwoven. Course emphasis includes: theatre competencies, drama as a vehicle for understanding cultural and global contexts and literacies through character, role, plot and narratives across time and curricular areas, with a dedication to equitable learning spaces.

## EDUC 42J3 Philosophical and Historical Foundations of Education

How has education been understood historically and how do these established conceptions of what counts as education resonate today? Drawing on philosophical and historical analysis, this course explores the ideas and practices that have framed and motivated educators, with a particular emphasis on educational controversies, emerging critical conceptions of knowledge and key debates about the purposes of schooling.

## EDUC 42K3 Indigenous Education and Culturally Responsive Pedagogies

This course will provide historical and contemporary overviews of Indigenous education in Canada and create meaningful opportunities for learning about Indigenous ways of knowing and culturally responsive pedagogies.

## EDUC 42L3 Sexual Orientation and Gender Diversity in Schools

This course offers opportunities, through conversing, reading, writing, and presenting, to increase students' understandings of sexual orientation and gender diversity in schools. Specific approaches for inclusive pedagogical practices will be addressed, with opportunities to read and discuss literature for children and youth. Focus will be on the Canadian cultural, historical and legal contexts.

## EDUC 4203 Literacy Across the Curriculum

This course will examine literacy across the curriculum by exploring the mutual supporting roles of reading and viewing, speaking and listening, and writing and representing as students learn in different subject areas. Students in this course will be encouraged to develop a critical reflective approach regarding the notion of literacy and text.

## EDUC 4213 Learning Difficulties: Assessment and Instruction

Students will become familiar with the literature, theories and intervention models in the field of learning and behavior problems. A review of the various instructional techniques utilized in remediation of learning problems, as well as ways to adapt instruction to meet the specific needs of the child will be discussed in detail. Prerequisite: EDUC 4433.

This course is a continuation of EDUC 4133. Prerequisite: EDUC 4133, or its equivalent.

## EDUC 4243 Teaching Elementary Social Studies

The principles and methods of teaching social studies at the elementary school level, with emphasis on the subject matter of the Nova Scotia history and geography curriculum.

## EDUC 4263 Curriculum and Instruction for Diverse Learners

This course engages with current instructional practices, policies and curriculum related to inclusive schooling. Particular emphasis is given to the development of teacher competencies that support diverse learners.

## EDUC 4303 Creative Arts: Elementary

An introduction to the inclusion of creative arts at the elementary school level. Emphasis will include textual, visual and performative arts.

## EDUC 4313 Physical Activity and Healthy Living Education

This course incorporates theoretical and practical applications of comprehensive physical and health education at the elementary/secondary level within an inclusive school setting. Via instruction and activity in a variety of settings (gymnasium, outdoors, regular classroom) the course focuses on the development of active and healthy lifestyles. Attention will be given to the incorporation of physical activities in a typical classroom.

## EDUC 4333 Equity and Inclusive Schooling

This course examines the foundations of social difference, social justice and equity and their relationship to inclusive education.

## EDUC 4353 Teaching English in Secondary School

The teaching and evaluation of written and oral composition, grammar, listening, usage, semantics, poetry, short stories, novels, essays, drama and related topics.

## EDUC 4433 Assessment

This course introduces students to current perspectives and practices in educational assessment. While various purposes for assessment are taken up, there is an emphasis on the central purpose of assessment as a support to student achievement and as an important pedagogical informant for teachers.

## EDUC 4453 Advanced Curriculum and Instruction in Elementary Science Education

This course will examine strategies for delivering specific units in the elementary science curriculum. An emphasis will be placed on developing units that integrate other subject matter including language arts, social studies, and mathematics.

## EDUC 4503 Digital Literacy and Curriculum

This course explores critical digital literacies for the empowerment of sound teaching and learning practices within diverse classroom contexts. Topics include, mobile computing, social media, web-based resources, curriculum integration, instructional and assistive technologies.

## EDUC 4513 Digital Multimedia and Education

This course will use a project-based approach to investigate ways that electronic multimedia can be used in education. The course will expose students to several current multimedia development tools and provide them with the opportunity to use them as they create media that is to be used in educational practice. Prerequisite or corequisite: EDUC 4503 or equivalent.

## EDUC 4553 Creative Arts: Secondary

An introduction to the inclusion of creative arts at the secondary school level. Emphasis will include textual, visual and performative arts.

## EDUC 4563 Educational Explorations

This course provides an opportunity for the exploration of a variety of educational issues through participating in formats such as institutes, workshops, and mini-courses. Evidence of 3 credit hours course equivalency, program relevance, and appropriate academic standards are to be submitted for prior approval to the Director. Evaluation is on a Pass/Fail basis. Available only to education students.

## EDUC 4573 Teaching Strategies for Technology: Energy, Power and Transportation

This course is a lab-based introduction to a variety of teaching methodologies applicable to the Energy, Power and Transportation strand of technology education in Atlantic Canada schools. Emphasis will be placed upon the development of technological competence, practical dimensions of teaching technological problem solving, the design of appropriate learning activities and the planning and maintenance of a safe and stimulating learning environment for all students.

## EDUC 4583 Teaching Strategies for Technology: Production

This course will address teaching methodologies for production technology. Themes of study will include materials science, processing materials, manufacturing, prototyping, life cycle analysis (LCA) and design for the environment (DfE). A critical component of this course will be the impact of production technology on society and the environment.

## EDUC 4593 Teaching Strategies for Technology: Communication

This course will address teaching methodologies for communications technology. Themes of study will include communication systems, graphic and design communications and electronic communications. A critical component of this course will be the impact of communications technology on society and the environment.

## EDUC 4603 Global Education

The course focuses on the integration of global perspectives in the public school curriculum. Topics include population, culture and identity, human rights, poverty and wealth, technology, the environment, and interdependence.

## EDUC 4613 Curriculum Issues in Social Studies Education

This course builds on the philosophical foundations of social studies education developed in EDUC 4113. It offers an opportunity for students to examine carefully the specific curricula which they will encounter as teachers in the secondary public school setting. Prerequisite: EDUC 4113 with B- or better.

## EDUC 4633 Human Sexuality and Gender in Schooling

This course focuses on human sexual development and identity with an emphasis on adolescent and preadolescent sexuality. The course is organized around five units: (1) sexuality as a discourse of desire; (2) sexuality as a discourse of respect for self and others; (3) sexuality as a discourse of diverse ways of being; (4) sexuality as a discourse of love; and (5) sexuality as a discourse on sexual representations in popular culture. Attention will be given to social constructions of gender, gendered relations, and masculinity and femininity, and the ways these are manifest in curriculum and school settings.

## EDUC 4643 Curriculum Issues in Science Education

This course builds on the philosophical foundations of science education developed in EDUC 4143. It offers an opportunity for students to examine carefully the specific
curricula which they will engage as teachers in the secondary public school setting. Prerequisite: EDUC 4143 with B- or better.

## EDUC 4653 Music Education for the Elementary School

This course will introduce a theoretical framework related to how children develop musically in elementary school. The practical implications of this theoretical model, as will be explored and related to the music curriculum of Nova Scotia.

## EDUC 4663 Music Education for the Secondary School

This course focuses on the principles and practice of music education in junior and senior high school programs. Both traditional and contemporary theoretical frameworks and their practical applications will be introduced and examined critically.

## EDUC 4673 Teaching English as a Second Language

This course introduces students to some of the major current teaching methods in English as a Second or Foreign Language. It is designed to help prepare teachers for teaching English to ESL speakers either in Canada or abroad. Students will also be required to complete a short ESL practicum.

## EDUC 4683 Linguistics for Teachers

This course introduces students to the study of linguistics in its relevance to the teaching of English as a second language. Students will be introduced to the fundamentals of phonology, morphology, syntax, pedagogical grammar and sociolinguistics.

## EDUC 4703 Advanced Curriculum and Instruction in Physical Education

This course will investigate the many facets of Junior, Middle and High School Physical Education programs. It provides the opportunity to explore the avenues of highly effective teaching strategies and organizational functions that focus on student participation in an inclusive setting. Prerequisite: EDUC 4313 or KINE 3143 or equivalent.

## EDUC 4713 Cultural Aspects of Teaching and Learning English as a Second

 LanguageDesigned for students preparing to teach English as a Second Language. Addresses key questions about cross-cultural experiences and interactions as they relate both to ESL teachers and learners. Topics include the psychology of culture shock, social-psychological aspects of immigration and emigration, and practical matters relating to cross-cultural encounters in and out of the classroom.

## EDUC 4753 Curriculum Issues in Secondary Language Arts

This course will build on the foundations of language arts in secondary schools developed in EDUC 4353. It will examine the implications of current language and learning theories, provincial language arts curricula, and principles of language arts assessment for secondary classroom practice. Prerequisite: EDUC 4353 with B- or better.

## EDUC 4763 Creative Integration of Curriculum in Elementary School

This elective course surveys a range of approaches through which prescribed outcomes in Elementary Language Arts, Mathematics, Science and Social Studies curriculum can be integrated in classroom practice. While theories of curriculum integration form the foundation for the course, the emphasis is on the notion of creativity as a means to situate learning in meaningful contexts. This course is offered at both the undergraduate and graduate levels.

## EDUC 4773 Environmental Education in the Classroom

This elective course provides teachers with background in the theory and current practice of Environmental Education (EE) and Education for Sustainability (EfS). Students will explore the philosophical, political, scientific, technological, economic, cultural, social justice and psychological dimensions surrounding the concept of sustainability as these relate to education for the future. Interdisciplinarity and 'sustainability citizenship' issues feature prominently.

## EDUC 4783 Curriculum Issues in Secondary Mathematics Education

This course builds on the philosophical foundations of mathematics education developed in EDUC 4183 . It offers an opportunity for students to examine carefully the specific curricula they will engage as teachers in the secondary public school setting. Prerequisite: EDUC 4183 with B- or better.

## EDUC 4793 Curriculum Issues in French as Second Language (FSL)

This course builds on the philosophical foundations of French as second language education developed in EDUC 4103. It offers an opportunity for students to examine carefully the specific curricula they will encounter as teachers in the secondary public school setting. Prerequisite: FRAN 4403 or EDUC 4103 with minimum B- grade.

## EDUC 4803 Curriculum Studies Project

This course is designed to allow students to develop a curricular project based on current research and theory in curriculum and instruction. The project can involve the development of a combination of print, audio-visual, and computer applications within a conceptually-based thematic unit. Details of the project are to be arranged with the instructor.

## EDUC 4863 Acquisition of Language

This course is foundational. The focus is on how language is acquired. There will be a sociological and a psychological analysis of language acquisition. Semantics, syntax, phonology and pragmatics will be explored.

## EDUC 4893 Directed Readings in Education

Designed to broaden the student's understanding of the field and to satisfy special interests. Students are expected to present a definite plan of study. Prerequisite: EDUC 4923.

## EDUC 4923 Field Experience 3

The third block of supervised student teaching. Working with a school-based associate teacher and a School of Education supervisor, students take on more responsibility in the classroom with increased independent practice in planning, classroom instruction and assessment. Students continue to develop a personal portfolio that reflects their beginning growth in professional practice.

## EDUC 4933 Field Experience 4

The final block of supervised student teaching. Working with a school-based associate teacher and a School of Education supervisor, students are expected to take on full responsibility in the classroom with independent practice in planning, classroom instruction and assessment. Students complete their professional growth portfolio and present it as a culmination of the four field experiences.

## EDUC 4943 Practicum and Case Study in Teaching English as a Second Language

In this course, which is a requirement for the proposed Certificate in Teaching English as a Second Language, students will complete a thirty-hour teaching practicum with one or more students for whom English is a second language. They will also be required to
develop and present a detailed case-study analysis of the learning experiences of one ESL student.

## ENGLISH

## ENGL 1213 Composition 1

In this course, students will read a variety of essays and articles to help them learn to write a unified and coherent academic essay. Emphasis is on formulating a clear thesis, demonstrating an awareness of purpose and audience, and developing a personal writing voice in expository essays. Students cannot proceed to a major in English if they have taken only English 1213/ENGL 1223. ENGL 1213 is not a prerequisite for English courses at the 2000 and 3000 levels.

## ENGL 1223 Composition 2

In this course, students build on the basic elements of writing covered in ENGL 1213, but the emphasis is on argumentation. Students in this term will read at least one literary text in addition to essays, and they will learn the strategies of persuasive, effective writing, including those that pertain to the critical, literary essay. Please note that ENGL 1223 is not a prerequisite for English courses at the 2000 and 3000 levels. Prerequisite: ENGL 1213.

## ENGL 1313 Composition for Second Language Students 1

This course is designed for students who do not speak English as a first language. The course will focus primarily on the development of writing skills. Special attention will be given to fundamentals of grammar, vocabulary building, sentence structure, analysis of texts, and the organization of written argument.

## ENGL 1323 Composition for Second Language Students 2

This course is designed for students who do not speak English as a first language. The course will focus primarily on the development of writing skills. Special attention will be given to fundamentals of grammar, vocabulary building, sentence structure, analysis of texts and the organization of written argument, and an introduction to research and documentation techniques. Prerequisite: ENGL 1313.

## ENGL 1406 (1413/1423) Writing and Reading Critically

This course introduces students to novels, plays, and poems from the twentieth century and earlier. This course will develop creative and analytical skills and will provide students with strategies for writing clearly and persuasively.

## ENGL 2003 Creative Writing Workshop

An exploration of literary expression in a variety of genres. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 2006 Strategies for Reading Literature

This course will bring English majors together in their second year to give them a common experience in exploring and discussing various critical strategies for reading literature. Amongst the theoretical approaches that may be introduced are feminism, historiography, psychoanalysis, and postcolonialism. The course is required of all English majors.
Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 2013 Exploring Creative Writing: An Introduction

An introduction to the fundamentals of creative writing including technique and process through writing, reading, lecture, discussion, and workshop participation. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 2153 Theory and Practice of Editing

This is a hands-on introduction to editorial theory and practice which offers a behind-thescenes look at the evolution and dissemination of scholarly and creative texts, and teaches students practical skills associated with the editorial process, including electronic editing. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 2163 Medieval Literature 1

An exploration of the medieval origins and development of the Legend of King Arthur. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 2173 Medieval Literature 2

A study of Geoffrey Chaucer's Canterbury Tales. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 2273 Sixteenth Century Literature

Selected poetry and prose of the sixteenth century, with emphasis on the works of Sidney, Spenser, and the poetry of Shakespeare. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 2283 Seventeenth Century Studies

A study of seventeenth century literature emphasizing poetry and prose by major authors (including Milton). Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of Cor better.

## ENGL 2286 (2183/2193) Shakespeare

This course will involve the intensive study of selected plays by Shakespeare. Its main goal is to help students develop both a critical and a theatrical eye. Careful attention will be paid to the complexity of Shakespeare's language, as well as to the plays' roles as cultural artefacts both today and in the past. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of $C$ - or better.

## ENGL 2313 Advanced English Composition for International Students

This course is offered to international students in their upper years to refresh the principles of academic writing. It will allow students to refine their abilities in writing and critical thinking by reviewing writing skills and extending these to include more analysis through advanced writing methods. Prerequisite: ENGL 1323. Restricted to students whose first language is not English.

## ENGL 2383 Restoration and Early Eighteenth Century

This course will introduce students to British literature and culture of the period 1660 to 1730. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 2386 The Romantics

This course focuses on the diverse literature of the British Romantic period (1785-1830), a period of social, political and artistic change and contradiction. Artists and writers combine nostalgia, self-aware immediacy and hopeful idealism into works that favour imagination, emotion and vision. Featured authors include William Blake, William Wordsworth, Mary Wollstonecraft, Lord Byron, John Keats, Mary Shelley and Jane Austen. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 2393 Later Eighteenth-Century Literature

This course will introduce students to British literature and culture of the period 1730 to 1800. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 2476 Victorian Studies

In this course students read British fiction, poetry, and drama from 1837-1901 within cultural, historical, and political contexts. The aim of this course is to introduce students to canonical and non-canonical works, as well as to convey an understanding of the nineteenth-century issues with which writers were generally preoccupied. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 2563 Canadian Literature 1

This course will provide an overview of significant developments in the history of Canadian literature in English up to World War Two, stressing the influence of Canada's colonial heritage on the shaping of the country's literature. The course will address the historical contexts of the works under study and will examine important themes, issues, and aesthetic considerations. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 2573 Canadian Literature 2

A survey of Canadian literature in English from World War Two to the present. The course will provide an overview of significant developments in English-Canadian literature as well as a more detailed exploration of particular writers, themes, issues and literary concerns, such as postcolonialism, multiculturalism, gender and postmodernism. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 2683 American Literature 1

This course examines American literature of various genres (captivity narratives, slave narratives, essays, journals, stories and poetry) from the letters of Christopher Columbus, through the novels and poetry of the American Renaissance, to the Civil War poetry of Walt Whitman. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 2693 American Literature 2

Students will study the development of American poetry and fiction (including the emergence of Realism and Naturalism) from the Civil War to the 1930s. Major writers to be studied may include Henry James, Mark Twain, Emily Dickinson, Willa Cather, Robert Frost, Sherwood Anderson, Ernest Hemingway, and Wallace Stevens. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 2773 Eighteenth-Century Fiction

This course will introduce students to tales and novels written in Britain from the 1680 to the 1790s. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 2783 Nineteenth-Century Fiction

A study of the forms and functions of nineteenth-century fiction. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3053 Experimental Poetry

Introduces students to the origins and developments of experimental poetry, beginning with the revolutionary movements of the early 20th century (dada, imagism, surrealism, etc.), followed by an exploration of movements throughout the 20th century to the present. Experimental movements examined might include Objectism, Black Mountain poetics, $\mathrm{L}=\mathrm{A}=\mathrm{N}=\mathrm{G}=\mathrm{U}=\mathrm{A}=\mathrm{G}=\mathrm{E}$ Poetry, and Dub poetry. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C-or better.

## ENGL 3073 Theory

An advanced course in influential twentieth-century and contemporary theories of literature and culture. These theories will be studied and discussed with reference to the
history of theoretical thought and may include formalism, dialogism, psychoanalysis, structuralism, feminism, cultural studies, new historicism, poststructuralism, gender studies, postcolonialism, sexuality studies, and queer studies. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3083 Advanced Creative Writing 1: Poetry

An advanced course emphasizing craft, style and individual development in the writing of poetry. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) and permission of the Department.

## ENGL 3093 Advanced Creative Writing 2

An advanced course emphasizing craft, style, and individual development in the writing of fiction. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) and permission of the Department.

## ENGL 3283 Drama to 1600

A study of English drama from the late Middle Ages to 1600, including the Mystery Cycles and morality plays. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of Cor better.

## ENGL 3293 Renaissance Drama

A study of English plays from the Renaissance with an emphasis on non-Shakespearean drama. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3483 Victorian Poetry

This course provides a study of Victorian poetry and poetic theory from 1830 until 1900, introducing students to several important poetic genres in the Victorian Age: Victorian Lyric forms, the Victorian Sonnet, the Verse Novel, the Dramatic Poem, and the Victorian Epic. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3503 Poetry of Atlantic Canada

This course exposes students to a selection of works from the long and rich tradition of poetry in Atlantic Canada, from the Loyalist verse of colonial times to the poetry of the diverse and multicultural region of today. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3513 Fiction of Atlantic Canada

From the early nineteenth century sketches of Thomas McCulloch and Thomas Haliburton to the lyrical and comic contemporary novels of David Adams Richards, Lynn Coady and Wayne Johnston, the Atlantic Provinces have made a substantial contribution to Canadian fiction, and this course provides a historically and stylistically diverse sample of what Atlantic fiction writers have to offer. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3523 The Writer and Nature 1

This course traces the development of Nature Writing in English to the end of the nineteenth century. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of $C$ - or better.

## ENGL 3533 The Writer and Nature 2

An exploration of modern and postmodern colonial texts which have helped to shape an emerging ecological vision of nature. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of $C$ - or better.

## ENGL 3553 Modern American Poetry

In this course, students examine trends in American poetry from the 1930s to the present. The course will focus on collections of poetry by such poets as Langston Hughes, Allen Ginsberg, Sylvia Plath, Anne Sexton, Adrienne Rich, and Sharon Olds. Attention will be given to the historical contexts and critical debates that inform the works under study. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3563 Modern American Novel

This course offers a critical study of the American novel, in all its variety and diversity, from 1930 to the present. Writers to be studied may include Zora Neale Hurston, Carson McCullers, Richard Wright, Ralph Ellison, Jack Kerouac, and Truman Capote.
Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3573 Modern Canadian Poetry

This course will look at modern Canadian poetry and poetics from the early 20th century to the present, emphasizing modernism and how modernist and post-modernist ideas and movements, internationally and nationally, have shaped Canadian poetry. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3613 The Canadian Novel After 1930

This course will introduce readers to a selection of Canadian novels, written since 1930, in a diverse range of styles, from the allusive modernism of mid-century fiction to the postmodern and postcolonial fictions of today. Prerequisite: ENGL 1406 (ENGL $1413 / E N G L$ 1423) with a grade of C- or better.

## ENGL 3663 Postcolonial Literature 4: South Asian Literature

This course introduces students to contemporary South Asian literature written in English. Focusing on literature from India and the subcontinent, the course encourages students to recognize how South Asian writers explore issues of political and cultural autonomy through literature. Students will study works from writers as diverse as R.K. Narayan, Salman Rushdie, Nissim Ezekiel, Arundati Roy, and Jean Arasanayagam. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3673 Postcolonial Literature 1: African Literature

Introduces students to contemporary African Literature focusing on how African writers use literature to counter imperial legacies of invasion, settlement, and cultural destruction. to develop their historical and cultural understanding of African peoples, students will apply postcolonial reading strategies to works of various genres, tackling issues such as race, gender, language and nationalism. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3683 Postcolonial Literature 2: Caribbean Literature

Introduces students to Caribbean literature, focusing on how Caribbean literature emerges as a creative and self-affirming response to an imperial history of slavery and indentured labour. Students will apply postcolonial reading strategies to works of various genres, tackling issues such as race, gender, language creaolisation and hybridity. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3693 Postcolonial Literature 3: Australia and New Zealand - Settler Colony Literature

Introduces students to the literature and film of Australia and New Zealand, focusing on how literature and film from these settler colonies are used to counter imperial legacies of exile, invasion, and colonial stigmatisation. Studies will apply postcolonial reading strategies to works of various genres, tackling issues such as race, gender, language, hybridity and alienation. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3723 Fantasy

The genre of fantasy, from its antecedents to the present and in a variety of forms such as novels, picture books, graphic novels, and short fiction, taking into consideration changes in the perceptions and the construction of childhood and gender roles. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3733 The Historical Novel

A consideration of novels where a serious effort has been made to recreate the atmosphere of an earlier period at the time of writing. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of $C$ - or better.

## ENGL 3743 Tolkien: Author and Critic

This course explores J.R.R. Tolkien's Lord of the Rings in the context of Tolkien's career as a teacher and scholar of medieval language and literature. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3753 Studies in the Short Story

This course will introduce students to the short story written in English. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3763 Studies in the Canadian Short Story

The short story is considered a particular forte of Canadian writers, and this course will introduce students to a selection of Canada's finest and most engaging practitioners of the genre. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3773 Modern British Poetry

A study of the evolution of modern and contemporary British poetry. Poetry will be studied in its historical, cultural, and linguistic contexts. Poems will be selected to represent historical developments such as modernism, feminism, and postcolonialism as well as cultural topics such as war, religion, love, and politics. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3793 Modern British Fiction

A study of the evolution of modern and contemporary British fiction. Fiction by men and women will be studied in the context of the historical, political, and technological development of British culture. Fiction will be selected to represent literary movements such as modernism, postmodernism, and postcolonialism. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3833 Writing by Women 1 - Finding A Voice

The historical development, in English, of women's writing from the late eighteenth century to the 1920s. Texts will include American, British, and Canadian writers. Cultural and literary theory will be used to focus on the interrelationship of text/context, genre and gender, author(ity) and the relations of cultural production. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3843 Writing by Women 2 - Modern and Contemporary

An examination of modern and post-modern texts in English that reflect the wide range and cultural diversity of women writing in the twentieth and twenty-first centuries. Through the study of women's fiction and poetry from around the world students will explore such subjects as feminist theory and ecocriticism, gender and ethnicity, revisionist mythmaking, and growing up female. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of $C$ - or better.

## ENGL 3903 Canadian Children's Literature

An exploration of Canadian culture and childhood as presented in Canadian children's literature over time and across regions, including selections of poetry, picture books, fantasy, historical fiction, and realist novels for younger and older readers, taking into consideration changes in the perceptions and the construction of childhood and gender roles. May be taken for Women's and Gender Studies credit. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3973 Children's Literature 1

An introduction to the variety of periods and genres in children's literature ranging from the first Golden Age to the present with selections from younger and older readers, including poetry, picture books, fantasy historical fiction, and realist novels, taking into consideration changes in the perceptions and the construction of childhood and gender roles. May be taken for Women's and Gender Studies credit. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 3983 Children's Literature 2

An introduction to the body of folk and fairy tales that are the foundation for much of children's literature, covering their development from oral into written and illustrated versions, exploring a variety of the adaptations and reworkings over their history to the present day, and taking into consideration changes in the perceptions and the construction of childhood and gender roles. May be taken for Women's and Gender Studies credit. Prerequisite: ENGL 1406 (ENGL 1413/ENGL 1423) with a grade of C- or better.

## ENGL 4060 Introduction to Scholarly Methods (Non-Credit)

This is a research and bibliographical course required of all Honours students.

## 4000-level ENGL Seminar Courses

In these courses a limited field is chosen for intensive study. 4000-level seminars are restricted to third and fourth year Majors and Honours students (minors by permission).
ENGL 4013 Studies in Old English
ENGL 4033 Studies in Medieval Literature
ENGL 4053 Studies in Shakespeare
ENGL 4073 Studies in Sixteenth Century
ENGL 4113 Studies in Seventeenth Century
ENGL 4133 Studies in Eighteenth Century
ENGL 4153 Studies in Romantic Literature
ENGL 4173 Studies in Nineteenth Century
ENGL 4213 Studies in Twentieth Century
ENGL 4233 Studies in American Literature
ENGL 4253 Studies in Canadian Literature
ENGL 4273 Studies in Postcolonial Literature
ENGL 4313/23 Special Topics 1 and 2
ENGL 4996 Honours Thesis
Please consult the department website for a list of courses available in a given year. http://english.acadiau.ca

## ENVIRONMENTAL SCIENCE

## ENVS 1013 Introduction to Environmental Science 1

This course introduces students to the interdisciplinary nature of environmental science and the skills necessary for success in the discipline. It integrates fundamental science concepts from a number of disciplines (e.g. earth science, chemistry, biology, atmospheric science) and examines current environmental issues (e.g. global warming, acidification, deforestation, contaminants) within a multidisciplinary scientific context. Restricted to ENVS majors. Antirequisite: Credit cannot be obtained for both ENVS 1643 and ENVS 1013.

## ENVS 1023 Introduction to Environmental Science 2

This course is a continuation of the introduction to environmental science presented in ENVS 1013. Students approach issues of current environmental concern and develop interdisciplinary strategies for study and resolution. in addition, the overarching themes of environmental ethics, risk management and environmental policy are investigated. Prerequisite: ENVS 1013 or permission of the instructor.

## ENVS 1643 Human Activity and The Environment

A science-based exploration and study of the relationships between humans and the environment. Topics covered include the basics of ecosystems and natural resource management plus more detailed investigations of the impact of human practices such as consumption of resources, waste generation, and anthropogenic changes in the conditions of land, water, air and other species. Antirequisite: Credit cannot be obtained for both ENVS 1643 and ENVS 1013.

## ENVS 2523 Field Course: Environmental Science

Field techniques in environmental science, data analysis, and communication skills. Interdisciplinary approaches to field work and environmental analysis are incorporated into all exercises and discussions. Specific skills include geological mapping, field sampling, quality assurance/quality control, water quality measurement, and development of final report. (10-day course at the end of winter term). Prerequisite: Minimum second year standing in Environmental Science.

## ENVS 3113 Legal Issues in Environmental Science

A course designed to explore the constitutional, legislative and regulatory context of environmental law from a science perspective. A comparison and contrast of international environmental law responses for specific issues will be conducted in relation to Canada's treaty obligations and the common law system. Prerequisite: 6h science and third year standing.

## ENVS 3313 The Environment and Human Health

An exploration of the interactions between humans and the environment and the consequent effects on the health of each. Risk management is discussed in the context of public and environmental health as well as current regulatory initiatives. Topics include climate change, pesticides, water resources, global health governance, ecosystem health and socioeconomic conditions and health. Prerequisite: BIOL 1123 or BIOL 1823.

## ENVS 3423 Environmental Impact Assessment

An interdisciplinary approach to the principles, practices, and methods involved in environmental impact assessments. Impacts covered include socio-economic, soils and geology, ecology, air, water, climate, and noise. Prerequisite: third year standing in ENVS, ENGO, GEOL or permission of the instructor.

## ENVS 3503 Borders, Scale and the Environment

This course draws on interdisciplinary geographic perspectives to explore the spatial dimensions of environmental decision-making. It provides students with the tools to a) think critically about interactions between social and biophysical systems, and b) understand critical perspectives on borders and scale. Topics include state/nature relations, ecosystem management, local/global interactions, transboundary resource governance, and the politics of protected areas. Prerequisite: Open to all ESST and ENVS majors who have completed 54 credit hours. Antirequisite: Credit cannot be obtained for both ENVS 3503 and ESST 3503.

## ENVS 4013 Environmental Science Project

An independent study course in which students conduct literature, laboratory or field investigations on some particular issue in Environmental Science. The work must be sponsored and supervised by a member of the department. Students participate in planning the experiments and developing suitable procedures and techniques.
Prerequisite: permission of Department.

## ENVS 4023 Special Topics in Environmental Science

Selected current topics on environmental issues. Prerequisite: third year standing in environmental science or permission of the department.

## ENVS 4423 Senior Seminar in Environmental Science

In this course students will be challenged to synthesize the knowledge they have gained from contributing disciplines into an understanding of structures and processes in natural and disturbed environments. The goal will be to refine skills of critical analysis and interpretation of data and relationships among environmental variables and ecological systems.

## ENVS 4613 Contaminants in the Environment

This course will examine the historical release, fate, and risk assessment of chemicals in ecosystems. Lectures will cover: (i) the major classes of chemical contaminants; (ii) factors affecting contaminant fate in ecosystems (ii) methods of ecological risk assessment for contaminants (toxicity, persistence, bioaccumulation, and long range transport). Laboratory exercises will explore methods of assessing contaminant fate. Prerequisite: CHEM 2813 or 2853.

## ENVS 4996 Honours Thesis

This course requires the student to propose and carry out an original study and submit and defend a thesis. As a component of an interdisciplinary degree, the thesis should reflect an interdisciplinary approach to the issue under study. Prior to registering in 4996, students should normally have completed a thesis proposal and successfully established their ability to complete interdisciplinary work. Prerequisite: Completion of the first three years (90h) of the BScH ENVS program; CGPA of 3 or better.

## ENVIRONMENTAL AND SUSTAINABILITY STUDIES

ESST 1003 Sustainability Concepts and Systems
This course introduces the current state of our world with respect to environmental and sustainability issues, including core sustainability and ecological concepts, theory and analytical tools. It will use experiential and problem-based learning to investigate current issues. (1.5h lab) Corequisite: CODE 1023

ESST 1023 Perspectives on Environmental Philosophy, Thought and Practice This course looks at the history of environmentalism and conceptualizations of sustainability from a range of cultural and disciplinary perspectives. Prerequisite: ESST 1003.

## ESST 2003 Applied Leadership in Sustainability

Fundamental principles and tools for leadership development will be explored in the context of moving societies and communities toward sustainability. Through case studies, field experiences, and other experiential learning opportunities, students will explore the various dimensions of leadership including group dynamics, and its role in support of sustainable community development. Prerequisite: CODE 1023. Antirequisite: Credit cannot be obtained for both ESST 2003 and CODE 1013.

## ESST 2013 Environmental Justice and Equity

Environmental problems do not affect all people equally, nor do solutions work equally well for affected groups. This course draws on a variety of case studies to explore how environmental issues are experienced differently across class, race, gender, and NorthSouth lines, and critically examines the intersection of environmental and equity concerns. Prerequisite: One year of university study.

## ESST 3003 Investigating Sustainability Issues: Research Methods

An applied and transdisciplinary research course focusing on information needs that inform and influence decision-making and practice in the environmental and sustainability fields. Students engage with communities or organizations to identify information needs, select appropriate methodology, collect and interpret data, and develop suitable research reports. Prerequisite: ESST 1003 and ESST 2003 Antirequisite: Credit cannot be obtained for both ESST 3003 and CODE 2023.

## ESST 3503 Borders, Scale and the Environment

This course draws on interdisciplinary geographic perspectives to explore the spatial dimensions of environmental decision-making. It provides students with the tools to a) think critically about interactions between social and biophysical systems, and b) understand critical perspectives on borders and scale. Topics include state/nature relations, ecosystem management, local/global interactions, transboundary resource governance, and the politics of protected areas. Prerequisite: Open to all ESST and ENVS majors who have completed 54 credit hours.

## ESST 3513: Media and the Environment

This course will examine the role traditional and emergent media play in constructing and transforming our cultural, political, scientific and personal perspectives and understanding of our environment. Drawing on contemporary critical themes of media theory and practice, the course will examine how media frames and discourses are created to enable particular cultural forms of political economy and power. Prerequisite: ESST 1023, ESST 2003; or by permission of the ESST Coordinator.

## ESST 3523: Sustainable Technologies

This course will examine the role of technology in the context of sustainability. It will critically explore from social, political and historical perspectives how technological development has contributed both positively and negatively to the environmental crisis. Emphasis will be placed on how innovation with information, solar, wind, tidal and biomass technologies provides a path toward a more sustainable future. Prerequisite: ESST 1023, ESST 2003; or by permission of the ESST Coordinator.

## ESST 3993 Special Topics

An examination of individual theoretical or practical elements in the field of Environmental and Sustainability Studies. Prerequisite: ESST 2003 or permission of the instructor.

## ESST 4003 Environmental and Sustainability Studies Project

This course will integrate concepts in Environment and Sustainability Studies across concentration areas related to organizations, communities, societies and worldviews. It will focus on students completing a major community based research and/or engagement project related to their area of interest. Prerequisite: ESST 3003, or by permission of the instructor.

## ESST 4963 Directed Study

This course is a directed application or theoretical analysis of current knowledge in a selected topic in ESST. A major paper is prepared under the supervision of the faculty member teaching the course. Prerequisite: Permission of the instructor.

## ESST 4996 Honours Thesis

This course requires the student to propose and carry out a research study under the supervision of an approved supervisor and submit a thesis in accordance with the Program Guidelines of the student's degree discipline and in a format approved by the Honours Committee of Senate.

## FRENCH

- All students taking an initial course in French are expected to take a placement test, either before the start of classes or during the first week of the term. This selfadministered test can be accessed from the French section webpage.
- Students who have taken NS Grade 11 or 12 French (or a similar level from another province or country) will normally register in FRAN 1213/1223.
- Two courses (e.g. 1213, 1223) may not be taken simultaneously, nor may a student who has completed a given language course subsequently enroll for credit at a lower level.
- The department reserves the right to place students at the level of study appropriate to their linguistic abilities.
- Unless otherwise mentioned, all of the following courses are taught entirely in French. Many courses at the 3000 and 4000 level will be offered on a rotating basis. À compter de la 2è année, les cours se donnent presque entièrement en français.


## FRAN 1013 Beginning French 1

This course is intended for students whose first language is neither English nor French and whose second language is not French. All other students must obtain permission from the Department in order to register. This course introduces basic grammar and vocabulary. Emphasis is placed on written and oral communication. Students who have completed FRAN 1013 and 1023 may continue in FRAN 1113 and 1123.

## FRAN 1023 Beginning French 2

This course is intended for students whose first language is neither English nor French and whose second language is not French. All other students must obtain permission from the Department in order to register. This course introduces basic grammar and vocabulary. Emphasis is placed on written and oral communication. Students who have completed FRAN 1013 and 1023 may continue in FRAN 1113 and 1123. Prerequisite: FRAN 1013.

## FRAN 1113 Basic French 1

FRAN 1113/FRAN1123 are intended for students who are false beginners, students who have studies French for several years, or years ago, but who have not proceeded beyond the level of Grade 9 or 10 high school French. Students with Grade 11 or 12 French (or the equivalent) should normally register at the next level (FRAN 1213/FRAN 1223). Those who have taken French Immersion courses should register for FRAN 1613/1623.

## FRAN 1123 Basic French 2

FRAN 1113/FRAN1123 are intended for students who are false beginners, students who have studied French for several years, or years ago, but who have not proceeded beyond the level of Grade 9 or 10 high school French. Students with Grade 11 or 12 French (or the equivalent) should normally register at the next level (FRAN 1213/1223). Those who have taken French Immersion courses should register for FRAN 1613/FRAN 1623.
Prerequisite: FRAN 1113.

## FRAN 1213 Intermediate French 1

Prerequisite: 1123, or NS Grade 11 or 12 French (or equivalent), or the appropriate score on the French Placement Test.

## FRAN 1223 Intermediate French 2

These are the first year university courses normally taken by students who have completed Grade 11 or Grade 12 high school French. Basic grammar is reviewed and while effective communication, both oral and written, is stressed, students will be examined primarily on their written expression. Prerequisite: FRAN 1213.

## FRAN 1613 French for Immersion Students 1

FRAN 1613/1623 are intended for students who have studied French in Immersion programs to grade 12. The purpose of these courses is to enable immersion graduates to build on their strengths while becoming aware of and remedying ingrained errors. Selected texts will be analysed in order to apply the grammatical structures studied and to enrich vocabulary.

## FRAN 1623 French for Immersion Students 2

FRAN 1613/1623 are intended for students who have studied French in Immersion programs to grade 12. The purpose of these courses is to enable immersion graduates to build on their strengths while becoming aware of and remedying ingrained errors. Selected texts will be analysed in order to apply the grammatical structures studied and to enrich vocabulary. Prerequisite: FRAN 1613.

## FRAN 2003 Français, Monde Des Affaires, Et Francophonie

Exploration du français des affaires et de l'importance économique et commerciale des régions de langue française dans le monde contemporain. Ce cours allie l'apprentissage du français spécialisé pour le milieu des affaires (commerce, finance, fiscalité, administration) à une découverte interactive de la francophonie en Europe, en Amérique du Nord et en Afrique. Cours recommandé particulièrement pour les étudiants en administration et en commerce, ou pour les futurs entrepreneurs indépendants dans le contexte canadien. Préalable normal: FRAN 1223, FRAN 1623 ou un équivalent.

## FRAN 2013 Français Avancé, Niveau 1

Étude systématique de la syntaxe du français écrit, lecture et analyse de textes, et une initiation à la traduction de l'anglais au français qui permettront à l'étudiant de mieux maîtriser des outils de communication pouvant se révéler utiles dans de nombreuses circonstances de la vie professionnelle. Préalable normal: FRAN 1223, 1623 ou un équivalent, de préférence avec une moyenne minimale de $B$-.

## FRAN 2023 Français Avancé, Niveau 2

Poursuite du travail entrepris en FRAN 2013. Préalable normal: FRAN 2013 ou un équivalent.

## FRAN 2033 Français Scientifique

Approche spécifique du français dans divers domaines scientifiques et particulièrement en biologie. Le cours vise à développer et renforcer les compétences langagières touchant à des notions scientifiques, notamment la terminologie, autant pour la lecture de
documents scientifiques que pour la communication active. Préalable normal: FRAN 1223, 1623 ou équivalent avec une note minimale de $B$-.

## FRAN 2113 Panorama De La Littérature Française 1: Des Origines À 1800

À travers les textes littéraires, c'est l'évolution de la culture et de la société qui devient évidente. Lire, c'est aussi améliorer sa compréhension de la richesse et de la diversité linguistique des époques passées. Un choix de textes permettra de se familiariser avec l'évolution de la France entre les premiers textes en français et l'époque de la Révolution de 1789.

## FRAN 2123 Panorama De La Littérature Française 2: Des Origines À Nos Jours

Au 19ème et au 2oème siècles, la littérature française joue un rôle important dans l'ensemble de la culture mondiale, par son prestige, son originalité et son influence. Un choix de textes majeurs permettra de comprendre l'évolution des différents genres littéraires du premier romantisme jusqu'à l'ère de la déconstruction et de la littérature commerciale de masse.

## FRAN 2153 Compréhension Et Expression Orales, Niveau 1

Apprentissage de stratégies de communication et de structures langagières qui permettront à l'étudiant d'être à l'aise dans des situations de communication courantes. Jeux, présentations orales, discussions, débats sur des sujets variés seront utilisés avec des documents authentiques, articles de magazine, émissions de radio et de télévision, films et chansons. Doit être combiné avec: FRAN 1213, FRAN 1613 ou équivalent. Les étudiants qui auront déjà obtenu un credit en FRAN 2013/FRAN 2023 ne seront pas admis à ce cours.

## FRAN 2163 Compréhension Et Expression Orales, Niveau 2

Poursuite du travail entrepris en FRAN 2153. Préalable: FRAN 2153 ou équivalent.

## FRAN 2713 Compréhension Et Expression Écrites

Apprentissage progressif du français écrit: lire et écrire d'une façon plus efficace. L’accent sera mis sur l'acquisition d'un vocabulaire plus riche, la maîtrise de structures utiles pour l'expression écrite et les techniques de l'autocorrection. Les lectures seront tirées de documents médiatiques récents. L'étude de la grammaire en soi joue un rôle mineur dans ce cours. Il est donc fortement recommandé de suivre en même temps FRAN 1213/FRAN 1223, FRAN 1613/FRAN 1623 ou FRAN 2013/FRAN 2023. Les étudiants qui auront déjà obtenu un crédit en FRAN 2023 ne seront pas admis à ce cours. Les spécialistes de français doivent suivre ce cours ou bien le FRAN 3733.

## FRAN 3013 Langue Française Et Analyse Linguistique

S'appuyant sur une terminologie linguistique en français, on analysera à partir d'exemples concrets le fonctionnement de la langue française dans son état actuel, son évolution historique et sa diversité géographique. Initiation à la phonétique et à la phonologie, à l'analyse morphologique, syntaxique, ainsi qu'aux bases de la lexicologie, de la sémantique et de la sémiotique.

## FRAN 3023 Bases De Traduction Générale

Renforcement des capacités écrites de communication. D'une part, on révisera des structures syntaxiques avancées en français et en anglais, de façon parallèle; d'autre part, on travaillera intensivement (avec un système de double correction) des traductions de textes A-F (70\%) et F-A (30\%) dans tous les domaines - d'articles de journaux aux brochures touristiques - et à divers niveaux de langue.

FRAN 3133 Littérature Française Moderne
Lecture et analyse d'oeuvres choisies des romanciers, dramaturges et poètes les plus représentatifs du 2oème siècle. on mettra l'accent chaque année sur un genre spécifique, selon les désirs du professeur et des étudiants: roman, théâtre, poésie ou chanson.

## FRAN 3153 Expression Orale Avancée, Niveau 3

Les étudiants apprendront un vocabulaire et des expressions se rapportant à des thèmes tirés de leur vécu. Des débats, discussions et présentations orales leur permettront de mettre ce savoir en pratique. L'improvisation y jouera aussi un rôle important. Des bulletins de nouvelles et des chansons serviront d'exercices de compréhension orale.

## FRAN 3163 Expression Orale Avancée, Niveau 4 <br> Poursuite du travail entrepris en FRAN 3153.

## FRAN 3203 Voix De Femmes

Ce cours cherche à mettre en valeur la richesse et la diversité des œuvres de femmes écrivains de langue française. À travers un choix d'œuvres de différents siècles, on examinera, entre autres problématiques, la venue de la femme à l'écriture, l'inscription de l'expérience féminine dans les textes et la mise en question de présupposés politiques, sociaux et esthétiques courants.

## FRAN 3213 Littérature Jeunesse

Étude des formes littéraires, passées et présentes, qui visent surtout les enfants de 2 à 12 ans: contes populaires, comptines, chansons, albums pour enfants, histoires pour jeunes, bandes dessinées, pages internet.

## FRAN 3313 Séminaire 1

## FRAN 3323 La Littérature Migrante Au Québec

Exploration d'un phénomène nouveau et important dans la littérature québécoise contemporaine: la publication d'œuvres écrites en français, au Québec, par des auteurs venus de pays divers comme le Brésil, l'Égypte, la Chine, l'Italie, Haïti. on abordera des thèmes reliés à l'enfance, au souvenir, à l'exil forcé ou volontaire, à l'adaptation à une nouvelle société et aux différences culturelles.

## FRAN 3443 Panorama Des Littératures Francophones De L'amérique

Ce cours étudie les principaux mouvements de migration, de déportation et d'exil qui ont créé une FRANcophonie en Amérique. Des auteurs de la Martinique, de la Guadeloupe, d'Haïti, de l'Acadie, de la Louisiane, de l'Ontario et du Manitoba seront étudiés.
Prérequis: FRAN 2113/FRAN 2123 ou avec la permission du département.

## FRAN 3513 L'acadie: Une Culture Unique

Au dix-huitième siècle, des communautés américaines d'origines régionales diverses, en France et ailleurs (Poitou, Champagne, Bourgogne, Pays basque, entre autres) se donnent une identité nouvelle. Quelles sont les bases matérielles et culturelles de la réalité acadienne? Comment a-t-elle évolué? Se concentrant sur les provinces maritimes du Canada, on touchera aussi à la Louisiane, à la Nouvelle-Angleterre, au Québec et à la France.

## FRAN 3523 L'acadie: Quatre Siècles D'expression Littéraire

Depuis les années 1950, une littérature extrêmement riche affirme l'importance de l'espace imaginaire acadien dans la francophonie. Cet espace imaginaire remonte au 16 ème siècle; on peut en suivre les traces écrites et orales. Avec Antonine Maillet et 25 ans d'édition en Acadie, une littérature moderne s'affirme, tout en redécouvrant la richesse de son passé, dans toutes les régions de l'Acadie, ce «pays imaginaire».

FRAN 3633 Le Québec Moderne
Le cours a pour but l'exploration de la spécificité socioculturelle du Québec. À l'aide de documents authentiques (chansons, films, articles de journaux, émissions de radio et de télévision), nous aborderons les aspects suivants de la réalité québécoise: la géographie, l'histoire, la langue, la religion, la famille, l'éducation et les arts.

## FRAN 3643 Panorama De La Littérature Québécoise

Les grandes étapes du développement d'une littérature originale française en terre d'Amérique, des récits de voyage d'explorateurs et de missionnaires de la Nouvelle-France au roman moderne, en passant par la poésie des 19ème et 20 ème siècles et le roman de la terre. L'accent sera mis sur les genres narratifs - roman et nouvelle - leur évolution formelle et thématique, et les idéologies dominantes qui s'inscrivent dans les œuvres littéraires à une époque donnée.

## FRAN 3703 La France Contemporaine

Exploration au moyen - entre autres - de films, de textes, de sites internet, des traits principaux qui caractérisent la France et les Français d'aujourd'hui.

## FRAN 3733 Expression Écrite Avancée

Cours destiné à ceux et à celles qui ont réussi le FRAN 2013/FRAN 2023 (ou sont en train de le suivre) et veulent continuer à développer leurs compétences dans les domaines de la lecture en français et du français écrit. Des exercices de compréhension, de contraction de texte et de rédaction, enrichis de l'analyse de textes modèles, initieront les étudiants à une variété de genres et de styles.

## FRAN 3743 Compréhension Écrite Avancée

Ce cours vise les étudiants qui maîtrisent bien la grammaire fondamentale du français et cherchent à consolider leurs compétences en abordant des sujets plus complexes. L'étude des structures sera renforcée par la lecture d'une variété de textes permettant d'acquérir de meilleures connaissances des cultures francophones, tout en développant le vocabulaire et la maîtrise d'expressions idiomatiques. Préalable: FRAN 2023.

## FRAN 4003 Sociolinguistique

Ce cours vise à faire prendre conscience aux étudiants des politiques linguistiques qui existent à travers le monde. Les étudiants compareront les efforts faits par les gouvernements de plusieurs pays pour protéger leurs minorités linguistiques. Le Canada et ses minorités francophones feront l'objet d'une attention particulière. on fera appel régulièrement à des enregistrements audio et vidéo.

## FRAN 4013 Langage Et Cognition

Ce cours vise à sensibiliser les étudiants aux concepts fondamentaux relatifs au langage en français. Une initiation théorique et pratique à l'analyse de textes français littéraires et non littéraires. Les thèmes abordés incluent: la nature du langage humain; le langage comme outil de communication, le langage et la cognition humaine, la faculté de langage et l'hypothèse de la modularité du cerveau. Préalable: FRAN 2023.

## FRAN 4103 Introduction Aux Méthodes D'analyse Littéraire

Ce cours a pour but l'exploration de différentes méthodes pour analyser les textes littéraires. on examinera quatre perspectives majeures: le texte lui-même, le texte et son auteur, le texte et son contexte, le texte et son lecteur / traducteur / adaptateur. on mettra l'accent sur une variété de genres différents: poème, roman, théâtre, et scénario de film.

FRAN 4403 Méthodologie De L'enseignement Du Français Langue Seconde Les étudiants se familiariseront avec les méthodes actuelles d'enseignement du français langue seconde. Le curriculum multidimensionnel y sera expliqué. Les implications
pédagogiques en seront dégagées. Des plans de leçon permettront de mettre en pratique ces connaissances méthodologiques.

## FRAN 4413 Lectures Dirigées 1

Ce cours permet aux enseignants et aux étudiants d'aborder des sujets spécifiques qui ne feraient pas l'objet d'un cours déjà existant, y compris la possibilité d'un cours en création littéraire. Les sujets et le cadre en sont déterminés par accord entre le département, l'enseignant et les étudiants concernés.

## FRAN 4423 Lectures Dirigées 2

Ce cours est le complément du cours FRAN 4413, le cas échéant.

## FRAN 4553 Littérature Francophone: Post-Colonialisme Dans Les <br> Littératures Africaine Et Antillaise

Ce cours analyse certains textes de la FRANcophonie incluant les auteurs africains et antillais. Certains concepts du post colonialisme sont aussi analysés à travers les théories de Jean-Paul Sartre, d’André Breton. Ces textes faciliteront la compréhension des mouvements des indépendances et des autonomies en Afrique et dans les Antilles. Prérequis: FRAN 2113/FRAN 2123 ou équivalent ou avec la permission du département.

## FRAN 4613 Littérature Québécoise Contemporaine: Les Genres Brefs

La nouvelle, le théâtre, la poésie et la chanson sont de plus en plus populaires au Québec. Comment les analyser sinon en examinant les caractéristiques propres de chacun? Ce cours propose donc l'étude de la spécificité du texte dramatique, du langage poétique et de l'oralité ainsi que l'explication de textes représentatifs de ces genres dits brefs.

## FRAN 4713 Le Théâtre Classique

Le 17ème siècle constitue le premier âge d'or du théâtre français. Les auteurs y posent les bases d'une dramaturgie qui hantera la création théâtrale en France pendant trois siècles: grandes passions entrant en conflit avec les valeurs morales et sociales acceptées, folies de l'être humain livré à ses obsessions: Corneille, Racine ou Molière nous font toujours réfléchir aux mouvements de l'âme humaine.

## FRAN 4823 La Liberté

Ce thème révolutionnaire par excellence sera étudié dans l'oeuvre de philosophes et romanciers tels que Rousseau ou Diderot, de romanciers tels que l'abbé Prévost, et d'auteurs de théâtre tels que Beaumarchais. on se concentrera particulièrement sur les auteurs du «siècle des lumières».

## FRAN 4833 Le Roman Au Dix-Huitième Siècle

En France, le dix-huitième siècle est une époque importante pour l'évolution du roman, un genre qui est encore à ses débuts. Romans épistolaires, récits à la première personne, narrations encadrées, romans expérimentaux, les formes foisonnent on étudiera. Nous étudierons un choix d'ouvrages qui permettront de suivre les transformations que cette forme encore jeune est en train de subir.

## FRAN 4913: Le roman au dix-neuvième siècle

Étude de romans représentatifs des principaux mouvements litté raires du dix-neuvième siècle: le romantisme, le ré alisme et le naturalisme.

## FRAN 4923: Poésie et théâtre du dix-neuvième siècle

Étude de poèmes et pièces de théâtre représentatifs des principaux mouvements et genres littéraires du dix-neuvième siècle.

## FRAN 4996 Honours Thesis

## GEOLOGY

## GEOL 1013 Our Dynamic Earth

An introduction to the Earth; its composition, internal structure, external features, and physical evolution. The concepts of sea-floor spreading and plate tectonics provide a framework for the origin and development of continents, oceans, mountains and volcanoes, and lead to an appreciation of an evolving, dynamic Earth. Field trips required. (3h lab).

## GEOL 1023 Earth History: Global Change Through Time

Changes in the Earth's continents, oceans, biosphere, and atmosphere over the past 4.6 billion years. The application of understanding of the past as a key to future global changes. Other topics include mass extinctions, plate tectonics, paleomagnetism, geologic dating, mountain-building and mineral resources. (3h lab) Prerequisite: GEOL 1013, or equivalent with a grade of C- or better.

## GEOL 1033 General Oceanography

Offshore and deep-water oceanography, emphasizing an interdisciplinary approach and including geological, biological, physical and chemical aspects. History of oceanography; exploration techniques, instruments and vessels; origin of oceans and ocean basins; physiography of the ocean basins; deep-sea sediments; continental drift, sea-floor spreading and plate tectonics; marine volcanism; waves, tides and ocean currents; climatology and sea- level changes; marine ecology; marine resources.

## GEOL 1073 Natural Disasters

Natural disasters, their causes and effects and the science that underlies decision-making, prediction, and remediation. Topics include volcanoes, earthquakes, tsunamis, rivers and flooding, mass wasting and erosion, subsidence, coastal hazards, severe weather, climate change, impacts and extinctions.

## GEOL 2043 Techniques in Petrology and Stratigraphy

Origin, occurrence, composition, and classification of igneous, sedimentary, and metamorphic rocks. An integrated overview of petrogenetic processes in a plate tectonic framework, including magma genesis, clastic and carbonate depositional processes, stratigraphic principles, and metamorphic zones and facies. Laboratory study of rocks in hand sample and thin section. (3h lab) Prerequisite: GEOL 2133 with a grade of C- or better; Prerequisite or Corequisite: GEOL 1023 with a grade of C- or better.

## GEOL 2083 Field Methods

Held each spring for twelve days, focusing on field work and processing of field data to familiarize students with techniques of geological mapping. Involves electronic and manual measurement of field data including use of GPS instruments and laptop computers and subsequent preparation of maps, sedimentary sections, and cross-sections in paper and digital form. Prerequisite: GEOL 2043 with a grade of C- or better or permission of the Department.

## GEOL 2133 Mineralogy

Crystal symmetry and structure. Mineral chemistry, physical properties, associations, and uses. Identification of common minerals in hand sample. X-ray diffraction, transmitted light optical theory, and introduction to the petrographic microscope. (3h lab) Prerequisite: GEOL 1013 with a grade of C-or better (corequisite with Department permission) Corequisite: CHEM 1013.

## GEOL 2213 History of Life

The morphology, classification and evolution of the major groups of animals and plants in the fossil record. Emphasis will be on invertebrate paleontology, but attention will be given to the origin of life, Precambrian fossils, trace fossils, micro-fossils, fossil algae, vascular plants, lower vertebrates, dinosaurs and man. Laboratory work will include a systematic survey of the major groups of organisms having a fossil record. (3h lab)
Prerequisite: BIOL 1123 or GEOL 1023 with grades of C- or better.

## GEOL 2703 Applied Geomorphology

Basic concepts in geomorphology including fluvial systems, continental glaciation, coastal processes, mass wasting, soil development, strength of materials, weathering, periglacial geomorphology, and airphoto interpretation. Emphasis will be on the environmental application of these concepts. Laboratory work will concentrate on airphoto interpretation and mini-projects related to some of these themes. (3h lab) Prerequisite: GEOL 1013 with a grade of $C$ - or better.

## GEOL 2753 Atmosphere, Weather, and Climate

The composition, structure, and dynamics of the atmosphere; weather, climate, and biogeographic patterns; microclimatology; paleoclimates, paleogeography, and extinctions; human effect on air quality; climate change. (3h lab) Prerequisite: Second year standing.

## GEOL 3103 Introduction to Geochemistry

Investigation of chemical principles involved in geologic processes, emphasizing those acting on the surface and in near-surface environments. Topics include weathering, mineral exploration and environmental geochemistry applications. May be offered in alternate years. (3h lab) Prerequisite: GEOL 2133 with a grade of C- or better; Prerequisite or Corequisite: CHEM 1023.

## GEOL 3303 Clastic Sedimentology and Petroleum Geology

This course focuses on the origin, composition and diagenesis of clastic rocks. Lectures cover: clastic sediments and depositional environments, facies models, petrographic and geochemical analysis of clastic rocks; reservoir development, origin and maturation of petroleum. Field exercises emphasize depositional systems at a variety of scales, laboratory work emphasizes the petrology and diagenesis of clastic rocks and petroleum. (3h lab) Prerequisite: GEOL 2043 with a grade of C- or better.

## GEOL 3323 Carbonate Sedimentology and Reservoir Development

This course focuses on the origin, composition and diagenesis of carbonate rocks. Lectures cover: modern carbonate sediments and depositional environments; development of facies models; petrographic and geochemical analysis of limestone and dolostone; petroleum and groundwater reservoir development. Laboratory exercises emphasize the interpretation of limestone lithofacies to understand paleoenvironments of deposition. (3h lab) Prerequisite: GEOL 2043 or GEOL 2213 or BIOL 1113 with a grade of C- or better.

## GEOL 3403 Igneous Petrology

The origin of magmas, their evolution, and crystallization. Igneous provinces and the relation between igneous activity and tectonics. Patterns of igneous activity through geological time. Laboratory studies of classical and local igneous rock suites. (3h lab) Prerequisite: GEOL 2043 with a grade of C- or better.

## GEOL 3503 Metamorphic Geology

The mineralogical, textural, and structural characteristics of metamorphic rocks and the development of metamorphic facies. Contact and regional metamorphism, metasomatism, and anatexis are considered in detail. Current ideas relating metamorphism and tectonic
setting provide the framework. Laboratory studies of classical and local metamorphic rock suites. (3h lab) Prerequisite: GEOL 2043, GEOL 3603 with grades of C- or better; GEOL 3403 recommended.

## GEOL 3603 Structural Geology and Tectonics

Rock structures and their geometric representation. Principles of stress and strain applied to brittle and ductile rock deformation. Fractures, faults, folds, and foliations: classification and mechanisms of formation. Plate boundary and intraplate tectonics. Practical work includes map interpretation, graphic and computer techniques for analyzing structural data, and field studies of deformed rocks. (3h lab) Prerequisite: GEOL 2043 with a grade of C- or better.

## GEOL 3723 Hydrogeology

Groundwater as part of the hydrologic cycle. Physical aspects of water movement in geologic materials - both saturated and unsaturated. Groundwater resource mapping and exploitation. Groundwater chemistry and biology: drinking water quality, contamination and associated health concerns. Exposure to laboratory and field techniques for groundwater monitoring. Field trips may be required. (3h lab) Prerequisite: GEOL 2703 with a grade of C- or better.

## GEOL 3733 Satellite Remote Sensing and Image Analysis

An introduction to the principles, practices and applications of satellite remote sensing. Electromagnetic spectra, satellite platforms, image enhancement, image classification and interpretation. Environmental and resource applications will be discussed. Laboratory work focuses on using image analysis programs to analyze satellite imagery. (3h lab) Prerequisite: GEOL 2703 or BIOL 2033, with a grade of C- or better and permission of the instructor.

## GEOL 3823 Exploration and Environmental Geophysics

Principles and applications of geophysical methods used by the exploration and environmental geologist, including seismic, magnetic, gravimetric, electromagnetic, electric, and radiometric methods. May be offered in alternate years. (3h lab) Prerequisite: GEOL 2043 with a grade of C- or better.

## GEOL 4013 Global and North American Geology

Global tectonics, processes at convergent plate margins, worldwide Phanerozoic orogenic belts and Precambrian tectonics. An integrative study of the geological evolution of North America, including stratigraphy, structural development, and Quaternary history but with an emphasis on comparative tectonic evolution of the Cordilleran, Appalachian, and Precambrian orogenic belts. Laboratory work includes map interpretation and petrological studies of rock suites (3h lab). Prerequisite: GEOL 3603 with a grade of C- or better.

## GEOL 4083 Field School

Held for about 12 days preceding fall term and continuing into the term. Advanced field methods of geological mapping with preparation of a map and report. Prerequisite: GEOL 2083, GEOL 3603, both with a grade of C- or better.

## GEOL 4303 Carbonate Sedimentology Field School

This course focuses on the sedimentology, oceanography, and diagenesis of carbonate sediments and rocks of Bermuda. Investigation of Nova Scotia limestones introduces key concepts. Lectures and field exercises focus on carbonate depositional environments and the development of groundwater and hydrocarbon reservoirs in limestone. Assignments use sedimentologic, ecologic, and chemical techniques to understand the deposition of carbonate facies. Prerequisite GEOL 3323 or by permission of the instructor.

## GEOL 4713 Quaternary Geology

An advanced treatment in Quaternary Geology with emphasis on methods of investigating environmental change. Topics covered will include Quaternary paleoenvironments, methods of paleoclimate reconstruction, dating techniques, records of Holocene climate change, mapping in Quaternary environments, exploration in glaciated terrain.
Prerequisite: permission of Department.

## GEOL 4803 Mineral Deposits

The nature, occurrence and origin of mineral deposits, with emphasis on metallic deposits. (3h lab) Prerequisite: GEOL 3403, GEOL 3603, both with a grade of C- or better.

## GEOL 4813 Mineral Exploration

Introduction to mineral exploration techniques, economic deposit evaluation strategies, and mining and processing methods. Offered only when the corresponding graduate course GEOL 5883 is taught. (3h lab) Prerequisite: GEOL 4803 with a grade of C- or better.

## GEOL 4833 Exploration and Environmental Geochemistry

Geochemical principles and techniques applied in mineral exploration and environmental geochemistry. Includes theory of dispersion, natural precipitation barriers, solubility, sorption and the design and execution of geochemical surveys, analysis of samples, and interpretation of results. Offered only when the corresponding graduate course (GEOL 5833 ) is taught. Prerequisite: GEOL 3103, GEOL 4803, or CHEM 2853, with a grade of C- or better.

## GEOL 4853 Geochemical Material Transfer

Introduction to the theory of material transfer and its use in interpreting geochemical and mineralogical controls on rock composition and formation, including water-rock and melt-crystal reactions and physical grain fractionation. Interpretation of results using petrologic hypothesis testing and error propagation. Corequisite: GEOL 3403 or GEOL 3503. Offered only when the corresponding graduate course (GEOL 5823) is taught.

## GEOL 4913, 4923, 4933 Special Projects

Guided study in an area of particular interest under the direction of a staff member. Such work may be based on lecture, field, laboratory or library study, or all four, focusing on aspects of earth science not normally covered in the scheduled course offerings. The student may have responsibility in programming the research in addition to its conduct. Prerequisite: permission of Department.

## GEOL 4996 Honours Thesis

## GERMAN

The department reserves the right to direct students to the course most appropriate to their level of competency.

## GERM 1013 German for Beginners 1

Students acquire basic speaking, reading and writing skills in German by using different learning tools (project work, internet and online tasks, video clips etc.). A variety of group and pair-activities combined with grammatical instruction will provide students with ample opportunity to strengthen and increase their communication skills.

## GERM 1023 German for Beginners 2

Students acquire basic speaking, reading and writing skills in German by using different learning tools (project work, internet and online tasks, video clips etc.). A variety of group
and pair-activities combined with grammatical instruction will provide students with ample opportunity to strengthen and increase their communication skills. Prerequisite: GERM 1013 or equiv.

## GERM 2013 Intermediate German 1

After a quick review of basics, new grammatical structures are introduced. Comprehension and speaking as well as writing are practiced, using as aids, texts and slides on modern Germany. Prerequisite: GERM 1023 or equiv.

## GERM 2023 Intermediate German 1

After a quick review of basics, new grammatical structures are introduced. Comprehension and speaking as well as writing are practiced, using as aids, texts and slides on modern Germany. Prerequisite: GERM 2013 or equiv.

## GERM 2513 Intermediate Conversational German 1

The emphasis is on the acquisition of vocabulary, idioms and sentence structure necessary for dealing with situations in everyday life as well as for mastering conversations on relevant topics. Written work is involved. Grammar is reviewed on an ad hoc basis only. Prerequisite or Corequisite: GERM 2013 or permission of Department.

## GERM 2523 Intermediate Conversational German 2

The emphasis is on the acquisition of vocabulary, idioms and sentence structure necessary for dealing with situations in everyday life as well as for mastering conversations on relevant topics. Written work is involved. Grammar is reviewed on an ad hoc basis only. Prerequisite or corequisite: GERM 2023 or permission of Department.

## GERM 2813 Introduction to German Culture and Literature 1

in the past 130 years Germany played a pivotal role in Europe. What is unique about Germany? This course attempts to answer these questions with historical and contemporary texts, films and other media, and through literature. This course is taught in English. Prerequisite: second year standing.

## GERM 2823 Introduction to German Culture and Literature 2

Continuation of GERM 2813. Prerequisite: second year standing

## GERM 2913 From War to War

Reflections of German political and social history from WWI to WWII through its literature. Through selected readings in German literature, this course looks at how German authors define the German nation and its pivotal role in history, especially in World War I and the Third Reich. This course is taught in English.

## GERM 2923 Division and Unification

Reflections of German political and social history from the end of WWII to the fall of the Wall though its literature. Selected readings in this course examine Germany and Germans in the post World War II era, their retrospective interpretation of the war and their view of the place of a divided, then reunited Germany in the world. This course is taught in English.

## GERM 3013 Advanced German 1

Main topics are speaking, reading, writing German at the advanced level, review of German grammar, introduction to written composition, discussion of nonfictional and fictional German texts. Prerequisite: GERM 2023 or permission of Department.

## GERM 3023 Advanced German 2

Main topics are speaking, reading, writing German at the advanced level, review of German grammar, introduction to written composition, discussion of nonfictional and fictional German texts. Prerequisite: GERM 3013.

## GERM 3313 Modern and Contemporary German Literature 1

A study of literary developments in Germany from the turn of the century to World War II.

## GERM 3323 Modern and Contemporary German Literature 2

A study of literary developments in Germany since World War II.

## GERM 3413 History of German Literature 1

A survey of literary and cultural developments from the beginnings of German literature until the age of Enlightenment. Prerequisite: permission of Department.

## GERM 3423 History of German Literature 2

A survey of literary and cultural developments from the late eighteenth to twentieth century.

## GERM 3503 Reformation to Enlightenment

This course will focus on the study of representative authors of this period such as Martin Luther, Hans Sachs, Martin Opitz, J.J.C. von Grimmelshausen, J.C. Gottsched, and G.E. Lessing.

## GERM 3603 Classical Period and Early Romanticism

A survey of the major ideas and literature of the classical period. The attention focuses on the works of Goethe and Schiller. Introduction to the theoretical and poetic works of early romantic authors such as Wackenroder, Tieck, Schlegel, and Novalis.

## GERM 3703 Pre-Realist Period

This course deals with the literature from the age which overlaps Classicism and Romanticism and includes authors, dramatists and poets who do not fit in those categories or certain works by otherwise Classical and Romantic poets that cannot be seen as belonging (completely) to Classicism or Romanticism. The course will study a cross section of plays, novellas and poems by Heinrich von Kleist, Eduard Mörike, Franz Grillparzer, Georg Büchner, Heinrich Heine, Adalbert Stifter.

## GERM 3803 Realism

This course focuses on the literature of the age of Realism which lies roughly between 1850 and 1900. It will include works by Gottfried Keller, Wilhelm Raabe, Theodor Storm, Conrad Ferdinand Meyer, the early Thomas Mann, and Friedrich Nietzsche. Special emphasis will be placed on the works of Theodor Fontane.

## GERM 4813/4823 Individual Readings of German Literature

## GERM 4996 Honours Thesis

## GREEK

## GREE 1103 Elementary Greek I

Introduction to classical Greek, using a reading rather than a conversational approach. Emphasis is on learning the basics of Greek grammar. This course counts toward the second language requirement.

GREE 1113 Elementary Greek II
Completion of the introduction to classical Greek continuing with the reading approach and course materials used in Elementary Greek I. This course counts toward the second language requirement. Prerequisite: GREE 1103.

## GREE 2006 Intermediate Greek

The study of classical Greek, continuing with the reading approach used in Elementary Greek. After a period of review, students begin their study of advanced aspects of Greek accidence, grammar and syntax. Prerequisite: GREE 1113 with a B- or better.

## GREE 2906 Selected Readings in Greek Texts

Selections from classical Greek authors. Prerequisite: GREE 1113 with a B- or better.

## GREE 3006 Advanced Greek

Grammatical readings of a sampling of ancient Greek texts in literature and philosophy, selected to prepare students for graduate study in Classics. Students must be prepared to make a significant investment of time in their study of Greek at this level. Prerequisite: GREE 2006 with a B- or better.

## GREE 3106 Hellenistic Greek

Readings from a large variety of Jewish, Christian, and pagan texts from the Hellenistic and Roman periods. Prerequisite: GREE 2006 with a B- or better.

## HISTORY

## HIST 1103 Introduction to Western Civilization 1

Leading developments in Western civilization from ancient societies to the French Revolution. Students will be introduced to various historical concepts, skills, and methodologies.

## HIST 1113 Introduction to Western Civilization 2

Leading developments in Western civilization from the French Revolution to the present. Students will be introduced to various historical concepts, skills, and methodologies.

## HIST 1413 Global History Before 1500

This course uses a thematic and comparative approach to explore major issues in world history. Students will examine different cultural zones and historical eras, from the inception of the agricultural revolution to the emergence of Europe as a dominant region of the globe. Themes include trade, environment, cities, patriarchy, technology, and political systems.

## HIST 1423 Global History After 1500

This course examines the intricate links among cultures that have arisen in the last five centuries. This period witnessed the rapid rise of the West to economic, political and cultural dominance. in response various forms of resistance and nationalism emerged, with remarkable ideological innovation and social transformations in China, India, the Middle East, Africa, and Latin America.

## HIST 1533 Britain in World History to 1707

This course explores major issues in history, focusing on Britain within a broad geographic context. Students will examine Prehistoric, Celtic and Roman Britain, Saxons and Vikings, the Middle Ages, the Tudors and Stuarts. Themes include migration, trade, settlements, gender, religion, and the growth of kingdoms and parliament.

## HIST 1613 The Ideas that Have Moved the Modern World

Spanning the 18th Century Enlightenment to the Era of Globalization, this course introduces students to the most influential ideas of the modern era as well as the social movements they produced. Among the topics explored are romanticism, nationalism, conservatism, socialism, irrationalism, Freudianism, and Nazism. Our focus is on the political ideologies that defined the landscape of the 20th century.

## HIST 1713 War and the World: Global Military History since 1500

This course surveys major developments in global military history since 1500. Emphasis will be placed on the impact of new technologies, weapons, environments, tactics and strategies, but continuities in the conduct of war will also be considered. A global perspective is crucial to this course.

## HIST 1813 History of Art: Prehistory to 1400

Art from prehistoric times to Giotto is considered in relation to its cultural and historical context. Cross-coded as ART 1813. Antirequisite: Credit cannot be obtained for HIST 1813 and ART 1813 or ART 1113.

## HIST 1823 History of Art: 1400 to Present

Art from the time of Giotto to the present is considered in relation to its cultural and historical context. Cross-coded as HIST 1823. Antirequisite: Credit cannot be obtained for HIST 1823 and ART 1823 or ART 1123.

## HIST 1913 The African Canadian Experience

Spanning 400 years of the African presence in Canada, this course explores how Africandescended peoples have resisted slavery and racial oppression, and the political, social, economic, gender, class and other factors that have influenced their experience. Through lectures, field trips and hands-on workshops, students learn how African Canadians have contributed to the building of this nation, and the global diaspora. Cross-coded as IDST 1213. No prerequisite. Antirequisite: Credit cannot be obtained for both HIST 1913 and IDST 1213.

## HIST 2003 The Christian Religious Tradition

An analysis of the development of the Christian religious tradition, noting its cultural contextualization, institutional themes and religious rites and beliefs. Attention will be given to the formation of the religious community, eastern, western, Radical, Protestant and mystical varieties, major reforms and characters. Students will read original texts as well as major critiques and interpretations of Christianity. No prerequisites.

## HIST 2033 Ancient and Islamic Civilization in The Middle East

A survey of the Middle East from Sumero-Akkadian times (2500BCE) to the end of the Abbasid caliphate (1258CE). Traces the development of civilization through a renowned series of cultures and religions, such as those in the Babylonian and Persian periods. The rise of Islam as a major power in the region is emphasized. No prerequisite.

## HIST 2043 The Emergence of the Modern Middle East

The encroaching European imperialism and its political, economic, and social impact is the beginning of the region's modern era. Subjugation under Western powers, the rise of Zionism and the state of Israel, and the two world wars will be discussed. Such questions as political democracy, economic development, women's rights and political Islam are themes the course will examine. No prerequisite.

## HIST 2073 The Arab-Israeli Conflict

Arab and Israeli nationalism originated in the modern period and have been in conflict since the First World War. The course is a treatment of the origins and development of the conflict through the 2oth century, investigating national ideologies, issues central to the
contemporary peace process, such as borders, population transfers, and Jerusalem. No prerequisite.

## HIST 2123 Gender and Sexuality in Europe to 1789

A study of the role of gender from the early civilizations to 1789 . This course examines gender relations and societal expectations of women and men from the earliest civilizations to 1789. Prerequisite: 3oh of university courses or permission of the instructor.

## HIST 2133 Gender and Sexuality in Modern Europe

A study of the role of gender from 1789 to the 1960s. This course examines gender relations and societal expectations of women and men from the French Revolution to the mid-twentieth century. A discussion of the cultural and political dimensions of gender and sexuality. Prerequisite: 3oh of university courses or permission of the instructor.

## HIST 2203 World War One

This course examines the origins, progress and consequences of World War One. Topics include the causes of the war, the opening moves of 1914, the battles of attrition, trench warfare, the war at sea and in the air, the global influence of the war, the evolution of strategy and tactics and the impact of new weapons. Prerequisite: 3oh of university courses or permission of the instructor.

## HIST 2213 World War Two

This course examines the origins, progress and consequences of World War Two. While strategy and battlefield tactics form a major focus of the course, other topics such as the Holocaust, the air war, the war at sea, resistance and collaboration are also covered. Prerequisite: 3oh of university courses or permission of the instructor.

## HIST 2243 Tradition and Modernity in Southeast Asia 1

A cultural and political history from the "golden age" of Angkor, and other early kingdoms, to the beginning of the colonial era. The influence of the powerful external cultures, of India and China, the rise of Theravada Buddhism and later advent of Islam in the region are emphasized. Prerequisite: 3oh of university courses or permission of the instructor.

## HIST 2253 Tradition and Modernity in Southeast Asia 2

The political and cultural history of the region from the colonial period to modern times including WW II, the Vietnam War, and the continuing impact of such contemporary challenges, as globalization, secularization, and religious fundamentalism. Prerequisite: 3oh of university courses or permission of the instructor.

## HIST 2263 Canadian Women's History

A thematic survey of the history of women in Canada from Contact to the present. Special attention will be given to the diversity of women's cultures, the changing roles of women in industrial society, and efforts by women to achieve economic, political and social equality. Prerequisite: 3oh of university courses or permission of the instructor.

## HIST 2283 Environmental History

This course investigates the relationships between humans and their environment, and how and why these relationships have changed over time. Topics of study include: theoretical and methodological approaches to environmental history; differing conceptions of the environment; the impact of industrialization; the spread of settlement, and resource exploitation; the changing nature of environmentalism; and new directions. Prerequisite: 3oh of university courses or permission of the instructor.

## HIST 2303 America and the Age of Revolution

A series of revolutions rocked the eighteenth-century Atlantic World and transformed western society. This course explores those revolutions and the social and cultural forces that produced them. We focus on the American Revolution and its impact on the Caribbean and Latin America, where slave uprisings and national liberation movements challenged European colonial control. Prerequisite: 3oh of university courses or permission of the instructor.

## HIST 2313 The Dilemma of Modern America

This course examines the American encounter with industrialization, imperial expansion, popular culture, and movements for social reform. Covering the 1880 s to the early 21st century, students will consider the tensions between the protection of democratic freedom and the emergence of the United States as a superpower. Our examination of the American past will emphasize a comparative and international perspective. Prerequisite: 3oh of university courses or permission of the instructor.

## HIST 2343 Maritime Provinces to 1867

The history of the Maritime region of Canada from the sixteenth century to Confederation. Special emphasis is given to the peopling of the region by immigrant groups and their interaction with the Native people. The evolution of the social, political, economic and religious institutions to 1867 is examined. No prerequisite

## HIST 2353 Maritime Provinces Since 1867

The development of Nova Scotia, New Brunswick and Prince Edward Island in the postConfederation period. Maritime adjustment to political union and its role within Confederation will be examined. Special emphasis will be placed on social, religious, economic and political trends, and the issues of ethnic assimilation and survival will be addressed. No prerequisite.

## HIST 2393 Latin America

The colonial policy of Spain and Portugal in the New World; the development of colonial society and the struggle for independence. Emphasis will be placed upon the major political and social problems encountered by the people of Mexico, Argentina, Brazil, and Chile since the early nineteenth century. Prerequisite: 3oh of university courses or permission of the instructor.

## HIST 2403 Capital and Labour in Canada

Selected topics in the history of Canadian business and labour, including the emergence of industrial capitalism and the Canadian working class. Special emphasis will be placed on advances in industrial production, the organization of capital and workers' responses to these developments. Prerequisite: 3oh of university courses or permission of the instructor.

## HIST 2463 Youth Culture in Canada Since 1918

This course will explore the changing nature of youth culture in Canada since the end of the First World War. Specific emphasis will be placed on the roles played by popular entertainment, the automobile, universities, alcohol and narcotics in shaping the world of Canadian youth. Prerequisite: 30h of university courses or permission of the instructor.

## HIST 2483 Selected Topics in Canadian-American Relations

Areas of study include military (impact of the American Revolution, Civil War, World Wars, and the war in Vietnam), economic (branch plants, NAFTA, fresh water, crossborder shopping), and social and cultural influences (media, sports, music). Prerequisite: 3oh of university courses or permission of the instructor.

## HIST 2493 Canadian History on Film

This course explores Canadian film-making over the past century with a focus on the representation of Canadian history through documentary and feature films. Prerequisite: 30h of university courses or permission of the instructor.

## History 2503, Slavery and Freedom in the Age of Lincoln

The defining moment of the American experience in the 19th century was the Civil War. Examining the emergence of slavery as a social system, the changing nature of antebellum society, and the growing political dispute between the North and the South, this course will explore the revolutionary transformation produced by the struggle over slavery and freedom.

## HIST 2533 Medieval Europe: Fact not Fiction

King Arthur? Richard the Lionheart? Flat earth? Inquisition? Study the real stories of disaster and renewal. Learn about Germanic migrations, development of kingdoms, feudalism, urbanization, art, architecture, and learning. Discuss religious vitality and conflict as the Christian Church expanded, changed, and clashed with kingdoms, heretics, and other religions. Prerequisite: 3oh of university courses or permission of the instructor.

## HIST 2543 Introduction to Europe: Since 1500

European history surveyed from 1500 to the present. Topics include the rise of religious division; the impact of reason and revolution; the evolution of the European nation-state; the rise and fall of European cultural, economic, and political dominance globally; the division of the continent and the establishment of the federal "super-state" after 1945. Prerequisite: 3oh of university courses or permission of the instructor.

## HIST 2553 Educating Canadians

The origins and evolution of Canadian primary and secondary education. Topics to be explored include changing attitudes towards children, debates over curriculum and teaching methodologies, and the emergence of women as teachers. Prerequisite: 3oh or university courses or permission of the instructor.

## HIST 2563 Imperial China: Emperors, Concubines, Peasants

An introduction to Chinese civilization covering religious, cultural, intellectual and historical aspects from the age of Confucius until the 20th century. The focus is on change and continuity of ideas and institutions in traditional and early modern China. Prerequisite: 3oh or university courses or permission of the instructor.

## HIST 2593 History of Canada's First Nations

This survey course examines the cultures, economies and politics of Canada's indigenous peoples before and since the Contact period. Particular attention is paid to social structures, the impacts of contact and the resilience of aboriginal cultures within an industrialized, Western nation. Prerequisite: 3oh or university courses or permission of the instructor.

## HIST 2603 African Canadian Women's History

This course will examine how race, class, gender and geographic location have influenced the experience of African Canadian women over the past 400 years. The role played by African Canadian women in resistance to slavery and racial oppression, civil rights struggles, and the labour movement will be explored in light of their contributions to Black Canadian society and culture. Prerequisite: second year standing.

## HIST 2613 History of Medicine

This course examines the development of medicine from antiquity to the present. Among the major topics to be addressed: concepts of disease; social construction of the body; development of 'germ theory' and the growth of modern medical science; development of public health; histories of medical practitioners including physicians, midwives and nurses; history of medical institutions including hospitals, asylums and laboratories. Prerequisite: 30 h or university courses or permission of the instructor.

## HIST 2623 History of Science and Technology

A survey course introducing students to the major themes, episodes, controversies and key issues in the history of Western science from antiquity to the twentieth century. Areas that will be examined include: the relationship between religion and science; the place of humanity within a scientific universe and the interrelationship between science and technology and its impact on human societies. Prerequisite: 3oh or university courses or permission of the instructor.

## HIST 2633 The Practicing Historian

This course will use case studies and hands-on learning to introduce students to the variety of sources and approaches used by today's practicing historians. Oral history, public history, visual and material culture will all be included, along with an examination of a variety of more traditional ways that quantitative and qualitative data may be analyzed, interpreted, and disseminated by historians. Prerequisite: second year standing.

## HIST 2693 Special Topics

## HIST 2733 African Canadians in the Maritimes

For more than 400 years, African Canadians have made vital contributions to the economies and cultures of the Atlantic World. This course traces successive migrations of people of African descent to Maritime Canada, and explores strategies they developed to surmount challenges posed by slavery and colonialism, as well as issues arising from gender, class, labour and racial discrimination.

## HIST 2743 Feudal Japan: Peasants, Monks and Samurai

This course details the history of Japan from the rise of the Yamato State through to the Sengoku Period of the 16th century. Topics to be covered: Shinto and the national mythology; development of Japanese Buddhism; aristocratic ages of Heian and Nara; Kamakura and Ashikaga shogunates; and the emergence of a 'feudal' state in medieval Japan. Prerequisite: 30 or or university courses or permission of the instructor.

## HIST 2753 Africa and the World

An introduction to African history, investigating historical debates upon the significance of Africans in human cultural development, ancient and medieval civilizations, and modern global society and economy. Topics include ancient North Africa and Egypt, expansion of Niger-Congo and Bantu cultures, formation of Islamic Empires, and assessing Africa's place in the world during the Atlantic Slave Trade. No prerequisite.

## HIST 2773 Pre-Confederation Canada

An introduction to Canadian history focusing on Aboriginal societies, New France and British North America to 1867. in addition to general knowledge of Canadian history, students will be introduced to the variety of historical theories and methodologies that characterize the field. No prerequisite.

## HIST 2783 Canada Since 1867

A survey of Canadian history since Confederation, focusing on the political, economic, and social developments in the modern age. in addition to general knowledge of Canadian
history, students will be introduced to the variety of historical theories and methodologies that characterize the field. No prerequisite.

## HIST 3113 Tudor England, 1485-1603

Covers Tudor absolutism and the subservience of parliament; the English Reformation in all its aspects; social and economic problems caused by the growth in population, enclosures and inflation; England's involvement on the continent, in Scotland and in Ireland; England's emergence as a sea and colonial power; cultural-intellectual developments. Prerequisite: 12h History courses.

## HIST 3133 Stuart England, 1603-1714

Covers early Stuart absolutism; Commonwealth, Cromwell and the Protectorate; the restoration of the Stuarts and renewed confrontations over politics and religion; the Glorious Revolution and the supremacy of parliament; the last of the Stuarts, their continental wars and the emergence of England as a first rate power; cultural-intellectual developments. Prerequisite: 12h History courses.

## HIST 3143 Canada's Visual History

Photography, movies, art, and public spectacle have all been used to make, record, and commemorate the nation's history. This course will explore the history of visual media, and examine selected topics in Canadian history to consider ways visual media can be employed as historical sources. Prerequisite: 12h History courses and third-year standing.

## HIST 3163 Total War and Social Change, 1870-1945

This course examines the impact of war on society from 1870 to 1945 - the era of 'total war'. Lectures and discussion groups will focus on the manner in which total war impacts society and the extent to which war can serve as an agent for social change. Prerequisite: 12h History courses.

## HIST 3203 Unlocking the Archival Record

Through the application of preserving and making available archival collections in original and digital formats, this hands-on course examines archival principles and processes. It explores the purpose of record creation and the place of archives in society to gain an understanding of the role of documents within the educational setting and the context of heritage institutions and knowledge mobilization. Prerequisite: 12h History courses and third-year standing.

## HIST 3243 The Reformation in Europe

Beginning with discussions of the medieval church and humanism, this course focusses on religious complexity in Europe during the 16th century. It covers reform movements from various regions (Germany, Switzerland, France, the Low Countries and the British Isles) and the Catholic Reformation. Prerequisite: 12h History courses.

## HIST 3253 Society and Politics in France, 1789-1871

This course is designed to introduce students to the political, social and cultural history of France between 1789 and 1871. It explores the numerous political experiments and revolutions throughout the nineteenth century. Prerequisite: 12h History courses.

## HIST 3263 Society and Politics in Modern France

This course is designed to provide students with an exploration of the political and social changes which occurred in France between 1871 and 1968. Subjects and themes for examination include Bonapartism, imperialism, cultural life, anti-Semitism. The impact of the German occupation, France's role in the creation of the European community and the 1968 Revolution will also be covered. Prerequisite: 12h History courses.

## HIST 3273 Making Britain Modern: From The Industrial Revolution to World War I

An in-depth study of the transformation of Britain from the late 18 th century to the outbreak of the First World War. Topics and themes may include industrialization, social protest, democratization, emergence of modern mass politics, commercialization of popular culture, family, sexuality and Victorian social theory, as well as cultural and literary themes. Prerequisite: 12h History courses.

## HIST 3283 Comparative Revolutions and Wars 1

A comparative study of the revolutions and wars accompanying them during the early modern period in Britain and America. Includes analysis of various theories of revolution. Major revolutions to be studied include English and American revolutions. Prerequisite: 12h History courses.

## HIST 3293 Comparative Revolutions and Wars 2

A comparative study of the revolutions and wars accompanying them during the modern era. Includes analysis of various theories of revolution. Major revolutions to be studied include French and Russian revolutions. Prerequisite: 12h History courses.

## HIST 3323 Dissent and Conformity in Modern America

Rebellion and cultural dissent have defined the American experience, and not only in the 18th century. This course examines how individual and collective protest influenced modern American society as well as the reactions that it produced. From the mass movements of the 188 os to the era of McCarthyism, we will examine the impact of resistance and nonconformity on American life. Prerequisite: 12h History courses.

## HIST 3343 History of Federalism in Canada

This course examines the social and political contexts of the major debates about federalism in Canada. in a seminar format, students will apply a historical perspective to the crisis points in the relationship between Ottawa and the provinces since 1867. Prerequisite: 3oh university courses.

## HIST 3353 Travel, Leisure \& Sin in Canada

This course will explore selected topics in the history of leisure in Canada. These may include the history of tourism; folk games and organized sports; hunting and camping; arts and crafts; amateur theatricals; drinking, gambling, burlesque and the sex trades. Prerequisite: $12 h$ History courses and third year standing.

## HIST 3363 Nova Scotia Since 1867

The economic, social and political developments in Nova Scotia since Confederation. Special emphasis is given to the effects of North American industrialization and transcontinental political structures on the province and provincial movements designed to conform to the problems of regional disparity. Prerequisite: 3oh university courses.

## HIST 3373 Peopling of the Maritimes in The Eighteenth Century

A study of the development and interaction of the peoples who occupied the Maritime region in the eighteenth century. Special emphasis will be placed on the Acadians, the New England Planters, the Scots and the Loyalists, and the relationship of these groups with the Native peoples. Prerequisite: 3oh university courses.

## HIST 3383 Canadian Environmental History

A study of the environmental history of Canada. Themes to be covered range from the way in which the Canadian environment shaped the history of human settlement in the country's various regions through to the effects of industrialisation on the Canadian environment. Prerequisite: 12h History courses.

## HIST 3393 Women and Gender in Canadian History

An in-depth examination of selected topics in Women's and Gender history in the Canadian context. Topics may include paid and unpaid work, health, parenthood, feminism, sexuality, social welfare, immigrant women, Native women, relations to the state, the military, popular culture and education. Prerequisite: 12h of History courses, including HIST 2263 or permission of the instructor.

## HIST 3403 Cosmopolitan America: Cultural and Political Currents in the Modernist Era

The years between 1900 and 1940 were some of the tumultuous and transformative in the nation's history. From cultural experimentation in the Greenwich Village to political mobilization in the streets of Chicago, Americans forged a new reality that both reflected and contributed to international developments. This course highlights the connections between Paris, London, and New York in the interwar years.

## HIST 3413 Modern Japan, 1600-1945

This course examines Japanese history from the Tokugawa era (1600-1868) through to the end of the Pacific War. Topics to be covered include: samurai and chonin (townspeople) cultures; the political structure of the shogun's government (bakufu); the Meiji Restoration; the failure of Taisho democracy in the 1920s; and Japanese imperialism in Asia ending with the war in the Pacific, 1937-1945. Prerequisite: 12h History courses.

## HIST 3423 Race and Class in 2oth Century Africa

Racial and tribal categories informed political policies during the colonial era, yet as a result of changes brought about by colonial economies, new social and political groups and strategies emerged. The course will trace this important process and seek an understanding of its cultural and political consequences through a study of racial policy in Africa. No prerequisite.

## HIST 3443 Africa and European Imperialism, 1800-1960s

This course examines three phases of African history: Pre-colonial societies such as the Zulu; British; French; German imperialism and colonial rule; the rise of African independence movements in the twentieth century. Topics to be discussed include the Islamic states of north and west Africa; the slave trade; the `Scramble for Africa'; the Zulu and Boer Wars and African nationalism. Prerequisite: 12h History courses.

## HIST 3453 Islam and Nationalism in the Modern Middle East

During the 20th century Islamic and national revolutions swept the Middle East. Religious and ethnic identities underwent a radical transformation reflecting the impact of Western political thinking and social and economic change. The course will investigate Arab Nationalism, Zionism, and Islamism through the Arab-Israeli political crisis and the emergence of Islamist movements across the region. No prerequisite.

## HIST 3463 Russia: Tsarism to Stalinism

A detailed examination of the major themes of the late Tsarist and early Soviet periods. Topics addressed include the peasantry; pre-war industrialisation; the development of revolutionary thought; the impact of World War I; the Russian Revolution; the Russian Civil War; and the rise of Stalin and Stalinism. Prerequisite: 12h History courses.

## HIST 3473 Power and Statecraft, 1870-1945

Covers the diplomatic history of Europe from the unification of Germany to the end of the Second World War. Particular emphasis will be placed on the origins of wars. The rise of non-European powers and the decline of Europe as the centre of global power will also be stressed. Prerequisite: 12h History courses.

## HIST 3483 Russia: Stalinism to The New Autocracy

A detailed examination of the rise and fall of the USSR as a superpower and the system that replaced it. Topics addressed include the nature of Soviet power; post-Stalin politics and culture; the degeneration and collapse of the USSR; the legacy of Soviet rule; and the state system that succeeded it. Prerequisite: 12h History courses.

## HIST 3493 American Women and Social Reform

This course examines the experience of women in movements for social change.
Emphasizing the early 20th century, it explores women's activism in a range of social movements, including the drive to end lynching and expand civil liberties. Particular attention is paid to the experience of American women in the movement for working-class democracy and racial equality in the 1930s. Prerequisite: 12h History courses.

## HIST 3503 Germany Since 1870

Follows the turbulent path of German history since 1870. Topics include Bismarck and the Imperial era, the impact of the First World War, the Weimar Republic, the Nazi years, post-war Germany to unification. Prerequisite: $12 h$ History courses.

## HIST 3533 Canadian Social and Cultural History

A seminar course that explores topics in Canadian social and cultural history. Topics may include family formation, working conditions, community development and popular culture. Prerequisite: 3oh university courses.

## HIST 3543 Power and Prestige in Medieval Europe

What was the nature of power and prestige in medieval Europe? How did these concepts differ? Who held authority and why? Kings, Queens, Popes, Saints, Merchants? Topics covered may include: regional variation; strength of the Church and its representatives; gender differences; knights and monarchs; landscape of power; and material representations of power. Prerequisite: 12h History courses.

## HIST 3553 The American Century: United States and The World

From an isolationist republic in the nineteenth century, the United States emerged as the dominant power of the twentieth century. From war to anti-terrorism to the media, the United States continues to shape our world. Looking at American wars, counterinsurgency, and diplomacy, this course will examine how that happened and its implications for the present. Prerequisite: 12h History courses.

## HIST 3563 Modern China: Opium Wars to Tiananmen

An analysis of the changes China has experienced since the mid-19th century. Emphasis is on the collapse of traditional order and the search for new political, social and cultural forms. Prerequisite: 12h History courses.

## HIST 3573 Guerrillas and Gunships: Warfare Since 1945

The nature of warfare has changed dramatically since 1945. Civil wars have largely replaced wars between states. Non-conventional warfare takes precedence over conventional warfare. New technologies have made warfare more destructive. The authority of the state in the conduct of organized violence is being challenged by liberation movements, terrorists and insurgencies. This course explores the reasons behind these developments. Prerequisite: 12h History courses.

## HIST 3583 Anglo-Saxon England

A study of the development of England in the early medieval period, from the fall of Rome to the coming of the Normans. Through an examination of the available evidence, both written and archaeological, we will explore topics such as Germanic and Viking invasions, paganism, the flourishing of Christianity, artistic achievement, and kingdom formation. Prerequisite: 12h History courses.

## HIST 3593 The Vikings and Their World

The people of Scandinavia, living between 780 and 1100, are often referred to as Vikings, but who were they really? Warriors with horned helmets? Misunderstood farmers and traders? Democratic poets? This course presents an interdisciplinary and balanced view of the Vikings and their culture, society and journeys of exploration, commerce, settlement and conquest. Prerequisite: 12h History courses.

## HIST 3603 The American Age of Insecurity

Following a period of unprecedented economic expansion that lasted from the Second World War until the 1970s, the United States entered an era of contraction and crisis that continues to the present. Using film, literature, music, and the latest scholarship, this course will explore the American experience of uncertainty and its relationship to the wider world. No prerequisite.

## HIST 3613 Canadian Immigration History

From first contact, Canada has been peopled by diverse groups of newcomers whose expectations of their new land were often at odds with their settlement experience. This course looks at a variety of immigrant groups, examining their efforts to settle here, and ways 'Canadian' society and culture were transformed by their presence. Prerequisite: 12 h History courses and third year standing.

## HIST 3623 Cold War Canada: At Home in Suburbia

This course will explore the domestic experience of Canadians during the Cold War period, and the political, social, gender, and sexual history of post-war Canadian society. Topics include the baby boom, suburban development, ethnic diversity, changes in family relationships and sexual attitudes, youth culture and mass media. Prerequisite: 12 h History courses and third year standing.

## HIST 3633 Hollywood and The American Imagination, 1930-196o

Although designed to entertain, American Film has provided a mirror of American popular culture and a medium for social commentary since the 1920s. Exploring these multiple functions, this course considers the changing interpretation of democracy, individual freedom, and economic opportunity in the nation's experience. The representation of women in film and the experience of women in Hollywood receive special emphasis. May be taken for Women's and Gender Studies credit. Prerequisite: 12 h History courses.

## HIST 3643 History of European Men, Masculinity and Gender from The Middle Ages to 1800

An investigation of how masculinity and gender have shaped European society. A consideration of what is meant to be a man and to what extent the idea of masculinity changed in European history. An examination of topics such as sexuality, honours, warfare, education, religion, household and court life and local government. Prerequisite: 12h History courses.

## HIST 3653 America and the 1960s: History and Legacy

No other decade has seen as fundamental a transformation of American society as the 1960s. in this period alone, Americans witnessed the end of legal segregation, the beginning of a devastating war in Vietnam, and a successful lunar landing. Students will explore this period and consider the way in which memories of the 1960 s influence the United States today. Prerequisite: 12h History courses.

## HIST 3663 Law and Punishment in Canada Before 1900

This seminar course explores laws and punishments in Canada prior to the creation of a modern criminal code. Though civil law is considered, readings and discussions will focus on criminal law as it was understood and practiced by Canada's First Nations, the British
and French Empires, and the young nation of Canada. Prerequisite: 3oh university courses.

## HIST 3673 Canadian Working-Class Culture

Seminar course on Canadian working-class culture from 1830 to 1980 . Topics may include race, gender, sexuality, art, food and drink and rituals. Prerequisite: 3oh university courses.

## HIST 3683 History of Religion in Canada

Topics include the development of religious denominations, the impact of religion on social concepts, the issue of church-state relations, the role of religion in educational development, and the influence of religious pluralism on Canadian society. Prerequisite: 12h History courses including HIST 2773 or HIST 2783.

## HIST 3693 Special Topics

See department for details.

## HIST 3713 Medieval Europe Through Material Culture

Learn the history of medieval Europe through art, architecture and archaeology. Study culture through manuscript illumination, metal-working, stained glass, and sculpture; secular and ecclesiastical architecture; settlement, burial and landscape archaeology. Topics may include cross-cultural contacts, regional variation, stylistic changes, social structure, religions, preservation and conservation. Prerequisite: 12h History courses, including HIST 2533.

## HIST 3723 The Renaissance

The transition from late medieval to early modern society. Focusing on Italy, this course covers topics such as the Classical Revival and Humanism, Economic Advances, the Plague Renaissance Art and Architecture, the Italian City-States, the Great Western Schism and the Conciliar Movement, as well as the impact of the Italian Renaissance outside of Italy. Prerequisite: 12h History courses.

## HIST 3733 History of Museums and Collecting

This course will explore the history of museums and collecting from a global perspective, focusing on the following core questions: Why were museums created? How do they function in society today? What are some challenges facing museums? Topics may include: national identity, architecture, repatriation, ethics of collecting and display, the public and education. Prerequisite: 12h History courses.

## HIST 3743 Oceans \& Empires - North Pacific

A study of imperialism in Manchuria, Korea, Japan, Siberia, Alaska, and elsewhere in the North Pacific. The central theme is the convergence of peoples, cultures, and empires between the sixteenth and eighteenth centuries. Topics include Europeans in Northeast Asia, Russian development of Siberia, Japanese colonialism, and US western expansion by land and sea. Prerequisite: 12h History courses Antirequisite: Credit cannot be obtained for both HIST 3743 and HIST 3416.

## HIST 3823 Global History of Communism

This course surveys the history of communism from its origins in revolutionary France through the emergence of classical Marxism, to the Russian and Chinese revolutions and the spread of communism across one third of the globe's population on four continents. The history of communism as an idea will be considered alongside the reality of life for millions under Communism. No prerequisite.

## Special Periods

In these courses a limited field is chosen for intensive study. At least one survey course in the chosen field is a prerequisite. All 4000-level seminars are normally open only to Honours students in History and History majors with a GPA of 3 or better.
HIST 4113 Topics: Europe to 1815
HIST 4173 Topics: Asian History
HIST 4213 Topics: Europe Since 1815
HIST 4223 Topics: Global History
HIST 4313 Topics: Colonial America
HIST 4323 Topics: American History
HIST 4343 Topics: Canadian History
HIST 4903 Historiography
HIST 4233 Special Topics

## HIST 4996 Honours Thesis

The thesis is the most important component of the honours program. It provides the student with the opportunity to contribute to historical knowledge through original research.

## INTERDISCIPLINARY STUDIES

IDST 1103 Hypermedia Theory and Practice
in this course students will be introduced to the history behind and the theories that underlie networked communication and hypertextual practice. Students can expect to study the history of the internet and its corollary technologies, theories of typography, colour, and image, and to employ what they learn in practical applications.

## IDST 1106 Hypermedia in the Humanities

Students draw upon a variety of digital resources to create HTML projects incorporating many different media. in addition to classes taught by members of the Departments of English, History \& Classics, and Philosophy, students will receive instruction in Information Literacy from Faculty Librarians, and instruction in the use of applicable software from AITT.

## IDST 1113 Peoples and Cultures of Asia 1

An introduction to Asia in the modern era from geopolitical, religious, historical, social and cultural perspectives. It seeks to understand the ways of thinking found in South, Southeast and East Asia, the basic role of tradition in society, and the current challenges that confront this half of the world. May be offered for major credit in history.

## IDST 1123 Peoples and Cultures of Asia 2

An introduction to Asia in the modern era from geopolitical, religious, historical, social and cultural perspectives. It seeks to understand the ways of thinking found in South, Southeast and East Asia, the basic role of tradition in society, and the current challenges that confront this half of the world. May be offered for major credit in history.

## IDST 1213 The African Canadian Experience: Past and Present

Spanning 400 years of the African presence in Canada, this course explores how Africandescended peoples have resisted slavery and racial oppression, and the political, social, economic, gender, class and other factors that have influenced their experience. Through lectures, field trips and hands-on workshops, students learn how African Canadians have contributed to the building of this nation, and the global diaspora. Cross-coded with HIST 1913. Antirequisite: Credit cannot be obtained for both IDST 1213 and HIST 1913.

## IDST 1223 The Indigenous Experience: Past and Present

With the advisory participation of the Black-Indigenous Community Education Initiative (BICE), this course surveys the aboriginal experience across Canada from pre-contact to contemporary times. Special emphasis is placed on particular aspects of the experience of the Mi'kmaq and Maliseet First Nations.

## IDST 1503 Popular Culture and You

A transdisciplinary team-taught course designed to encourage critical thinking about popular culture, society and the role of the individual, focusing on the representation of race, gender, and sexuality in the popular media of music, film, literature (including graphic novels) and video games. This course may be counted as a 3 h elective credit in Music.

## IDST 1603 Human and Environmental Diversity

A transdisciplinary team-taught course designed to introduce students to the global, national and regional importance of interrelations between human and environmental diversity. Students will consider issues such as social and environmental justice, challenges to biodiversity and cultural diversity, practical options to preserve, deepen and expand human and environmental diversity, as involving a wide range of factors, from geography to genetics. This course may be counted as a 3 h elective credit in Sociology or Biology.

## IDST 1703 A Guided Tour of Our Universe

A transdisciplinary team-taught course designed to help students develop a scientific view of the universe as the place we live in. Students will study the night sky, evolution of scientific methods, influence of astronomy on popular culture, the precondition for life, the structure and fate of the universe, and examine its historical and fictive depiction in literature and popular media. This course may be counted as a 3 h elective credit in Physics or Recreation Management or Kinesiology. Antirequisite: Credit cannot be obtained for both IDST 1703 and PHYS 1513.

## IDST 1513 Self-Identification: Narrative, Play and Performance

A transdisciplinary team-taught course designed to recognize reading, gaming and acting as activities that can be used to construct, reflect, and interrogate our individual, communal and cultural selves. Students will read and reflect on written narratives, design and play through digital narratives and gamespaces, and explore the possibilities and consequences of role-playing and live performance. This course may be counted as a 3 h elective credit in English or Recreation Management or Kinesiology.

## IDST 1613 Perspectives on Climate Change

A transdisciplinary team-taught course designed to examine from the perspectives of science, economy, culture, and community, the dimensions of climate change as a global issue: its causes, potential impacts, ways to mitigate, and ways to adapt. Students will learn the science behind climate change, the economics of tackling it, and the potential for positive outcomes by managing it properly. This course may be counted as a 3 h elective credit in Business or Geology.

## IDST 1713 From The Trojan War to the War on Terror: The Motives and Ethics of War

A transdisciplinary team-taught course designed to engage students in an investigation of the motives and ethics of war from historical, biological, and psychological perspectives, using case studies to develop a template of the motives that lead to war and to formulate a set of ethical principles that should govern and prevent war. Sources range from ancient Greek epic to modern film documentaries. This course may be counted as a 3 h elective or major credit in Classics or 3 h elective credit in Biology.

## IDST 2063 World Music

A survey of folk music from around the world involving basic analysis of musical sounds in their social context. Musical analysis will be conducted primarily on an aural basis. Previous knowledge of musical theory or practice is not required. May be offered for credit in music.

## IDST 2213/2223 Peace Studies

These courses aim to give students a better general understanding of the dynamics of conflict and peace. They attempt to sensitize students to the different dimensions of conflict and peace, of their causes and effects, and of the obstacles and opportunities for meaningful change in the contemporary world. These courses may be taken for political science credit.

## IDST 2253 Organized Labour in Canada

A social history approach to the origins and development of the Canadian labour movement emphasizing the involvement of labour in social and political transformation. A primary focus is on the social history of organized labour in Nova Scotia. This course may be offered for major credit in sociology. Prerequisite: second-year standing.

IDST 2423 Nineteenth and Twentieth Century World Literatures
Realism, naturalism, and symbolism in prose fiction from 1850 to 1950.

## IDST 2433 Epic Tradition 1

A study of the epic tradition in ancient, classical, and medieval literature. Particular attention will be given to aspects of heroism and the quest theme. May be offered for major credit in classics and English.

## IDST 2453 Epic Tradition 3

A study of how the epic tradition is deployed in support of and in the context of Reformation Christianity, the rise of national identities, and the rise of individualism. May be offered for major credit in English.

## IDST 2503 Perspectives on Canada 1

A multi-disciplinary course designed to introduce students to themes in Canadian society and familiarize them with the methodologies of the social sciences. The focus is on the historical, economic, political and social contours of contemporary Canada. May be offered for major credit in history.

## IDST 2513 Perspectives on Canada 2

A multi-disciplinary course designed to introduce students to themes in Canadian culture and familiarize them with the methodologies of the humanities. The focus is on the Canadian identity and the many forms in which it has been expressed. May be offered for major credit in history.

## IDST 2706 Interdisciplinary Enterprise Project

This course provides students the opportunity to examine entrepreneurial behaviour from a theoretical and practical perspective through situated learning. Teams of students from a variety of disciplines will undertake a project requiring risk taking, creativity, decisionmaking/problem solving, team work, experiential learning and project evaluation. These experiences will be considered and reflected upon in relation to the theoretical underpinnings appropriate to the nature of the project. This course is administered by a committee comprised of faculty members from differing disciplines. Prerequisite: permission of the committee.

## IDST 2813 Civilization in South Asia 1

The unique spiritual and cultural resources of India and their impact on South Asian history, philosophy, art and social structures from the Vedic period to the beginning of the Common Era. Specific attention is paid to the development of a traditional Indian worldview based on Hindu, Buddhist and Jain teachings. May be offered for major credit in history.

## IDST 2823 Civilization in South Asia 2

The great flowering of Hindu Indian civilization associated with the first seven centuries of the Common Era was radically challenged with the introduction of Islam and the colonial era. Focus is on the Islamic contribution to Indian civilization, the impact of the British period and the formation of Pakistan, Sri Lanka and Bangladesh in post- colonial South Asia. May be offered for major credit in history.

## IDST 3103 Environmental Law

An historical review of property law concepts and an examination of the legal principles associated with environmental law, including a review of the rights, obligations, claims, defenses and remedies of conflicting environmental interests. May be offered for major credit in political science. Prerequisite: third year standing.

## IDST 3123 Family Law

A study of the family in Canadian society from the legal perspective. Topics covered include children and the law, custodial issues, divorce and separation, family property, family violence, protection for the elderly, reproduction and the law, and an examination of the family court system and current trends in family law. May be offered for major credit in political science and sociology. Prerequisite: third year standing.

## IDST 3173 Introduction to Recording Studio

Introduction to the principles of sound recording, including acoustics and psychoacoustics. Recording equipment, from microphones, signal processing and consoles, to analog and digital audio systems. Pre-production, production and postproduction, including editing, and master tape/CD preparation. The course includes practical work in the Acadia digital recording studio. Prerequisite: MUSI 2173 with C- or better.

## IDST 3183 Applied Recording

Practical applications of live recording on stage and in the recording studio. Includes creative work and exposure to professional recording artists and institutions.
Prerequisite: IDST 3173 with C- or better.

## IDST 3213 Sustainable Nova Scotia

Through experiential learning, this course explores the global issues of sustainability through a local focus on Nova Scotia. Students and professors from across the university work together on local projects that address complex environmental, economic, social, and political issues. Students enroll in the discipline of their choice (within class size limit), and will be assigned to work on one project. Prerequisite: third or fourth year standing.

## IDST 3463 Contemporary Perspectives on French, German and Spanish Literatures and Cultures

A multi-disciplinary course to offer students a basic knowledge of literary and cultural periods/events of universal importance in these three target languages. The course will be offered in English. Students wishing to have this course count towards a major degree in the Department of Languages and Literatures will be required to write their assignments and essays in the language in which they major.

## IDST 3613 Health and Wellness in Nova Scotia

Professors from across the campus lead students through analyses of the complex global issues of health and wellness, while drawing substantially on a local, multidisciplinary focus on the state of health and wellness of Nova Scotians. Lectures featuring professors and other regional experts are combined with small group projects focused on current health and wellness issues, to present the complex physical, social-psychological, spiritual, economic, educational, environmental and political issues associated with holistic health and wellness.

## IDST 3473 Introduction to Contemporary French, German and Spanish Film

 A multi-disciplinary course covering developments in French, German and Spanish film as well as the theories shaping them, with a focus on literary adaptations. The course will be offered in English. Students wishing to count this course towards a major in a language will be required to write their assignments and essays in the language of that major.
## IDST 4173 Digital Media Production

This course examines the use of digital media in a variety of delivery formats: World Wide Web, CD-ROM, DVD, VHS; it includes the creation of digital media: audio, video and still; and includes: compression technology, conversion of analogue to digital formats, visual composition, including manipulating photographs, production design and media management, and cross-platform production. Students will be introduced to Photoshop, Media 100, Final Cut Pro, After Effects, and Media Cleaner Pro. Prerequisite: MUSI 2173, 3163, IDST 3173, 3183, and permission of the school.

## IDST 4186 Peacekeeping: Critical Perspectives

This course examines all the elements of modern peacekeeping from consolidating security to ensuring good governance and promoting economic rehabilitation. It also looks at the major players involved on both the military and civilian sides including NGOs and presents a series of case studies of peacekeeping missions. May be offered for credit in political science.

## IDST 4973 Music Technology Apprenticeship

Music technology majors are required to serve a minimum of 150 hours of music technology related activities on campus. This course significantly enhances exposure to professional applications in chosen fields of exposure. Projects are coordinated and credited via electronic logbook portfolio by the director of the Acadia digital recording studio. Course credit can be accumulated over a period of more than one academic year.

## IDST 4996 Honours Thesis

## KINESIOLOGY

## KINE 1013 FOUNDATIONS

This course is designed to provide students with an understanding of the depth and breadth of the field of Kinesiology and its sub-disciplines, and provides foundational knowledge of kinesiology, sport and physical activity. Prerequisite: BKIN students only.

## KINE 1100 First Aid and CPR

Standard First Aid and CPR level C or an approved equivalent must be completed prior to the second year of study. Students must provide a copy of the valid certification to the school by April of their first year in the program.

KINE 1113 Research Methods in Kinesiology
An overview of the role of research, various research themes and methodologies in kinesiology. Various applications of research findings will be examined. Prerequisite: KINE 1013.

KINE 1213 Growth and Motor Development
A study of the sequential changes and characteristics of physical growth and motor development related to physical activity. Attention will focus on sequential motor patterns, individual differences across the lifespan; factors affecting and measurement of physical growth and motor development. (1.5h lab).

KINE 1243 Historical Aspects of Physical Activity and Sport in Canada An examination of the place of physical activity and sport in Canadian history. Prerequisite: KINE 1013.

## KINE 1333 Care and Prevention of Athletic Injuries

An introduction to the prevention and recognition of injuries from accidents in athletic activities. Analysis of the incidence of these athletic injuries, assessment techniques, support methods and medicolegal implications are discussed. Laboratory work includes the injury evaluation procedures, basic taping and therapy methods. (1.5 h lab biweekly) Prerequisite: BKIN students only, KINE 1413; Antirequisite: Credit cannot be obtained for both KINE 1333 and KINE 2023.

## KINE 1413 Applied Human Anatomy

This course examines the structures of the human body from cell to systems, with a particular emphasis on those responsible for movement. The musculoskeletal structures, including bones, joints and muscles, along with the nervous and cardiovascular systems are emphasized. The respiratory, renal and reproductive systems are also introduced. (1h lab) Prerequisite: KINE 1013.

## KINE 1993 PHYSICALLY ACTIVE LIVING

An introductory level course covering basic concepts related to exercise, fitness, and health. Will include exercise myths, risks, benefits and choices as related to physically active lifestyles and the development of personal wellness. This course cannot be counted as credit toward the BKIN degree. Antirequisite: Credit cannot be obtained for both KINE 1993 and KINE 2293.

## KINE 2003 Adapted Physical Activity

A study of various physical and mental conditions that require adaptation to meet the individual needs of participants. Includes the knowledge, skill, understanding and appreciation needed by regular kinesiologists to cope with the increasing range of individual differences found in the general population. Prerequisite: BKIN students, second year standing and higher

## KINE 2033 Biomechanics 1

An introduction to the biomechanics of human movement, including kinematics and kinetics of the musculoskeletal system and mechanics of muscle contraction. Practical examples from sport, rehabilitation and the workplace will be discussed. The lab component will demonstrate these concepts and introduce methods used to quantify the mechanical aspect of human motion. (3h lab) Prerequisite: KINE 1213 and KINE 1413.

## KINE 2133 COACHING

An examination of the principles of coaching as they relate to the overall development of the athlete. Course content is taken directly from the NCCP Introduction to Competition manuals, although the breadth of material covered will surpass the expectations set by the NCCP. Prerequisite: BKIN students with second year standing or permission from the school.

KINE 2253 Sociological Aspects of Physical Activity and Sport
This course is designed to provide a sound introduction to the sociology of sport and physical activity. Students are encouraged to question and think critically about sport and
physical activity as part of society from both individual and group perspectives.
Prerequisite: BKIN students only, second year standing.

## KINE 2413 Applied Human Physiology 1

An introduction to human physiology for kinesiology students. This course covers basic physiological concepts including cell physiology and focuses primarily on neuromuscular physiology, with an introduction to metabolism, gastrointestinal, integument, and endocrine physiology. Homeostasis and sensory control of movement are explored. Anatomical and physiological changes over the lifespan will be introduced. The focus of the physiology courses is on physical activity and the implications to health and wellbeing. (1.5h lab) Prerequisite: KINE 1100, KINE 1413, BIOL 1863 or BIOL 1823.

## KINE 2423 Applied Human Physiology 2

An introduction to human physiology for kinesiology students. This course covers primarily cardiovascular and respiratory physiology with introduction to support systems (acid-base regulation, renal, gastrointestinal, immune and reproductive systems). Anatomical and physiological changes over the lifespan will also be covered. (1.5h lab)
Prerequisite: KINE 2413.

## KINE 2433 Psychological Aspects of Physical Activity and Sport

An examination of the primary psychological aspects important in understanding physical activity participation and sport performance. This course will focus on the role of theory in effectively promoting physical activity and exercise. The course will examine psychological factors that affect and are affected by participation in physical activity and sport, social influences on participation, as well as psychological techniques to enhance participation. Prerequisite: KINE 1013 and second year standing.

## KINE 2493 Health Promotion and Wellness

Students will be exposed to a wide range of health and wellness issues. Students will examine their attitudes toward these issues with an emphasis on self-responsibility, and will be prepared to design and implement health promotion programs. Prerequisites: BKIN majors and BSN (NUTR) majors only; second year standing.

## KINE 3013 Exercise Physiology

This course surveys the physiological events associated with exercise, training and detraining; the neuromuscular, cardiovascular and respiratory systems are considered. Through lectures and problem based learning activities, topics including thermal stress, altitude, aging, pregnancy, obesity, microgravity, ergogenic aids, and exercise as medicine are explored. (1.5h lab) Prerequisite: KINE 1013, KINE 1100, KINE 2423.

## KINE 3100 Professional Development

Professional Development is divided into two units. The "A" unit includes one 6-hour minimum conference and the completion of a two-page reflection. The "B" unit includes two 1 hour seminars with the completion of a half-page reflection for both seminars. Students are required to complete "A" and "B". Permission from the School must be obtained prior to attendance.

## KINE 3133 Leadership and Team Building

This course examines selected theories of leadership and principles of team building. Students have an opportunity to consider the application of leadership theories and hence to develop an understanding of themselves as leaders. Prerequisites: BKIN majors; third year standing.

KINE 3143 Introduction to Teaching Physical Education
An overview of effective teaching styles, management skills and content required to present kinesiological concepts within a school setting. Micro teaching settings will be an integral part of this course.

## KINE 3163 Applied Research Methods in Kinesiology

The nature of scientific inquiry, research methods applied to the study of physical activity and sport, data analysis and research report writing. Prerequisite: KINE 1113 and permission of school.

## KINE 3213 Motor Learning

An introductory examination of motor skill acquisition; focus on the variables of practice, theories of skill acquisition, feedback, information processing, retention, and transfer, which influence the instruction, learning and performance of motor skills in sport and physical activity programs. (1.5h lab) Prerequisite: KINE 1013 and third year standing.

## KINE 3343 Fitness Programming

The nature, fitness levels and related behaviours of Canadians. Basic fitness assessment and current trends for fitness programming techniques will be addressed in generally healthy individuals with modifications for a variety of special populations. The course content applies to achieving certification as a personal trainer (CSEP-CPT). (1.5h lab) Prerequisite: KINE 2423 or permission of the School.

## KINE 3363 Philosophical Aspects of Physical Activity and Sport

This course will introduce students to the issues surrounding physical activity, sport and physical education from a philosophical perspective with an emphasis on the ethical considerations involved. Prerequisite: KINE 1013 and third year standing.

## KINE 3373 Children with Special Needs

Introduces assessment techniques and the development of individualized perceptual and motor activity programs. Also examines the effects of one to one instruction on the selfesteem and achievement level of children with special needs. Practicum in S.M.I.L.E. program is required. Prerequisite: BKIN students; second year standing or better.

## KINE 3393 Physiological Assessment

Field and laboratory techniques for fitness testing, interpretation and counseling across the spectrum from health to high performance and in chronic disease. Major emphasis is on methods for health evaluation, athlete performance and functional fitness and test protocols for endurance, strength, power, flexibility and anthropometry. The course features a blend of theory and practice. Students can apply this information to advanced fitness appraisal and prescription certifications. (3h lab) Prerequisites: KINE 3013, KINE 3343 or permission from the school. Antirequisite: Credit cannot be obtained for both KINE 3393 and KINE 4333.

## KINE 3413 Assessment of Athletic Injuries - Lower Extremity

Concepts of orthopedic assessment of different joints are presented. Through systematic musculoskeletal testing, students acquire skills to assess tissue limitations, muscle weakness, and pain. This course focuses on the lower extremity (from toes to pelvis). A practicum allows students to work with varsity teams. Prerequisite: KINE 1333 and permission of the instructor.

## KINE 3423 Assessment of Athletic Injuries - Upper Extremity

Concepts of orthopedic assessment of different joints are presented. Through systematic musculoskeletal testing, students acquire skills to assess tissue limitations, muscle weakness, and pain. This course focuses on the upper extremity (from fingers to base of
lumbar spine). A practicum allows students to work with varsity teams. Prerequisite: KINE 3413 with a minimum grade of C-.

## KINE 3533 Advanced Coaching Methods

Explores in more depth the issues raised in KINE 2133, and in addition, focuses on concepts related to planning and implementing annual training programs for high performance athletes. Emphasis is on the coaching tasks related to mental preparation, physical preparation, and technical-tactical development for advanced athletes. Upon completion students may receive NCCP Level 3 Theory certification. Prerequisite: KINE 2133.

## KINE 3573 Perceptual-Motor Development

An in-depth study of perceptual and motor development in young children through examination of research and theory related to sensory-motor integration, and through a practical lab experience. Students will examine the behavioral signs, neurological bases and assessment of sensory integration dysfunction, as well as intervention activities to promote sensory integration and perceptual-motor development. (2h lab).

## KINE 3583 The Political Economy of Sport and Physical Activity

This course examines the roles of politics and economics in structuring the nature and distribution of sport and physical activity opportunities in Western societies; relationships between the growth of sport and physical activity industries and the roles assumed by different levels of government; and the implications of these for sport and physical activity participants.

## KINE 3663 Coaching Practicum 1

Each student works as an assistant to, and will be supervised by, a mentor coach. Corequisite: KINE 3533 and placement with a mentor coach.

## KINE 3683 Applied Sport Psychology

An examination of selected topics in human behaviour related to sport and sport participation. Areas of emphasis include sport personality, anxiety control and relaxation, mental imagery and visualization, competition preparation, goal setting, and attitudes and sport behaviour. Prerequisite: KINE 1113 or equivalent and KINE 2433.

## KINE 3693 Health Behaviour Change

This course draws on peer-reviewed research, real-world examples as well as commentary found in popular media to get students to think critically about the forces that shape health behaviour and engage in activities to help them understand how they can be effective in promoting health behaviour change.

## KINE 3853 Wellness and Aging

This course will examine aging from a wellness perspective - while the physical and physiological aspects of aging will predominate, social, emotional, spiritual and cultural aspects of aging will also be considered. The changes that occur as a function of the aging process will be the central focus of the course. Prerequisite: BKIN majors; third year standing.

KINE 3883 Directed Readings in Kinesiology
Readings and discussions in a selected area under the direction of a faculty member. Intended primarily for students in third and fourth year.

## KINE 4003 Ethical Issues in Sport \& Physical Activity

Ethical issues that arise in sport, physical activity and physical education will be investigated. A practical or applied rather than theoretical approach will be undertaken in the investigation of the issues. Prerequisite: Fourth year standing in Kinesiology

## KINE 4013 Training Methods

Methods used to enhance physiological performance in exercise. Training methods for endurance, strength, power, speed and flexibility, as well as general planning theory. Ergogenic aids to performance will also be examined; work enhancing diet manipulators (e.g. carbohydrate loading), drugs (e.g. steroids) and physiological interventions (e.g. blood doping) will be investigated. Information can be applied to advanced fitness prescription certifications (1.5h lab). Prerequisite: KINE 3013.

## KINE 4083 Independent Study

A substantial scholarly study chosen in consultation with a faculty advisor to reflect student interest. Such a study may be based on field, laboratory or library study. Intended primarily for qualified students with a defined and approved research interest.

## KINE 4193 Exercise and Training Practicum

This course provides students an opportunity to apply course material from this area of study in practical settings. Students will be expected to work in diverse situations weekly to develop skills around laboratory fitness testing, developing exercise programs and directing personal training opportunities. Students will also complete a self-directed study toward preparation of theoretical and practical competencies. Prerequisite: KINE 3343, and permission of the instructor.

## KINE 4213 Biomechanics of Injury and Disease

This course focuses on sporting injuries and chronic disease from a neuromuscular and biomechanical perspective. Orthopaedic biomechanics will be a central focus with an emphasis on joint replacement and other forms of surgical repair for injuries. Biological and mechanical properties unique to bone, cartilage, ligaments, tendons and muscle will also be introduced. Prerequisite: KINE 2033 or permission of the School.

## KINE 4223 Epidemiology and Physical Activity

Provides a foundation in epidemiology, public health and biostatistics. A particular emphasis will be placed on physical activity and chronic diseases. Students will be taught about various methods in epidemiological design and analysis; these will then be applied to health and health behaviour issues affecting today's society. Prerequisite: At least one course in research methods/statistics.

## KINE 4233 Stress Management

This course will provide students with the scientific foundations of stress and its effects, and will provide opportunities to reflect on personal stressors through self-study. Strategies to help manage stress will be reviewed. Prerequisite: KINE 2423 and 2433 or permission of the instructor.

## KINE 4293 Health Promotion and Wellness Practicum

This course will provide those students focusing on this area of study an opportunity to apply course material in a practical setting (in consultation with their advisor).
Placements will be recognized government, educational, or social service agencies, but may also be self-directed experiences, which are directly related to the field. Students will be expected to work in a number of situations on a weekly basis. Experiences will be recorded and discussed by the group. The practicum is supported by meetings, reading, and written papers. Prerequisite: KINE 3693 or permission of the instructor.

## KINE 4373 Neural Basis of Motor Control

in this course students will examine the neurophysiological aspects of human movement and motor control. Students will study anatomical structures in the peripheral and central nervous system involved in producing movement, examine how they are organized, and investigate how various cortical and subcortical structures interact to produce and sustain
coordinated movement. Students will also examine how these processes change with learning.

## KINE 4563 Adventure Education

This course will study and explore the use of adventure for educational purposes. By exploring philosophies, theory and methodology, students will design, deliver and participate in effective adventure education programs. The application of adventure education methodology as a tool for human resource development, curriculum enhancement and leisure satisfaction is examined. Prerequisite: third year standing in $B C D / B K I N$.

## KINE 4573 Biomechanics 2

Basic principles learned in KINE 2033 will be built on and applied to analyzing human movement problems in the areas of sport, rehabilitation and the work place. Methods in kinematic, kinetic and electromyographical data collection and analysis will be studied. Current topics in the biomechanical literature will be reviewed. (1.5 h lab) Prerequisite: KINE 2033.

## KINE 4593 Special Topics in Kinesiology

in depth study of a selected topic in the field. Designed to enable students to take advantage of a particular expertise of visiting or permanent faculty.

## KINE 4633 Senior Seminar

A capstone course designed to bridge the gap between university study and the workplace or further study. Classes and projects are designed to help you discover your uniqueness: your skills, values, and knowledge. The course aims also to provide information about further education, the profession, and about opportunities for new graduates. Prerequisites: BKIN students; fourth year standing and completion of a minimum 75 h.

## KINE 4693 Physical Activity and Chronic Conditions

The course examines the psychosocial, physiological and pharmacological considerations important to the promotion of physical activity among individuals living with chronic conditions (e.g., cardiac conditions, diabetes, arthritis, spinal cord injury). Course work is primarily student directed. Students are assessed on their ability to integrate information in summarizing the issues important for exercise promotion for each given population. Prerequisite: KINE 2423 and KINE 2433.

## KINE 4783 Body, Culture, Physical Activity and Sport

This course examines issues relevant to how sport and physical activity cultures impact identity, our understanding of and attitudes toward our own bodies and those of others. Emphasis is placed on using social theories to examine gender, race, sexuality, class, race, and disability. Students are expected to have successfully completed a previous course in sociology or sociological aspects of sport/physical activity. Prerequisite(s): Third or fourth year standing.

## KINE 4843 Principles of Sport Injury Rehabilitation

This course will present the principles of rehabilitation, including program design and evaluation. The use of therapeutic exercise and stretching, as well as infrared modalities, for the treatment of sports injuries will be discussed. Other issues relevant to recovery from injury will also be covered. (2h lab) Prerequisite: KINE 3413 or KINE 3423 with a minimum grade of $C$-.

## KINE 4853 Professional Issues in Sport Injury Rehabilitation

This course offers senior kinesiology students in the sport rehabilitation specialization further information on the basic concepts of administering a sports rehabilitation program and clinic including legal concerns and professional issues such as medical ethics and stress management. Prerequisite: KINE 3413 or KINE 3423 or KINE 4843 with a minimum grade of $C$ -

## KINE 4863 Emergency Conditions

A theoretical and scenario-based practical application of mock emergency conditions for first responders. Students are provided with knowledge and basic skills used to evaluate athletic injuries and special problems of head, neck, spine, viscera, and other orthopedic joints. Assessment, intervention, primary care treatment, and medical follow-up are all presented for a host of sport related injuries and illnesses. Prerequisite: KINE 1333.

## KINE 4873 Pharmacology for Kinesiology

This course reviews basic pharmacology principles and focuses on over-the-counter/prescription medications and natural products commonly used in sport and physical activity. Contraindications and doping principles are also reviewed. Pharmacodynamic and pharmokinetic principles are explored with implications for athletic therapists and exercise physiologists. Prerequisite: KINE 2423.

## KINE 4883 Sport, Media and Culture

This course examines the role that mass media play in representing sport and physical activity. It explores print and electronic broadcast media including an in-depth look at production, content, meaning, audiences, and the role of gender and other relevant social identities. Prerequisite: KINE 2253 or CODE 1543 or WGST 1413 or third year standing.

## KINE 4893 Disability Sport

The course provides various aspects of the theory of social constructionism as it relates to disability and sport. It provides an insight into the historical development of disability sport both nationally and internationally, and will identify sport governing bodies responsible for Paralympic, Special Olympics, and other sport movements. It explores inservice delivery of sport models in school and community.

## KINE 4996 Honours Thesis

This course requires the student to propose and carry out a research study under the supervision of a KINE faculty member and submit a thesis in accordance with the KINE format and University Honours Committee regulations. Both the proposal and the thesis must be successfully defended before the thesis supervisor and the KINE Honours Committee of Senate.

## KINE Activity Courses

Activity courses are 12 weeks of instruction and bear a credit value of 1.5 h .
Prerequisite: at least second year standing.

## Introductory Activity Courses

The focus is on acquiring basic skills in the sport or physical activity, learning the theoretical basis of performance, learning teaching progressions, and acquiring an appreciation of the sport or physical activity.

KINE 176D Outdoor Leader 1
KINE 177D Orienteering and Geocaching
KINE 178A Zumba
KINE 18oB Football 1
KINE 180D Intro to Adventure Programming

KINE 181A Hockey 1
KINE 181D Introduction to Off-Road Mountain Biking
KINE 182B Volleyball 1
KINE 182D Intro to Cross -Country Skiing
KINE 183B Racquetball/Squash
KINE 184B Badminton
KINE 184D Introduction to Canoe Tripping
KINE 185A Physical Activities for Children
KINE 185B Physical Activity for Older Adults
KINE 185D Special Topics 1 (Intro to Orienteering, Intro to Snowshoeing, Intro to Sea Kayak, Intro to Winter Camping, Intro to Rock Climbing)
Designed to enable students to take advantage of a particular expertise of visiting or permanent faculty

KINE 185H Kayaking
KINE 185J Power Skating
KINE 186A Basketball 1
KINE 187A Aquatics
KINE 188A Tennis
KINE 188B Event Management Practicum
KINE 189A Soccer 1
KINE 190A Physical Activity for Chronic Conditions
KINE 190B Resistance Training
KINE 190C Agility, Quickness, and Speed

## Advanced Activity Courses

To develop advanced technical and practical skill levels and the theoretical knowledge for coaching the sport or activity. Students require the appropriate introductory activity course as a prerequisite to the advanced activity course.

## KINE 276D Outdoor Leader 2 <br> KINE 280D Bike Touring

KINE 280S Special Topics 2 (Advanced Challenge Course Technical Skills, Mountain Bike Touring, Canoe Tripping, Advanced Navigation, Advanced Sea Kayak Tripping, Advanced Rock Climbing, Canoe Design and Construction, Advanced Survival)
Designed to enable students to take advantage of a particular expertise of visiting or permanent faculty

KINE 281D Advanced Canoeing
KINE 282D Advanced Survival

## LATIN

LATI 1103 Elementary Latin I
This course is an introduction to basic vocabulary and grammar of Classical Latin. This course counts toward the second language requirement.

## LATI 1113 Elementary Latin II

Continuation of the introduction to Classical Latin. This course counts toward the second language requirement. Prerequisite: LATI 1103.

## LATI 2006 Latin Prose and Poetry

Readings in Latin prose and verse; continued study of Latin grammar. Prerequisite: LATI 1113 with a grade of $B$ - or better.
LATI 2693 Special Topics

## LATI 3103 Augustan Literature.

Selected works by authors of the Augustan age, including Livy, Virgil, Horace and Ovid. Prerequisite: LATI 2006 with a grade of B- or better.

## LATI 3133 Latin Prose Composition

An intensive course in Latin syntax and prose composition. Prerequisite: LATI 2006 with a grade of B- or better.

## LATI 3503 Literature of The Late Republic

Selected works by authors of the Late Republic, including Cicero, Sallust, Lucretius and Catullus. Prerequisite: LATI 2006 with a grade of B- or better.

LATI 4006 Literature of The Early Empire
Authors include Tacitus, Juvenal, and Pliny the Younger.
LATI 4106 Roman Drama
Authors include Plaurus and Terence.
LATI 4206 Readings in Latin

## MATHEMATICS AND STATISTICS

MATH o110 Pre-University Mathematics
Topics from high school mathematics. This non-credit course serves as a prerequisite for courses that require NS Grades 11 and 12 Academic Math or their equivalent.
Prerequisite: with permission of the instructor.

## MATH o120 Advanced Pre-University Mathematics

Topics from pre-calculus mathematics. This non-credit course serves as a prerequisite for courses that require NS Grades 11 and 12 Advanced Mathematics and Pre-calculus or their equivalents. Prerequisite: permission of the instructor.

## MATH 1013 Introductory Calculus 1

Limits, tangent lines and derivatives, exponential, logarithmic and inverse functions. Application of the derivative to rates, extrema, curve sketching, indeterminate forms. Hyperbolic functions and parametric curves if time permits. (3h lecture, 1.5 h studio) Prerequisite: $60 \%$ or better in NS Precalculus (or equivalent) or $60 \%$ or better in Math o120. Satisfactory performance in diagnostic test is additionally required.
Antirequisites: Credit can be obtained for only one of Math 1013 and 1613.
Note: Math 1013 Xo is a two-semester section of Introductory to Calculus 1. This section includes a review of topics from pre-calculus. Permission of the department is required to register.

## MATH 1023 Introductory Calculus 2

Antiderivatives, the Fundamental Theorem of Calculus, techniques of integration, applications such as volumes, arc length, improper integrals, sequences, series, power series, Taylor series, Taylor polynomials. (3h lecture, 1.5 h studio) Prerequisite: Math 1013. It is strongly recommended that Math 1013 be completed in the previous semester.

Descriptive statistics, exploratory data analysis, correlation, least squares line, probability, random variables, normal distribution, sampling distributions, estimation and confidence intervals, elementary hypothesis testing, one-way analysis of variance using nonparametric and parametric tests. (3h lecture, 1.5 h studio)
Prerequisite: NS Grade 11 Academic or Advanced Math OR MATH o11O.
Antirequsites: Credit can be obtained for only one of MATH1213/MATH 1223, MATH 2213/MATH 2223, MATH 2233/MATH 2243, and ECON 2613/ECON 2623. However, students who have taken MATH 1213/MATH 1223 and are subsequently transferring to a Math/Stats major, may use these courses as science electives within their degree. Math 1213 cannot be offered for credit by any student registered in a science program, except for those in nutrition or psychology.

## MATH 1223 Statistics for Business and Behavioural Sciences 2

Binomial distribution and normal approximation to the Binomial, hypothesis testing and non-parametric inference for one and two populations, goodness-of-fit and contingency tables, one-way analysis of variance and multiple comparisons; block designs; Friedman test; further topics in regression. (3h lecture, 1.5 h studio)
Prerequisite: MATH 1213. Antirequisite: Credit can be obtained for only one of MATH1213/MATH 1223, MATH 2213/MATH 2223, MATH 2233/MATH 2243, and ECON 2613/2623. However, students who have taken MATH 1213/MATH 1223 and are subsequently transferring to a Math/Stats major, may use these courses as science electives within their degree. MATH 1223 cannot be offered for credit by any student registered in a science program, except for those in nutrition or psychology.

## MATH 1313 Foundations

Topics may include: Number systems. Complex numbers and De Moivre's theorem. Base arithmetic. Sets, set operations. Methods of proof, logic, truth tables, and quantifiers. Permutations and combinations. The binomial theorem. Relations and functions. One-toone and onto mappings. Basic number theory. Equivalence relations. Congruences. Simple codes. Graph theory.: NS Grade 11 and 12 Academic or Advanced Math Antirequisites: Credit can be obtained for only one of MATH 1313 and MATH 1413.

## MATH 1323 Matrix Algebra

Systems of linear equations, matrices, vectors in two and three dimensions, row reduction and echelon forms, linear independence and span, linear transformations, matrix operations, Invertible Matrix Theorem, subspaces, determinants, Cramer's Rule, eigenvectors and eigenvalues; a computational approach, with applications. Prerequisite: NS Grade 11 and 12 Academic or Advanced Math (or equivalent); OR MATH 0120 Antirequisites: Credit can be obtained for only one of MATH 1323 or MATH 1333.

## MATH 1333 Introduction to Linear Algebra

Systems of linear equations, matrices, vectors, row reduction and echelon forms, linear independence and span, linear transformations, matrix operations, Invertible Matrix Theorem, elementary matrices, LU Decomposition, subspaces, determinants and multilinear functions, Cramer's Rule, eigenvalues and eigenvectors, geometry of vector spaces, Singular Value Decomposition if time permits; a proof-based approach, with applications. Prerequisite: NS Grade 11 and 12 Academic or Advanced Math (or equivalent); OR MATH 0120. Antirequisites: Credit can be obtained for only one of MATH1323 or 1333.

## MATH 1413 Discrete Mathematics and Matrix Algebra

Logic, techniques of proof, mathematical induction, permutations and combinations, inclusion/exclusion, sets, relations and functions, elementary number theory.
Prerequisite: NS Grade 11 and 12 Advanced Math and Pre-calculus (or equivalent) and computer science enrolment, or permission of the instructor. Antirequisite: Credit can be obtained for only one of MATH 1313 and MATH 1413.

## MATH 1513 Truth in Numbers

The mathematical and statistical applications that appear in day-to-day media are discussed. Topics may include elections, fair division, climate change, environment, public health, epidemiology, finances, google searches, cryptography, and polls, and will be based on stories in the media. The course will teach numeracy skills to understand these topics. The course cannot be used to meet the Mathematical requirement for Math or other Science majors.

## MATH 1533 Mathematical Concepts 1

This course is designed for students planning a career in elementary education. Topics will include problem solving, logic and sets, algebra and functions, integers, rational numbers, decimals, percents, and real numbers. This course may not be used by students in science, business, economics, or mathematics to fulfill major or minor mathematics requirements. Prerequisite: Permission of the Department of Mathematics and Statistics.

## MATH 1543 Mathematical Concepts 2

This course is designed for students planning a career in elementary education. Topics will include problem solving, probability and data analysis, geometry, measurement, motion geometry. This course may not be used by students in science, business, economics, or mathematics to fulfill major or minor mathematics requirements. Prerequisite: Permission of the Department of Mathematics and Statistics.

## MATH 1553 Patterns and Algebra

An in-depth study of Patterns and Algebra across grades 4-10, focusing on the development and understanding of the underlying ideas. Additional focus will be placed on where student problems occur, links with other mathematics ideas, and effective teaching strategies. Science students, business students, economics students, and mathematics and statistics majors may not receive credit for this course.

## MATH 1563 Number: Whole Numbers, Integers, Rationals, and Real Numbers

An in-depth study of number (whole numbers, integers, fractions, and decimals) across grades 4-10, focusing on the development and understanding of the underlying ideas. Additional focus will be placed on where student problems occur, links with other mathematics ideas, and effective teaching strategies. Science students, business students, economics students, and mathematics and statistics majors may not receive credit for this course.

## MATH 1573 Geometry: 2d and 3d

An in-depth study of 2- and 3-dimensional Geometry across grades 4-10, focusing on the development and understanding of the underlying ideas. Additional focus will be placed on where student problems occur, links with other mathematics ideas, and effective teaching strategies. Science students, business students, economics students, and mathematics and statistics majors may not receive credit for this course.

## MATH 1583 Probability, Data Analysis, and Proportion

An in-depth study of Probability, Data Analysis, and Proportional Reasoning across grades 4-10, focusing on the development and understanding of the underlying ideas. Additional focus will be placed on where student problems occur, links with other mathematics ideas, and effective teaching strategies. Science students, business students, economics students, and mathematics and statistics majors may not receive credit for this course.

Linear equations and their graphs. Systems of linear equations and linear inequalities. Polynomials, exponential and logarithmic functions. Vector and matrix algebra. Derivatives and optimization. Applications to business and economics are integrated throughout the course. Emphasis is on understanding how problems are formulated mathematically and on interpretation of mathematically-expressed real-world problems. Math 1613 is a terminal course. Students wanting to take further math courses must take MATH 1013/MATH 1023 instead. Prerequisite: NS Grade 11 and 12 Academic or Advanced Math (or equivalent) or Math 0110. Satisfactory performance in diagnostic test may be additionally required. Antirequisites: Credit can be obtained for only one of Math 1013 and MATH 1613; however, students who have taken Math 1613 and are subsequently transferring to a Math/Stats major may use this course as a science elective.

## MATH 2013 Advanced Calculus

Functions of several variables. Partial differentiation and applications. Vectors in R2 and $\mathrm{R}^{3}$. Multiple and iterated integrals. Polar coordinates, spherical and cylindrical coordinates and multiple integrals. Change of variable in multiple integrals. Vector-valued functions and vector calculus. (4.5h lecture/studio combined) Prerequisite: Math 1023 with C- or better. Antirequisites: Credit can be obtained for only one of Math 2013 and MATH 2753.

## MATH 2023 Differential Equations 1

First order differential equations, second order differential equations with constant and variable coefficients, introduction to systems of differential equations and phase plane analysis, series solutions, boundary value problems, Laplace transforms. (3h lecture, 1.5 h studio) Prerequisite: Math 1023. Antirequisites: Credit can be obtained for only one of Math 2023 and MATH 2723.

## MATH 2213 Applied Probability for Science and Engineering

Descriptive statistics, combinatorics, probability spaces, random variables, probability modeling, discrete and continuous distributions, joint distributions, covariance, correlation, sampling distributions, central limit theorem, simple linear regression. (4.5h lecture/studio combined) Prerequisite: Math 1023. Antirequisites: Credit can be obtained for only one of MATH1213/ MATH 1223, MATH 2213/ MATH 2223, MATH 2233/ MATH 2243, and ECON 2613/ECON 2623. However, students who have taken MATH 2233/MATH 2243 and are subsequently transferring to a Math/Stats major, may use these courses as science electives within their degree.

## MATH 2223 Applied Statistics for Science

Estimation, confidence intervals, testing hypotheses, non-parametric methods, goodness of fit, regression, analysis of variance. (4.5h lecture/studio combined). Prerequisite: Math 2213. Antirequisites: Credit can be obtained for only one of MATH1213/1223, MATH 2213/ MATH 2223, MATH 2233/ MATH 2243, and ECON 2613/ECON 2623. However, students who have taken MATH 2233/ MATH 2243 and are subsequently transferring to a Math/Stats major, may use these courses as science electives within their degree.

## MATH 2233 Statistics for Life Sciences 1

Exploratory data analysis, probability, random variables, discrete and continuous distributions, sampling distributions, estimation confidence intervals, hypothesis testing. This course is restricted to students in biology, environmental science, computer science, nutrition, and psychology. (3h lecture, 1.5h studio) Prerequisite: NS Grade 11 and 12 Academic or Advanced Math OR MATH 0120. Students require second year standing or permission from their Department Head. Antirequisites: Credit can be obtained for only one of MATH1213/ MATH 1223, MATH 2213/ MATH 2223, MATH 2233/ MATH 2243, and ECON 2613/ECON 2623. However, students who have taken MATH 2233/ MATH

2243 and are subsequently transferring to a Math/Stats major, may use these courses as science electives within their degree.

## MATH 2243 Statistics for Life Sciences 2

Parametric and non-parametric inference for one and two populations, chi-square tests for goodness of fit, independence and homogeneity, simple linear regression, experimental design and analysis of variance. (3h lecture, 1.5 h studio) Prerequisite: Math 2233 with C- or better. Antirequisites: Credit can be obtained for only one of MATH1213/MATH 1223, MATH 2213/MATH 2223, MATH 2233/MATH 2243, and ECON 2613/ECON 2623. However, students who have taken MATH 2233/ MATH 2243 and are subsequently transferring to a Math/Stats major, may use these courses as science electives within their degree.

## MATH 2313 Linear Algebra 2

Abstract vector spaces, subspaces including null space and column space, linear transformations, coordinate systems, dimension, rank, change of basis, eigenvalues and eigenvectors, characteristic equation, diagonalization, inner product and orthogonality, orthogonal projections, Gram-Schmidt algorithm, inner product spaces, quadratic forms, Cayley-Hamilton Theorem. Prerequisite: MATH 1323 or MATH 1333.

## MATH 2433 Graph Theory and Algebraic Structures

Graphs and trees with application to computer science, number theory, monoids, semigroups, groups and homomorphisms with application to computer science, formal languages, finite state automata, and Turing machines. Prerequisite: MATH 1413 or MATH 1313.

## MATH 2633 Theory of Interest

The Mathematical theory behind interest-based investments. This course is designed to help prepare students for Part I of the Society of Actuaries' Exam FM. Topics include: simple and compound interest, annuities, amortization schedules, sinking funds, bonds, and other securities. Prerequisite: MATH 1023 or permission of the instructor

## MATH 2723 Introductory Differential Equations

First order differential equations, separation of variables, exact differential equations, integrating factors, second order differential equations with constant coefficients, general solutions, non-homogeneous equations, applications, equations with variable coefficients, series solutions, Laplace transforms. (4.5h lecture) Prerequisite: MATH 1023. Antirequisites: Credit can be obtained for only one of MATH 2023 and MATH 2723.

## MATH 2753 Multivariate Calculus for Applied Science

This course covers the calculus of vector-valued functions and functions of several variables. Topics include: vectors, dot product, cross product, parameterized curves, arc length, differentiation and integration of vector-valued functions, partial derivatives, optimization including Lagrange Multipliers, multiple integrals, change of variables in multiple integrals, vector fields, line integrals, surface integrals, Green's, Stokes' and Divergence Theorems. (4.5h lecture/studio combined) Prerequisite: Math 1023.
Antirequisites: Credit can be obtained for only one of MATH 2013 and MATH 2753

## MATH 3013 Studies in Mathematics and Statistics 1

Study of a particular topic in mathematics or statistics. Prerequisite: 6h MATH at the 2000 level with C- or better and permission of the department.

## MATH 3023 Studies in Mathematics and Statistics 2

Study of a particular topic in mathematics or statistics. Prerequisite: 6h MATH at the 2000 level with C - or better and permission of the department

## MATH 3213 Probability

Elementary set theory, outcome spaces, probability spaces, laws of probability (discrete and continuous), independence, conditionality, random variables, random vectors, distributions of functions of random variables, moments and moment generating functions, special distributions, law of large numbers, central limit theorem. Prerequisite: MATH 2013, MATH 2223, with grades of C- or better.

## MATH 3233 Regression

An introduction to the methodology and theory involved in multi-linear regression. Topics include: variable selection, indicator variables, correlation analysis and general linear hypothesis testing. Prerequisite: One of MATH 1323 or MATH 1333, and one of MATH 2223 or 2243, with grades of C- or better.

## MATH 3253 Nonparametric Statistical Inference

Nonparametric statistical inference and statistical methods based on ranks. Topics include rank and sign tests, linear rank statistics, nonparametric analysis of variance, measures of concordance, relative power and efficiency. Prerequisite: One of MATH 2223 or 2243 with a grade of C- or better.

## MATH 3263 Sampling Theory

Statistical surveys, simple random sampling, sampling proportions and percentages, estimation of sample size, ratio and regression estimators, stratified random sampling, cluster sampling, probability sampling. Prerequisite: One of MATH 2223 or 2243 with a grade of C- or better.

## MATH 3273 Design and Analysis of Experiments

Single and multi-factor analysis of variance, fixed and random effects models, analysis of co-variance, experimental design, including randomized block designs, balanced incomplete block designs, and factorial designs. Other topics may include repeated measures, split plot designs, response surface models, and fractional factorial designs. Prerequisite: One of MATH 2223 or 2243 with a grade of C- or better.

## MATH 3283 Time Series

Seasonal effects, trends, descriptive methods. Stochastic processes, moving average and autoregressive processes. Autocorrelation. Model fitting and Box Jenkins models. Forecasting. Regression based procedures. Prerequisite: One of MATH 2223 or 2243 with a grade of C- or better.

## MATH 3293 Statistical Learning

Modern statistical methods for supervised and unsupervised learning with large and complex data. Topics include: linear regression, classification, resampling methods, model selection and regularization, smooth regression, tree-based models, support vector machines, principal components and dimension reduction, clustering and statistical graphics. Prerequisite: One of MATH 2223 or 2243 with a grade of C- or better.

## MATH 3303 Algebra 1

Modern mathematics with emphasis on the fundamental concepts and structures of algebra. Introduction to groups, rings and fields. Topics including homomorphisms, isomorphisms, quotient structures, finite fields. Prerequisite: MATH 2313 with a grade of C- or better.

## MATH 3343 Combinatorics

The basic concepts and problems in combinatorial analysis, with applications. Topics include enumeration, selections and arrangements, distributions, binomial identities, Stirling numbers, recurrence relations, generating functions, inclusion-exclusion, Polya's theorem, designs. Prerequisite: MATH 2213 with a grade of C- or better.

## MATH 3413 Numerical Methods

Floating point computation, errors and their propagation, linear systems of equations, nonlinear equations, interpolation, numerical differentiation and integration. The solution of mathematical problems on a computer forms an integral part of the course. Prerequisite: MATH 1023 and one of MATH 1323 or MATH 1333, with grades of C- or better.

## MATH 3513 Number Theory

The basic concepts and problems of number theory. Topics included are properties of integers, divisibility and primes; congruences, power residues and quadratic reciprocity; Diophantine equations. Prerequisite: MATH 2313 with a grade of C- or better, or permission of the instructor.

## MATH 3533 Real Analysis 1

The emphasis in this course is on a rigorous examination of the theory underlying calculus. Topics include set theory, countability, the real numbers as a complete and totally ordered field, convergence of sequences, convergence of functions, continuity, derivatives. Prerequisite: MATH 2013 or MATH 2753, with a grade of C- or better.

## MATH 3543 Introductory Complex Variables

Complex numbers, analytic functions, elementary functions; contour integrals, Cauchy integral formula, maximum modulus theorem, series, residues and poles, conformal mapping; applications. Prerequisite: MATH 2013 or MATH 2753, with a grade of C- or better.

## MATH 3573 History of Mathematics

A study of the history of mathematics from the seventeenth century onward, with particular emphasis being placed on the shift from classical methods to the more abstract modern setting. Topics covered may include: the vibrating string, Cauchy and the definition of limits, the origins of set theory, non-Euclidean geometry, the development of group theory from Lagrange to Klein and Lie. Prerequisite: One of MATH 2013 or MATH 2753, and one of MATH 2023 or MATH 2723, with grades of C- or better.

## MATH 3603 Operational Research 1: Programming and Networks

This course will provide an overview of the operational research modelling approach, and focuses on deterministic mathematical programming. Topics may include linear programming, transportation and assignment problems, network methods, integer programming, and nonlinear programming. Prerequisite: MATH 2313 and either MATH 2013 or MATH 2753, with grades of C- or better.

## MATH 3633 Operational Research 2: Stochastic Models

This course will focus on stochastic modelling. Topics may include decision analysis, simulation, recurrent events such as birth and death processes, Markov processes, queuing theory and waiting line models, and inventory control. Prerequisite: MATH 2313 and either MATH 2213 or MATH 2233 with grades of C- or better.

## MATH 3713 Ordinary Differential Equations 2

Topics include systems of linear differential equations, Sturm-Liouville problems, orthogonal functions, Fourier series, dynamical systems, nonlinear systems. Prerequisite: MATH 1323 or MATH 1333 and MATH 2023 or MATH 2723, with grades of C- or better.

## MATH $\mathbf{3 8 0 3}$ Mathematics of Life Contingencies 1

An introduction to the mathematics of life contingencies. Topics include: Life insurance, survival models, life tables and selection, insurance benefits, annuities, premium calculation, and policy values. The course is designed to prepare students for the MLC
exam of the Society of Actuaries. Prerequisite or Corequisite: MATH 3213 with a grade of $C$ - or better.

## MATH 3813 Actuarial Models 1

An introduction to the construction and evaluation of Actuarial models. Topics include: measures of risk, continuous and discrete actuarial models, coverage modifications, aggregate loss models. The course is designed to prepare students for the C exam of the Society of Actuaries. Prerequisite or Corequisite: MATH 3213 with a grade of C- or better.

## MATH 3823 Models for Financial Economics

Interest rate models, valuation of derivative securities, arbitrage and put-call parity, option pricing using the binomial and Black-Scholes models, cash flow characteristics of exotic options, diffusion processes, Itô's lemma, simulation, risk management techniques. The course is designed to prepare students for the MFE exam of the Society of Actuaries. Prerequisite: MATH 2633, MATH 3213, with grades of C- or better.

## MATH 4013 Topics in Mathematics and Statistics 1

Senior-level study of a particular topic in mathematics or statistics. Prerequisite: 6 h MATH at 3000 level with C- or better, and permission of Department.

## MATH 4023 Topics in Mathematics and Statistics 2

Senior-level study of a particular topic in mathematics or statistics. Prerequisite: 6h MATH at 3000 level with C- or better, and permission of Department.

## MATH 4213 Mathematical Statistics

Sampling distributions, elementary decision theory, estimation, testing hypotheses. Prerequisite: MATH 3213 with a grade of C- or better.

## MATH 4223 Generalized Linear Models

Review of least squares linear regression and maximum likelihood estimation.
Generalized linear models, including binomial (logistic) regression, Poisson regression, contingency tables and log-linear models. Other topics in regression modelling such as survival analysis. Prerequisite: Two of MATH 3213, MATH 3233, MATH 3253, MATH 3263, MATH 3273, MATH 3283, MATH 3293, with grades of C- or better.

## MATH 4233 Statistical Consulting

The course aims to develop broad guidelines for a comprehensive approach to data analysis. Topics include data preparation, outlier detection and exploratory data analysis. Criteria for the selection of suitable methodologies are discussed as well as model validation methods and empirical evaluation methods. The course will be based largely on case studies. Prerequisite: 6 h from MATH 3233, MATH 3253, MATH 3263, MATH 3273, MATH 3283, MATH 3293, with grades of C- or better 3 h of which may be taken concurrently.

## MATH 4323 Algebra 2

Group theory, fields, field extensions, leading to Galois theory. Prerequisite: MATH 3303 with a grade of $C$ - or better.

## MATH 4333 Cryptography

This course is an introduction to modern cryptographic techniques and their mathematical foundations. Review of elementary number theory and algebra; classical cryptosystems; encryption standards; public key cryptosystems; digital signatures. Elliptic curve cryptography and quantum cryptography may be included. Prerequisite: MATH 3303 or MATH 3513, with a grade of C- or better.

## MATH 4343 Graph Theory

Isomorphism, classes of graphs, vertex degrees, graphic sequences, properties of trees, spanning trees, decompositions, Eulerian graphs, Hamiltonian graphs, matchings and factorizations including Hall's Theorem, connectivity, graph colouring, planar graphs including Euler's Formula, extremality, optimization. Prerequisite: MATH 2313 and a MATH 3000/4000 level course either taken previously or concurrently, with grades of $C$ - or better.

## MATH 4423 Advanced Numerical Methods

Numerical differentiation and integration, numerical solution of differential equations, optimization. The solution of problems on a computer forms an integral part of the course. Prerequisite: MATH 3413 with a grade of C- or better and enrolment in one 3000-level mathematics and statistics course.

## MATH 4513 Introductory Topology

Topics include topological spaces and metric spaces; closure, interior, boundary; bases for a topology; mappings and continuity; compactness and coverings; connectivity; product and quotient spaces. Additional topics such as the classification of surfaces, homotopy theory, and the fundamental group, if time permits. Prerequisite: MATH 3533 with a grade of C- or better.

## MATH 4523 Measure and Integration

Measurable sets. Lebesgue and Stieltjes integrals in $\mathrm{R}^{2}$ and abstract spaces. Selected applications. Prerequisite: MATH 3533 with a grade of C- or better.

## MATH 4553 Real Analysis 2

A continuation of 3533 . Topics include integration, infinite series and power series, convergence in Rn, topology in Rn , continuity and differentiability for multivariate functions, implicit and inverse function theorems, extra topics such as Fourier series if time permits. Prerequisite: MATH 3533 with a grade of C- or better.

## MATH 4613 Theory of Optimization

Linear and convex programming, convex functions and duality; Lagrange multipliers; Kuhn-Tucker methods. Topics may include: genetic algorithms, simulated annealing. Prerequisite: MATH 3533 and MATH 3603, with grades of C- or better.

## MATH 4753 Partial Differential Equations

Topics may include linear second order partial differential equations (parabolic, elliptic, and hyperbolic), separation of variables, eigenfunction expansion, Fourier series, method of characteristics, non-linear waves. Prerequisite: MATH 3713 and either MATH 2013 or MATH 2753, with grades of C- or better.

## MATH 4773 Fluid Dynamics

Topics may include the Navier-Stokes equations, streamlines, circulation, vorticity, irrotational flow, potential flow, laminar flow, gravity waves, dimensional analysis, geophysical fluid dynamics, turbulence, hydrodynamic instability.
Prerequisite/Corequisite: MATH 4753 with a grade of C- or better, or permission of the instructor.

## MATH 4803 Mathematics of Life Contingencies 2

Further topics in the mathematics of life contingencies. Topics include: multiple state models, pension mathematics, emerging costs for traditional life insurance and equitylinked insurance, option pricing, and embedded options. The course is designed to prepare students for the MLC exam of the Society of Actuaries. Prerequisite: MATH 3803 with a grade of $C$ - or better.

## MATH 4813 Actuarial Models 2

Further topics on construction and evaluation of Actuarial models. Topics include: construction of empirical models, estimation for complete or modified data, parametric estimation methods, model selection, credibility, and simulation. The course is designed to prepare students for the C exam of the Society of Actuaries. Prerequisite: MATH 3813 with a grade of C- or better.

## MATH 4913 Honours Project

A honours project in mathematics or statistics to be completed in conjunction with the honours student's advisor. An oral report (seminar) and a written report on the project are required in the second term. Prerequisite: at least third year standing in the honours program.

## MATH 4996 Honours Thesis

An honours thesis in mathematics or statistics to be completed in conjunction with the honours student's supervisor. The course requirements include an oral report and a written thesis. Prerequisite: permission of thesis supervisor and department. Antirequisite: Credit cannot be obtained for both MATH 4996 and MATH 4913.

## MUSIC

## MUSI 1013 Understanding Music for Non-Music Majors

A history of musical style of Western music. Developing an understanding and appreciation of musical style through reading and listening to select master pieces. No previous formal training in music is required but essential knowledge of fundamentals of music and the art of listening will be introduced. This course is not available to music majors for credit in the degree.

## MUSI 1033 Reading and Writing Music 1

Fundamentals of music reading and notation and basic concepts in music theory; an introductory course, designed for the non- music major.

## MUSI 1043 Reading and Writing Music 2

Fundamentals of music reading and notation and basic concepts in music theory; an introductory course, designed for the non- music major. Prerequisite: MUSI 1033 or permission.

## MUSI 1063 Music Theory for Non-Music Majors

Preliminary music fundamentals and practical skills. Introduction to music theory: melody, rhythm, intervals, chords, harmony and styles of musical expression. Students learn to read and write music signs and symbols from the traditional language of tonal music. Examples drawn from classical through to popular music; requires no previous formal training in music. This course is not available to music majors for credit in the degree.

## MUSI 1066 Principal Applied Study for Non-Music Majors

## MUSI 1216 Music Through the Ages

A comprehensive survey of music from the Middle Ages to the present day, addressing both the performance of music as well as the historical and socio-cultural basis for important stylistic developments. Analytical listening, research and writing skills, and the development of a music-specific vocabulary will be emphasized. Prerequisite: Permission of the School.

An introduction to the historical and socio-cultural context for the study of music. This course will examine a wide range of repertoires and historical periods in developing critical thinking, listening, and analysis skills for the study of music history and culture.

## MUSI 1263 Introduction to Musicology

This course will introduce students to research methods and strategies while also addressing contemporary issues in the study of musicology. The course will continue to emphasize critical thinking, analysis, and communication skills.

## MUSI 1353 Guitar Class

Introduction to the guitar and skills related to playing guitar. Topics covered include: rudimentary theory, scales, strumming, finger picking, learning to read music, chord diagrams, and other various forms of tablature. Various styles of music are used including classical, folk and blues. No previous guitar knowledge required. Note: there is a $\$ 200$ surcharge for non-music majors. Students may not also be concurrently enrolled in principal or secondary applied guitar.

## MUSI 1363 Diction for Singers

A laboratory course in basic enunciation and projection of the Italian, German, and French Languages. This course is recommended for any student studying principal applied voice.

## MUSI 1563 Introduction to Music Therapy

An introduction to the psychological, neurological, and somatic foundations of music. This course will include current music medicine research, approaches and methods, psychoacoustics, different client populations, and the development of music psychology within the field of music therapy.

## MUSI 1600 First-Year Chorus

University Chorus for first-year music students to develop aural comprehension, sightsinging skills, and instruction in large ensemble performance.

## MUSI 1663 Secondary Applied Study MUSI 1666 Principal Applied Study

## MUSI 1693 Playing and Hearing Music

An introduction to fundamental principles of practical musicianship. Students will discover how to conceive of and relate to sound both as soloists and ensemble members through progressive exercises and assignments to develop critical listening skills, internal conception of sound, improvisation, transcription and aural analysis, performance and practice habits, and ensemble awareness. Prerequisite: MUSI 1813 with a C-or better.

## MUSI 1713 Music Therapy Guitar Class

Introduction to the guitar and skills related to playing guitar. Topics covered include: rudimentary theory, scales, strumming, finger picking, learning to read music, chord diagrams, and other various forms of tablature. Various styles of music are used including classical, folk and blues. Students may not also be concurrently enrolled in principal or secondary applied guitar.

## MUSI 1733 Music Therapy Vocal Class

Small group instruction in voice production, projection and performance. The fundamentals of singing are explored: anatomy, breathing-for-singing, resonance, articulation, vocal health. Vocal work in the clinical practice of music therapy will be studied. This course is restricted to music therapy majors who do not have voice as their principal applied study.

## MUSI 1813 Comprehensive Keyboard

Basic instruction and introduction to keyboard skills that support and facilitate the application and learning of theory, ear training, sight-singing, and solfège.

## MUSI 2003 Jazz History

A survey of jazz music, examining the musical and social pre-conditions of jazz. An opportunity to learn how to listen, understand and appreciate the music of this era, and to explore the central figures and styles that make up jazz as we know it to the present day.

## MUSI 2063 Musics of the World

This course is an introduction to some of the principal musical traditions from five regions of the world: India, The Middle East, Eastern Europe, Africa and Southeast Asia. Each class will provide participants the opportunity to listen deeply, and discuss ideas about music and culture. A hands-on component will complement each unit. Open to students from all academic disciplines.

## MUSI 2066 Principal Applied Study for Non-Music Majors

## MUSI 2083 World Rhythm and Drumming

Open to music and non-music majors, this comprehensive course is a hands-on introduction to the techniques and cultural traditions of drumming around the world. in addition to rhythmic training and hand-drumming instruction, in-class listening and group discussion will play a primary role in the course. Students will participate in a yearend performance demonstration.

## MUSI 2106 Music Theory for the Contemporary Musician

A comprehensive course that integrates topics in classical music theory with jazz theory, popular music, and musics of the world. Foundational topics such as harmony, counterpoint, analysis, and composition will be taught from a broad perspective that forges connections between different traditions, styles, and genres. Prerequisite: MUSI 1693 with a $C$ - or better.

## MUSI 2133 Music Theory 3

Advanced work in chromatic harmony, fundamental concepts in form, analysis and counterpoint. Prerequisite: MUSI 1143 with C- or better.

## MUSI 2143 Music Theory 4

Advanced work in chromatic harmony, fundamental concepts in form, analysis and counterpoint. Prerequisite: MUSI 2133 with C- or better.

## MUSI 2163 Introduction to Music Technology

An introduction to Digital music instruments, computer music notation, basic MIDI/audio sequencing, editing and recording. Prerequisite: Permission of the instructor for non-music majors.

## MUSI 2183 Composition 1

Various compositional techniques of the twentieth century. Prerequisite(s): MUSI 1693 with $C$ - or better.

This course will introduce students to the art and craft of commercial songwriting in various genres. Through analysis of great songs, and individual and group creative work, students will develop their abilities to create songs with compelling formal and harmonic structures, melodies, and lyrics. Classes will be divided into analysis lectures, student analysis presentations, and presentations and critiques of works in progress.
Prerequisite: MUSI 2106 with a C- or better.
MUSI 2283 Old Music in a Modern World
An examination of the contemporary performance and performers of historical repertoires. Topics may include (but are not limited): historically-informed performance; modern stages of historic operas; ancient music as a source of inspiration for new compositions; use of "Classical" music in movies and television; the performer as an historian; and marketing "Classical" music for modern audiences. Prerequisite: MUSI 1216 with a $C$ - or better.

## MUSI 2343 Percussion Methods

Teaching techniques for and performance upon snare drum and timpani, and experience with auxiliary band and orchestral percussion. Prerequisite: permission of School of Music.

## MUSI 2353 String Methods 1

A practical approach to strings (violin, viola, cello, and bass), and related instructional methods and materials.

## MUSI 2383 Introduction to Gamelan

A hands-on introduction to the playing techniques and repertoire of gamelan - the traditional tuned percussion orchestra of Indonesia. The course is presented in weekly "laboratory" sessions, which are supplemented by the independent study of readings and audio-visual material. The gamelan class will also participate in a year-end performance demonstration.

## MUSI 2573 Clinical Practice in Music Therapy 1

Assessment and Treatment Process. Includes assessment, ethics, formulation of clinical goals and objectives, and clinical documentation procedures. Students will be introduced to clinical writing skills and will have an opportunity to shadow/observe an accredited music therapist. B- or better required as prerequisite for consideration for entry to BMT program. Prerequisite(s) MUSI 1563 with a C- or better.

## MUSI 2663 Secondary Applied Study MUSI 2666 Principal Applied Study

## MUSI 2693 Playing and Hearing Music 2

This course is a continuation of a student's introduction to fundamental principles of practical musicianship. Students will discover how to conceive of and relate to sound both as soloists and ensemble members through progressive exercises and assignments to develop critical listening skills, internal conception of sound, improvisation, transcription and aural analysis, performance and practice habits, and ensemble awareness.
Prerequisite: MUSI 1693 with a C-or better.

## MUSI 2700 Performing Ensemble 1

Principal performing ensemble for music majors. Students will choose one section of Symphonic Band, Wind Ensemble, University Chorus, University Orchestra or other designated ensembles. Students must successfully complete both the fall and winter term of this ensemble.

Chamber Music Workshop includes intensive work on various repertoire with a small group and a faculty coach. Groups receive weekly coaching, academic lectures, assignments and various performance opportunities. Course may be repeated for credit.

## MUSI 2793 Playing and Hearing Music 3

This course is a continuation of a student's introduction to fundamental principles of practical musicianship. Students will discover how to conceive of and relate to sound both as soloists and ensemble members through progressive exercises and assignments to develop critical listening skills, internal conception of sound, improvisation, transcription and aural analysis, performance and practice habits, and ensemble awareness.
Prerequisite: MUSI 2693 with a C- or better.

## MUSI 2800 Performing Ensemble 2

Secondary performing ensemble for music majors. Students must successfully complete both the fall and winter term of this ensemble.

## MUSI 2870 Concert Credit

All music majors are required to attend concerts in the Performing Arts Series. A minimum of $50 \%$ of the scheduled PAS concerts must be attended in order to receive credit. In addition, students must attend the School of Music's weekly recital and lecture series.

## MUSI 2903/6 Special Course in Music

## MUSI 3003 History of Rock Music

The social, political, and cultural history of rock music. This course is designed for nonmusic majors and no previous musical training is required.

## MUSI 3066 Principal Applied Study for Non-Music Majors

## MUSI 3143 Choral Conducting

The fundamentals of conducting, including posture, stance, conducting patterns, beat styles, score preparation and rehearsal procedures. A variety of phrases and short pieces of music (acapella and accompanied) are studied and performed. Course work includes observation of conductors on campus and in the community. Prerequisite: MUSI 2106 with a $C$ - or better.

## MUSI 3163 Electronic Music Composition

The history, theory and practice of electro-acoustic and computer music production, including practical work in the recording studio. Prerequisite: MUSI 2106 with a C- or better.

## MUSI 3183 Advanced Topics in Music Theory and Analysis

Selected topics for further study, which may include advanced chromatic harmony, counterpoint, stylistic analysis, theories of musics outside the Western canon, queer theory, feminist theory, and other topics on a rotational basis. Prerequisite: MUSI 2106 with a $C$ - or better.

## MUSI 3193 Orchestration and Arranging

A survey of traditional and modern orchestral techniques and arranging strategies for various ensembles. Includes intensive score analysis and original work. Prerequisite: MUSI 2106 with a C- or better.

Style and structure in Western art music from the late 19th Century transitional period to the present, with emphasis on trends during the first half of the century. Prerequisite: MUSI 1216 and MUSI 2106 each with C- or better.

## MUSI 3223 Music in Canada

A study of music in Canada, past and present, presented within the context of the sociocultural, political, and economic history of the country. Prerequisite: MUSI 1216 and MUSI 2106 each with $C$ - or better.

## MUSI 3233 Piano Literature

A study of form, style and performance practices as applied to the piano from the eighteenth century onward. Includes extensive score analysis and discriminative listening. Prerequisite: MUSI 1216 and MUSI 2106 each with C- or better.

## MUSI 3243 Musical Masterworks

The history and style of significant musical works from vocal and/or instrumental genres, examined through readings, recordings, and score study. This course may address a particular theme (such as music and nature, or music and war), or may address music of a particular genre (such as the symphony, chamber music, or music and drama). Prerequisite: MUSI 1216 with a C- or better, or permission of the instructor.

## MUSI 3283 Music Since 1945

Major developments of Western music from 1945 until today with an emphasis on contemporary arts movements, new and improvised music and recent advancements in technology. Structural and formal analysis of select repertoire. May be offered as a structured seminar or an independent study. Prerequisite: MUSI 1216 and MUSI 2106 each with $C$ - or better.

## MUSI 3310 Music Education Seminar Band

Music Education students join the Acadia Youth Band and play instruments other than their major instrument in either 3rd or 4th year. Students may take this course more than once, at the discretion of the School.

## MUSI 3311 Flute Methods

Introduction to flute technique, and instructional methods and materials for teaching the flute. Prerequisite: permission of the School of Music.

## MUSI 3320 Music Education Seminar Choir

Music Education students will work with the Annapolis Valley Honour Choir, assisting in the delivery of this program for one year, in either 3rd or 4th year. Students may take this course more than once, at the discretion of the School.

## MUSI 3321 Oboe Methods

Introduction to oboe technique, and instructional methods and materials for teaching the oboe. Prerequisite: permission of the School of Music.

## MUSI 3331 Bassoon Methods

Introduction to bassoon technique, and instructional methods and materials for teaching the bassoon. Prerequisite: permission of the School of Music.

## MUSI 3341 Clarinet Methods

Introduction to clarinet technique, and instructional methods and materials for teaching the clarinet. Prerequisite: permission of the School of Music.

## MUSI 3351 Saxophone Methods

Introduction to saxophone technique, and instructional methods and materials for teaching the saxophone. Prerequisite: permission of the School of Music.

## MUSI 3361 Trumpet Methods

Introduction to trumpet technique, and instructional methods and materials for teaching the trumpet. Prerequisite: permission of the School of Music.

## MUSI 3371 French Horn Methods

Introduction to horn technique, and instructional methods and materials for teaching the French horn. Prerequisite: permission of the School of Music.

## MUSI 3381 Trombone Methods

Introduction to trombone technique, and instructional methods and materials for teaching the trombone. Prerequisite: permission of the School of Music.

## MUSI 3383 Piano Pedagogy

Discussions and demonstrations of all aspects of teaching piano from the beginner to the more advanced student. Prerequisite: MUSI 1216 and MUSI 2106 each with C- or better.

## MUSI 3391 Tuba/Euphonium Methods

Introduction to tuba and euphonium technique, and instructional methods and materials for teaching low brass instruments. Prerequisite: permission of the School of Music.

## MUSI 3553 Clinical Keyboard

This course is designed to meet the Recommended Areas of Competence for Keyboard Skills as outlined by the Canadian Association for Music Therapy (CAMT). This is a required course for students in the Bachelor of Music Therapy degree. Keyboard skills and concepts are taught and evaluated as they apply to music therapy clinical practice. Prerequisite: MUSI 2106 with C- or better.

## MUSI 3563 Skills and Resources 1

An examination of skills and resources of music therapy: assessment protocols, structuring and facilitating treatment plans, clinical musicianship, session leading, evaluation and clinical writing, professional issues within a multidisciplinary team, the effective use of self-care, and analysis of current music therapy literature. Co-requisite: Music Therapy Practicum 1 (MUSI 356o). Prerequisite(s) MUSI 2573 with a B-or better.

## MUSI 3573 Clinical Practice in Music Therapy 2

Theory, Practice and Research. This course provides the theoretical foundations to examine current music therapy research and approaches, including Analytical Music Therapy, Guided Imagery in Music, Nordoff-Robbins method, Medical Music Therapy, Neurological Music Therapy, Community Music Therapy, and Group Music Therapy. Co-requisite: Music Therapy Practicum 2 (MUSI 3570). Prerequisite(s) MUSI 3563 with $a B$ - or better.

## MUSI 3583 Music Therapy Practicum Seminar 1

The practicum seminar provides a link between the practical and theoretical aspects of music therapy training. During the seminar students will have the opportunity to reflect upon their clinical experiences, and gain support and direction through individual and group supervision. Students will develop the ability to articulate clinical experiences through completing and reviewing clinical documentation.

## MUSI 3660 Third Year Recital

Recital in the third year of Bachelor of Music program. Prerequisite: permission of the School.

## MUSI 3663 Secondary Applied Study MUSI 3666 Principal Applied Study MUSI 3683 Scene Studies

This course synthesizes acting, movement, communication and musical skills to prepare the student for effective stage performance. Excerpts from the historical and contemporary repertoire emphasize ensemble interaction between performers.

## MUSI 3693 Collaborative Piano

Instruction and practical experiences in collaborative piano for music or non-music students (with permission of the instructor). This course is encouraged for all principal applied pianists, as the skills covered are fundamental for pianists in all degree programs.

## MUSI 3713 Improvisation and Creative Process

The shifting landscape of the 21st century requires an approach that is flexible, resilient, and above all, creative. Drawing from practical and academic sources, we will expand our methods and understanding of this essential, yet normally intangible, life skill. For music majors or other students interested in enhancing creative approaches in their chosen discipline as well as everyday life. Prerequisite: Permission of the Instructor.

## MUSI 4066 Principal Applied Study for Non-Music Majors

## MUSI 4103 Introduction to Post-Tonal Theory

Theories and analytical techniques for exploring twentieth century, post-tonal music including: pitch-class set theory, transformational networks, 12-tone serialism, and combinatoriality. Weekly seminar. Prerequisite MUSI 2106 with C- or better.

## MUSI 4113 Special Studies in Music Theory

Selected topics in music theory and analysis. May be offered as a structured seminar or an independent study. Prerequisite: MUSI 2106 with C- or better.

## MUSI 4123 Structural Analysis

Concepts and tools of analysis applied to a wide variety of music literature. The growth and expansion of musical structure through the analysis of the traditional repertoire and twentieth-century works. Prerequisite: MUSI 2106 with C- or better.

## MUSI 4143 Conducting 1

This course prepares students to lead music ensembles (instrumental and choral), with an emphasis on the needs of music educators. This introductory course will focus on the development of physical dexterity, and introduces score analysis, interpretation, and rehearsal techniques. Students are encouraged to continue and take Conducting 2 in the winter term. Prerequisite: MUSI 1216 and MUSI 2106 each with C- or better, or permission of the instructor.

## MUSI 4153 Conducting 2

This course is the second part of the conducting sequence, continuing the in-depth preparation of students to lead choirs, orchestras, and bands. There is added emphasis on advanced score study, rehearsal techniques, leadership, and organization of ensemble programs. Prerequisite(s) MUSI 4143 with C- or better, or permission of the instructor.

## MUSI 4163 Jazz Theory

A study of jazz harmonic structures and compositional styles with a focus on post-1960s jazz. The course will feature analysis of modern jazz repertoire as well as jazz composition, harmonization, and arranging. Prerequisite: MUSI 2106 (MUSI 2003 recommended).

## MUSI 4183 Advanced Musicianship

Special topics in advanced musicianship for performance majors. Topics may include improvisation, rhythmic performance, extended instrument techniques etc. Course may be repeated for credit.

## MUSI 4213/4223 Special Studies in Music History

Selected topics in musical history and literature. Prerequisite: MUSI 1216 and MUSI 2106 each with C - or better.

## MUSI 4243 Opera History: Sex, Gender and Stereotypes in Opera

The aim of this course is to explore the representation of gender and sexuality in Opera. Utilizing listening examples and a broad range of texts, the role of the castrato (a male singer with the voice of a female) and the development of the "trouser-role" (the mezzosoprano portraying men and boys) will be examined.

## MUSI 4283 Women in Music

A seminar course exploring topics and issues pertaining to women's participation and representation in music throughout history up to the present day. Prerequisite: Students must have completed 3oh of University credits.

## MUSI 43A3 Introduction to High School Instrumental Music

Students will be introduced to the philosophies underpinning best practice in teaching instrumental music in high schools. Topics will include repertoire selection, administration of resources, scheduling, and unit design, congruent with the Nova Scotia Instrumental Music Curriculum. Prerequisite: MUSI 2106 with C- or better.

## MUSI 43B3 Introduction to Elementary Classroom Music

Students are introduced to practical skills and philosophies requisite to group teaching in the elementary music classroom. Work with classroom instruments, vocal production, and music listening are introduced, congruent with the Nova Scotia Music Curriculum.
Prerequisite: MUSI 2106 with C- or better.

## MUSI 4343 Jazz Education Techniques

This course provides a survey of specific topics crucial for success in jazz instruction in the school system. These topics include jazz theory, improvisation strategies, and basic jazz history. Through observation and class teaching projects, students will gain insights and expertise in conducting/leading jazz ensembles. Prerequisite: MUSI 1216 and MUSI 2106 each with $C$ - or better.

## MUSI 4363 Vocal Science and Pedagogy

A course designed to provide information on a wide variety of topics related to vocal function, health and wellness, as well as to the teaching of voice.

## MUSI 4383 Special Topics in Wind Music

This course explores wind music repertories from North America (with a specific focus on Canadian works), Europe, and around the world, from the Renaissance to the present day. Specific works by great composers are explored in detail, examining scores, recordings, composer biographies, and cultural context. Prerequisite: MUSI 1216 and MUSI 2106 with $C$ - or better, or permission of the instructor.

## MUSI 4393 Special Topics in Music Education

Special Topics courses are designed to provide an opportunity for in-depth study of specific music and music education issues and problems. These courses often prepare students for graduate study in the field of music education and conducting. Topics may include conducting; advanced choral techniques; wind literature; and others, at the discretion of the instructor. Prerequisite: MUSI 1216 and MUSI 2106 with C- or better, or permission of the instructor.

## MUSI 4563 Skills and Resources 2

A continuation of music therapy skills and resources: analysis and evaluation, balance between verbal counselling and music, specific client populations, advanced music therapy interventions, and ethical professional boundaries for music therapy. Current music therapy literature and case studies will be utilized. Co-requisite: Music Therapy Practicum 3 (MUSI 456o). Prerequisite(s) MUSI 3573 with a B- or better.

## MUSI 4573 Clinical Practice in Music Therapy 3

Case Studies and Professional Issues. In preparation for their internship students will study private practice, regulations and jurisprudence, clinical documentation and case studies, and responsible practice. Students will also learn how to prepare for the MT-BC exams. Co-requisite: Music Therapy Practicum 4 (MUSI 4570). Prerequisite(s) MUSI 4563 with a $B$ - or better.

## MUSI 4583 Music Therapy Practicum Seminar 2

The practicum seminar provides a link between the practical and theoretical aspects of music therapy training. During the seminar students will have the opportunity to reflect upon their clinical experiences, and gain support and direction through individual and group supervision. Students will develop the ability to articulate clinical experiences through completing and reviewing clinical documentation.

## MUSI 4663 Secondary Applied Study MUSI 4666 Principal Applied Study

## MUSI 4683 The Singing Actor

Improvisation, movement and acting exercises, character study, and solo scenes explore the personal potential of the young performer. Excerpts from the historical and contemporary repertoire, as well as original material, emphasize solo performance. This course is open to students studying applied voice, or by permission of the instructor.

## MUSI 4906 Applied Study

## MUSI 4943 Graduation Recital

Students must be concurrently enrolled in a final year of Principal Applied Study. MUSI 4940 L to be registered concurrently. Prerequisite: MUSI 3660 with $B+$ or better.

## MUSI 4953 Recital of Original Works

A full program of original works by the graduating student. The program will include a sampling of works for various ensembles and give evidence of both originality and command of contemporary idioms. Students must be concurrently enrolled in MUSI 4666.

MUSI 4993 Thesis
Final research project for graduating theory-history major.

Prerequisite: permission of the School of Music.

## NUTRITION

## NUTR 1313 Human Nutrition 1

The nutrients essential to human life and well-being, their function in digestion and metabolism, and their sources in food as it is consumed. Also open to non-nutrition majors with first or second year standing.

## NUTR 1323 Human Nutrition 2

The application of nutrition through the life cycle. Prerequisite: NUTR 1313.

## NUTR 1333 Food Commodities 1

A study of the basic scientific principles underlying the processing of food commodities including vegetables, fruit, meat, fish, poultry. Additional topics will include colloids, sols, gels and rheology. (3h lab).

## NUTR 1343 Food Commodities 2

A study of the basic scientific principles underlying the processing of food commodities including cereal grains, dairy products and eggs. Additional topics will include food additives, labelling and food security (3h lab) Prerequisite: NUTR 1333.

## NUTR 1353 Food Commodities 2 for Family Studies

A study of the basic scientific principles underlying the processing of food commodities including cereal grains, dairy products, and eggs. Additional topics will include food additives, labelling and food security. Practicum experience will be integrated into the lectures. Students in the Bachelor of Science in Nutrition program will not be eligible to take this course.

## NUTR 1503 Understanding Nutrition

The basis of food selection for health. The course stresses evaluation of personal nutrient intake, especially carbohydrate, fat, and protein, in relation to needs for active living, weight management, and chronic disease prevention. Issues will be discussed within a contemporary context. Open to non-nutrition majors only.

## NUTR 2323 Food and People

A study of the diet and changing food habits from a cultural, religious and social context, including the influence of gender roles. Both historical and modern food and cuisine will be examined. Programs and methods for meeting the world's food needs are evaluated and current technology and resources directed to food security and food safety are discussed. Open to nutrition majors and majors/minors of the Women and Gender Studies program.

## NUTR 2333 Understanding Food Science

The course will introduce important food science concepts including principles involved in the processing, handling and storage of foods. It will include a broad range of topics in food science and technology including the relationship of science and technology in food processing, the functional properties of major food attributes, food engineering, food law and career opportunities within the food industry. Prerequisites: BIOL 1113 or BIOL 1813, CHEM 1023.

## NUTR 2613 Food Resource Management

A study of food both as a resource to be managed and as a consumer good for which other resources are expended. Topics will include the environmental aspects of food production, laws and regulations governing food products, global distribution of food resources, and the cause and effect of consumer demand for food products. Prerequisites: NUTR 1323 and NUTR 1343.

## NUTR 3513 Community Nutrition

Examination of the essential principles in program planning, development, delivery, assessment and evaluation in community nutrition initiatives. Includes strategies for implementing programs across and within select populations. Prerequisites: NUTR 1323, NUTR 3713.

## NUTR 3523 Nutrition and Aging

A study of the changing nutritional needs during the later years and the assessment of the nutritional status of elders. The factors that may influence food intake of elders within the community and in long term care are examined. Prerequisite: NUTR 3723.

## NUTR 3533 Sports Nutrition

This course will cover food and nutrient recommendations applied to athlete health and performance. Prerequisites: NUTR 1503 with a minimum grade of B- or NUTR 1313.

## NUTR 3543 Nutrition Education

This course examines principles of nutrition education, including program design and implementation, theories of behaviour change, and methods and strategies across the lifespan. Prerequisites: NUTR 1323, NUTR 3513.

## NUTR 3553 Professional Practice in Dietetics

An investigation of current professional practice issues as they relate to food, nutrition and dietetic practice. Topics covered in this course will include professional practice concepts; Integrated Dietetic Competencies for Dietetic Education and Practice (ICDEP); standards of dietetic practice in Canada; ethical, legal and regulatory issues related to dietetic practice; inter-professional learning; leadership; conflict resolution, reflective practice and professional development. Prerequisite: NUTR 3713.

## NUTR 3713 Introduction to Communication

This course will cover the principles of interpersonal, group and public communication, including verbal and non-verbal communication. The influences of values, beliefs and perception on communication are explored. Theories of teaching, learning, motivation, cognition, behaviour change, interviewing, and counselling are introduced. This course does not serve as a science elective. Prerequisite: NUTR 3723.

## NUTR 3723 Principles of Nutritional Assessment

Major principles of and methods used in nutritional assessment of populations and individuals in health and disease states including anthropometric, biochemical, clinical, and dietary approaches. Prerequisite: NUTR 1323.

## NUTR 3883 Directed Readings in Nutrition

Readings and discussions in a selected area under the direction of a faculty member. Intended primarily for students in third and fourth year.

## NUTR 4013 Management in Dietetics 1

Food service production and distribution, sanitation, safety, quantity food preparation, strategic planning, menu planning, quality management, risk management, marketing and financial management are examined. Management principles and theory, human resource management and the use of computers as related to food service operations are introduced. ( 12 hours of Lab Orientation and Safety Tutorials in NUTR 4013 plus six 6 hour labs - spread across NUTR 4013 and NUTR4023). Prerequisites: NUTR 1343 and fourth year standing, or permission of School.

## NUTR 4023 Management in Dietetics 2

Organizational culture, behaviour and the management of human resources are
examined. The planning and design of food service operations, including equipment
selection, are reviewed. The procurement, production and storage of food in quantity are explored. Environmental and ethical considerations are discussed. (Six 6 hour labs spread across NUTR 4013 and NUTR 4023). Prerequisite: NUTR 4013.

## NUTR 4033 Dietetic Practicum 1

A 16-week full-time professional practicum in community and institutional settings where, under the supervision of the Acadia Dietetic Practicum Coordinator, students work with preceptors to achieve nationally set competencies. Development of a practice-based research project proposal is required. Prerequisites: $B$ - in each of NUTR 1323, NUTR 1343, NUTR 3713 and NUTR 3723, third year standing and acceptance into the Dietetic Practicum Program.

## NUTR 4043 Dietetic Practicum 2

A 32-week full-time (minimum) professional practicum in community and institutional settings where, under the supervision of the Acadia Dietetic Practicum Coordinator, students work with preceptors to achieve nationally set competencies. A practice-based research project and completion of a research seminar are required components of this practicum course. Prerequisite: NUTR 4033.

## NUTR 4053 Topics in Obesity

Social and anthropological, biological, cultural, socioeconomic and evolutionary influences on human body composition and energy imbalance. Highly interactive and discussion based learning. Prerequisite: NUTR 3513.

## NUTR 4063 Affecting Change in Nutrition and Dietetics

This course is a study of the nature and history of leadership as it relates to social change in health and human services generally, and nutrition and dietetics specifically.
Prerequisite: NUTR 3513.

## NUTR 4083 Independent Study

A substantial scholarly study chosen in consultation with a faculty advisor to reflect student interest. Such a study may be based on field, laboratory or library study. Intended primarily for qualified students with a defined and approved research interest.

## NUTR 4223 Sensory Evaluation of Food

Principles involved in the evaluation of the appearance, taste, smell and texture of foods, with an emphasis on their role in food product development. Evaluation approaches, including consumer and analytical tests are covered in theory and in practice. The laboratory component includes a research project on sensory attributes of foods. (3h lab) Prerequisites: MATH1223 or 2243, NUTR 1343.

## NUTR 4513 Nutrition in Global Health and Development

This course will enable the student to identify the role of nutrition in facilitating global health and development and debate the issues around setting of priorities at home and abroad. It will provide opportunities to formulate and analyse approaches for mobilizing community participation in nutrition and health care. Prerequisites: NUTR 1323, NUTR 2323, NUTR 3513 or permission of School.

## NUTR 4523 Advanced Human Nutrition

Recent developments in human nutrition. The integration of nutrition, biochemistry and physiology is stressed. Independent survey of periodical literature in this field.
Prerequisites: BIOL 2823, NUTR 1323, CHEM 2713 or CHEM 2773.

NUTR 4533 Nutrition and Disease 1
Epidemiology, pathophysiology and the role of medical nutrition therapy in the management of selected chronic conditions. Practical applications are explored through case studies. Prerequisites: BIOL 2823, NUTR 3723, NUTR 4523.

## NUTR 4543 Maternal and Infant Nutrition

The importance of nutrition to the outcome of pregnancy. Topics include: physiology of pregnancy and lactation; nutritional requirements and food habits of pregnant women; methods of feeding, nutritional requirements and growth and development of the infant and preschooler. Prerequisites: BIOL 2823, NUTR 1323.

## NUTR 4553 Nutrition and Disease 2

A continuation of NUTR 4533. Epidemiology, pathophysiology and the role of medical nutrition therapy in the management of gastrointestinal, renal, hepatic, respiratory diseases and catabolic states will be addressed. Application of parenteral and enteral nutrition support systems will be introduced and applied along with ethical issues in nutrition management of disease. Practical applications are studied in case studies. Prerequisite: NUTR 4533.

## NUTR 4733 Food Product Development

The chemical, procedural and technological aspects of food product development. The functionality of food ingredients in relation to the formulation of food products is covered. Evaluation techniques employed in measuring the physical and sensory attributes of food systems are included. (3h lab) Prerequisite: NUTR 1343.

## NUTR 4743 Introduction to Nutrition and Health Research

A study of the principles and application of the research process related to nutrition and health. Focus of the course includes identifying a research problem, searching the literature, devising a protocol, and selecting methods of analysis. Ethical and other considerations will be discussed. These principles will be applied in the preparation of a research proposal. Prerequisites: MATH 1223 or MATH 2243; NUTR 1323, third year standing or permission of School.

## NUTR 4903 Senior Seminar

Evaluation of current research literature and its application to nutritional issues. Literature review, written and oral presentation of an independent study on a current topic of concern in nutrition. Prerequisite: fourth-year standing in nutrition.

## NUTR 4913 Special Topics in Nutrition

In depth study of a selected topic in the field. Designed to enable students to take advantage of a particular expertise of visiting or permanent faculty. Prerequisites: NUTR 1323 and permission of School.

## NUTR 4996 Honours Thesis

The Honours Thesis provides an opportunity for a student, under the guidance of a supervisor, to select a research topic, conduct a literature review of the topic, write a research proposal, carry out the research, and present it in a professional manner both orally and as a written thesis. Prerequisite: NUTR 4743.

## PHILOSOPHY

## PHIL 1106 Introduction to Philosophy

An introduction which focuses on philosophy as a rigorous problem-solving discipline. After asking about the nature of philosophy itself, we will tackle philosophical problems concerning language, logic, identity, knowledge, morality, and God. We will work throughout to master the logical skills necessary not only for good philosophizing but for clear thinking on any topic. Students may register for no more than 6 hours at the 1000level.

## PHIL 1113 The Examined Life in the Information Age

This course offers an exploration of major philosophical themes in the context of the emerging technological and information revolution. We will explore subjects that include: 1) challenges to autonomy in an age of mass culture, 2) the effects of integrated media, 3) the philosophical shift from citizen to consumer, and 4) the moral implications of the uses and abuses of technology. Students may register for no more than 6 hours at the 1000level.

## PHIL 1413 Introduction to Philosophy: God, Ethics and Justice

In this course the student is introduced to philosophy through a series of shorter philosophical excerpts from a variety of authors and periods. The focus will be on three issues: whether a divine being exists, how to understand the nature of ethical standards, and what constitutes political justice. The goal throughout is to develop skills of critical analysis and self-expression, while coming to understand some of our culture's most influential thinkers. Students may register for no more than 6 hours at the 1000-level.

PHIL 1423 Introduction to Philosophy: Freedom, Mind and Knowledge In this course the student is introduced to philosophy through a series of shorter philosophical excerpts from a variety of authors and periods. The focus will be on three issues: whether humans genuinely exercise free choice, how to understand the relation between body and mind, and what constitutes human knowledge. The goal throughout is to develop skills of critical analysis and self-expression, while coming to understand some of our culture's most influential thinkers. Students may register for no more than 6 hours at the 1000-level.

## PHIL 2006 Ancient Philosophy

The conception of the human soul in Plato and Aristotle. Consideration may also be given to thinkers such as Heraclitus, Parmenides, Epictetus, Sextus Empiricus, and Plotinus. The forms of human knowledge, the human political condition and the ultimate nature of reality will also be topics of study.

## PHIL 2016 Early Modern Philosophy

The course begins with an overview of the scientific revolution and proceeds to a comparison of the reactions of the Continental Rationalists and the British Empiricists to the new science. Authors to be studied include: Descartes, Spinoza, Leibniz, Locke, Berkeley, and Hume. The course concludes with an introduction to the philosophy of Immanuel Kant, whose work is the culmination of early modern philosophy.

## PHIL 2023 Nineteenth-Century Philosophy

Post-Kantian European philosophy, with emphasis on Hegel. Topics considered include self-consciousness, human freedom and political order, the grounds of knowledge, the nature of religion, and the possibility of a systematic science of philosophy. Other figures studied may include Fichte, Schelling, Schopenhauer, Marx, Nietzsche, Kierkegaard.

## PHIL 2103 Aesthetics

In this introduction to aesthetics a number of philosophically important questions provoked by art will be addressed. The course will cover both classical and contemporary responses to these questions, and will focus on such issues as the definition of "art," the objectivity of claims about beauty and artistic worth, and the nature of the creative process.

## PHIL 2223 Existentialism

The Existentialist "revolt" in philosophy was an attempt to focus attention upon the implications of modern Western society for the individual who must live in that society. The origins of this movement, as well as its influence in theology, psychology, and the arts, will be examined.

## PHIL 2233 Philosophy and Feminism

Feminist philosophy became a major voice in the twentieth-century, challenging many traditional views in areas as diverse as politics, ethics, aesthetics, and the theory of knowledge. Drawing primarily on writings by women, the major developments of feminist thought will be studied. The relation of feminism to other contemporary philosophical movements such as Marxism, Pragmatism, Existentialism, and Post-Modernism will also be considered.

## PHIL 2303 Critical Perspectives on Environmental Issues

This course addresses conceptions of the relationship between humans and nature. The course will foster an analytic approach to environmental issues while recognizing the broad range of social, scientific, and philosophical themes involved. The aim will be to develop a clear and comprehensive understanding of environmental issues, an understanding which can serve as the basis for ethical and critical evaluation of the consequences of human actions for the environment.

## PHIL 2306 Ethics

This course is a critical study of the nature and justification of ethical judgements, with an analysis of key concepts such as contract, justice, responsibility, welfare, rights, duty, and virtue. We will examine selected readings by ancient, early modern and contemporary thinkers.

## PHIL 2403 Philosophy of Religion

This course addresses philosophical issues raised by traditional belief in God. Why care whether God exists? Why care whether belief in God is rational? Does the rationality of belief in God depend on the evidence for, and against, God's existence? What is the best evidence for and against? What bearing does God have on human morality? Prerequisite: one year of university study.

## PHIL 2503 Medieval Philosophy

A study of theoretical problems posed by the conjunction of revealed religion and philosophy from the third century C.E. to the Renaissance. The ideas of the central figures will be examined through selections of original sources and discussions of themes (e.g. knowledge of God, theory of knowing, theory of being).

## PHIL 2713 Biomedical Ethics

Recent advances in medicine and the biological sciences raise pressing moral and legal questions as to their proper use and control. Experimentation on human subjects, organ transplants, genetic control, behaviour modification, active and passive euthanasia, and the question of priorities in health care, against the background of both natural rights and utilitarian considerations. Prerequisite: one year of university study.

## PHIL 2803 Metaphysics

We will explore such metaphysical issues as the following: What is causation? Are there non-existent things? Can there be ordinary physical objects in spite of their vagueness? Can distinct physical things coincide in space and time? Are there possible worlds besides the actual world? Is time-travel possible? Is the passing of time an illusion? Prerequisite: PHIL 1106, 1206 or 1406 or permission of Department.

## PHIL 2813 Logic 1

Introduction to logic with emphasis upon the analysis and evaluation of non-deductive reasoning. No previous philosophy courses required.

## PHIL 2823 Logic 2

Introduction to symbolic logic. Symbolism is developed for the analysis and evaluation of arguments. No previous philosophy courses required.

## PHIL 2913 Philosophy of Science

An introduction to the philosophical foundations of scientific theories. Topics to be discussed include the interpretation and confirmation of scientific theories, reduction, and scientific explanation, causation and laws. The course raises conceptual issues which fall between science and philosophy, as well as broader epistemological issues concerning theory change and the concept of progress in science.

## PHIL 3013 Existentialism and Literature

A study of the idea of human existence in philosophers such as Sartre, Heidegger, de Beauvoir, Merleau-Ponty, Cixous, and Derrida, with the primary focus on the place of expression within the context of human freedom. This foundation will be used to study the nature of literature in general while using literary works to develop these views. Selections might be drawn from Homer, Joyce, Garcia Marquez, Kafka, Camus, Wittig, Nin, de Sade, Kinsella.

## PHIL 3113 Kant: The Critique of Pure Reason

Students will be introduced to the foundations of Kant's critical philosophy through close examination of selected passages in the first Critique. An introduction to topics in the secondary literature on Kant may also be provided. Prerequisite: two previous halfcourses in PHIL or permission of Department.

## PHIL 3203 Justice and Law: Rights, Laws and Judges

This course explores the question of constitutional rights. What rights should our constitution provide? Can constitutional provisions be given a strict legal interpretation, or does constitutional interpretation require judges to apply their own moral beliefs? Should unelected judges have the authority to strike down legislation just because, in their view, it violates rights such as freedom of expression and equality? Prerequisite: one year of university study.

## PHIL 3213 Justice and Law: Private Law

This course is a philosophical treatment of issues in the private law of tort and contract. Tort law is concerned with personal injury. Is fault the right way of looking at this issue? Perhaps a robust form of social insurance provides a better approach to injuries. Moreover, what contracts count as fair? When should contracts be reversed by the courts? Prerequisite: one year of university study.

## PHIL 3223 Kantian Practical Reason

Kant aims to reveal that the demands of morality apply equally to all, irrespective of empirical considerations such as race, ethnicity, culture and religion, among others. in an age of moral fragmentation, the Kantian model offers the optimistic promise of a shared moral community, with reciprocal moral rights and obligations.

## PHIL 3313 Philosophy of Mind

An examination of some contemporary accounts of the nature of mind and its relation to the body. Topics to be covered will include mind-body identity theory, logical behaviourism, functionalism, and the idea of personal identity.

## PHIL 3513 Plato

An introduction to the philosophy of Plato is provided through a detailed study of selected dialogues.

## PHIL 3533 Aristotle

An introduction to the philosophy of Aristotle with an emphasis on his metaphysical, ethical and epistemological writings.

## PHIL 3553 Contemporary Analytic Philosophy

A survey of major landmarks in the development of contemporary analytic metaphysics, epistemology, and philosophy of language, and a critical examination of some central issues. Prerequisite: PHIL 1106, 1206 or 1406 or permission of Department.

## PHIL 3613 Contemporary Continental Philosophy

A study of the work of three or four European thinkers such as Heidegger, Foucault, Derrida, Wittig, Habermas, Cixous, Gadamer, Deleuze, Benjamin and Adorno considering such issues as the nature of power in society, the relation between art and politics, hermeneutics and deconstruction, gender and self-identity, alienation and human freedom, and feminist politics.

## PHIL 3903 Epistemology

A systematic examination of central topics in contemporary theory of knowledge: What is it to know anything? What kinds of knowledge are there? What are the sources of knowledge? Are there limits to what can be known? Does knowledge require foundations? Under what conditions are we entitled to advance knowledge-claims? What is the relation between knowing, believing and having reasons for belief?

## PHIL 4113 Topics in Social and Political Philosophy

This course examines selected concepts, themes, or traditions within the field of social and political philosophy. Specific course content in any given year will be available from the Philosophy department.

## PHIL 4853 Philosophical Topics

An opportunity to do advanced study of a particular philosophical issue, thinker or period. The content will vary yearly.

## PHIL 4913/23 Directed Readings in Philosophy 1/2 PHIL 4996 Honours Thesis

## PHYSICS

Note: the second digit of each physics course number specifies the following: o-General, 1-Mechanics, 2-Electromagnetism, 3-Thermodynamics, 4-Quantum Physics, 5-Special Topics, 6-Laboratory-based course.

## PHYS 1013 Introductory Physics 1

Classical mechanics, including kinematics, dynamics, energy, systems of particles, rotational motion, oscillations, waves and sound. Topics are developed using vectors and elementary calculus. (3h lecture/3h studio) Only one of PHYS 1013 or 1053/1063 can be
offered for credit. Prerequisite: Grade 12 physics recommended. Corequisite: MATH 1013.

## PHYS 1023 Introductory Physics 2

Electric and magnetic fields and modern physics. Topics include Gauss's law, electric potential, capacitors, Ohm's law, D.C. circuits, Faraday's law, inductance, and topics in modern physics. (3h lecture/3h studio) Prerequisite: PHYS 1013 or 1063; Corequisite: MATH 1023.

## PHYS 1053 General Physics I

A general, non-calculus introduction to physics. Topics from classical mechanics such as one-dimensional kinematics, vectors, projectile motion, dynamics, energy, momentum, rotation, oscillations and vibrations, and an introduction to wave properties of light and sound. Applications from the fields of geology, biology, the health and environmental sciences are introduced as appropriate. Only one of PHYS 1013 or 1053/1063 can be offered for credit. (3h lab/tutorial) Prerequisite: NS Grade 12 Mathematics.

## PHYS 1063 General Physics 2

A continuation of PHYS 1053; a general, non-calculus introduction to physics. Topics include a continuation of waves, sound, light and optics, electricity, magnetism, fluids, thermal properties of matter, and/or modern physics. Applications from the fields of geology, biology, the health and environmental sciences are introduced as appropriate. (3h lab/tutorial) Only one of PHYS 1013 or 1053/1063 can be offered for credit. Prerequisite: PHYS 1053 or equiv.

## PHYS 1513 Astronomy I - Observational Methods and Solar System

This course is the first part of a general introduction to astronomy. It emphasizes the night sky and objects in our solar system. The instructor discusses space science, telescopes, cameras and other instruments used in the study of astronomy. Observation sessions are included. Antirequisites: Credit cannot be obtained for both PHYS 1513 and IDST 1703. PHYS 1513 may not be offered as a credit for a physics major.

## PHYS 1523 Astronomy 2 - Stars, Galaxies and the Universe

This course is the continuation of Astronomy 1. Starting with the study of the sun, our nearest star, the course ventures into the realm of exploding stars, pulsars, black holes and other exotic phenomena in the universe. Other topics include star formation, nuclear fusion, nucleosynthesis and stellar evolution. Observation session will be held as weather permits. Prerequisite: PHYS 1513 Antirequisite: Credit cannot be obtained for both PHYS 1523 and IDST 1703. PHYS 1523 may not be offered as a credit for a physics major.

## PHYS 1543 Energy

Topics include a physical perspective of energy, sources of energy, constraints on energy use, predictions of energy demand, electric utility system, energy conversions, issues in energy resources and resources in support of the energy economy, details of different power plants, alternate energy sources such as wind, solar, small-scale hydro, and the consequences of our choices. PHYS 1543 may not be offered as a credit for a physics major.

## PHYS 1553 Physics of Music

An introduction to physics and psycho-physics of music. Topics include pitch, loudness and timbre; music production including modes of oscillation of mechanical systems, resonance, feedback, transmission and reflection; human voice and ear; modern methods of sound production using electrical analogue devices and digital computers; room reverberation and acoustics. PHYS 1553 may not be offered as a credit for a physics major.

## PHYS 2113 Classical Mechanics

Vector calculus is employed in treating the motion of particles and systems. This course is an excellent choice for students wishing to experience the power of mathematics as a tool in describing easily-visualizable phenomena. Specific problems such as oscillations, motion under a central force, the two body problem, motion in a rotating coordinate system and relativistic motion are analyzed. (3h lab) Prerequisite: PHYS 1023 or equivalent, MATH 2723, Corequisite: MATH 2753.

## PHYS 2203 Introductory Electronics

This course introduces the student to basic circuit theory and the fundamentals of linear electronics. The emphasis will be on designing and building practical circuits such as power supplies, amplifiers and filtering/ signal processing circuits. Theory will be introduced to explain the behaviour of modern semiconductors. (6h lecture/lab) Prerequisite: One of PHYS 1023, 1063 or equivalent background in electricity.

## PHYS 2213 Data Acquisition, Measurement and Control

Computer based data acquisition and process control is used extensively in science and engineering. This course introduces students to the techniques required to use computers to read, store and analyze experimental data as well as controlling experiments in real time. Topics covered include a programming language, computer architecture, signal conditioning and processing, and a variety of interfacing techniques. A major component of the course is an extended project involving interfacing a computer to an experiment. A rudimentary knowledge of computer programming is recommended. (6h lecture/lab) Prerequisite: PHYS 2203. Antirequisite: Credit cannot be obtained for both PHYS 2213 and CHEM 4833.

## PHYS 2413 Introductory Quantum Physics

Fundamental concepts of modern quantum theory such as de Broglie waves, particle diffraction, wave particle duality, indeterminacy, and the correspondence principle. Schrodinger's equation is made plausible and is solved for simple physical systems. Applications in the fields of atomic and molecular physics are discussed. Appropriate for students intending to teach physics in secondary schools, or proceeding to advanced courses requiring an understanding of quantum physics. (3h lab) Prerequisite: PHYS 1023; Corequisite: MATH 2723.

## PHYS 2523 Optics

Selected topics in geometrical and physical optics are studied in detail to give both a knowledge of the basic phenomena associated with the propagation of light waves, and an appreciation of the design and limitations of optical instruments. (4h studio) Prerequisite: PHYS 1013 or 1053, MATH 1013.

## PHYS 3113 Advanced Classical Mechanics

Topics include the Lagrangian and Hamiltonian formulations of classical mechanics.
Prerequisites: PHYS 2113, MATH 2723, 2753; Corequisite: MATH 3713.

## PHYS 3223 Electronic Circuits

The field effect transistor, MOSFET and bipolar transistor are considered in detail. Their use in non linear and linear circuits is studied. Some work on feedback theory is included. (3h lab) Prerequisite: PHYS 2203.

## PHYS 3253 Electricity and Magnetism

Introduction to the theory of electric fields and continuous charge distributions, dielectrics, conductivity in metals, magnetic fields and magnetic materials, and Maxwell's equations. Prerequisite: PHYS 1023, MATH 2023 or 2753.

## PHYS 3333 Classical Thermodynamics

Relations between observed thermodynamic properties of substances are derived from certain basic postulates without taking account of the atomic structure of matter. Topics include conditions of equilibrium, processes, thermodynamic engines, thermodynamic potentials, Maxwell relations, phase transitions. Prerequisite: PHYS 2413, MATH 2023 or 2753.

## PHYS 3343 Statistical Physics

The physics of large assemblies of particles. Elements of probability theory, information theory and quantum mechanics are used to develop a purely statistical theory for dealing with these physical systems at a microscopic level. Emphasis is placed upon the derivation and use of the canonical probability distribution in physical systems in thermal equilibrium. Physical systems dealt with include the ideal and non-ideal gas, paramagnetism, black body radiation, Bose Einstein condensation, and free electron theory of metals. Prerequisite: PHYS 3333.

## PHYS 3423 Subatomic Physics

Nuclear properties and models, radioactive dating, fission, fusion, nuclear reactors, accelerators, the classification and properties of subatomic particles. Applications in areas such as ecology, dosimetry, medical physics and nuclear astrophysics are discussed. Prerequisite: PHYS 2413, MATH 2023 or 2753.

## PHYS 3433 Quantum Mechanics 1

Careful attention is given to establishing the fundamental concepts of the theory. Topics include discussion of the wave function and the Fourier integral; solutions of onedimensional systems, including the harmonic oscillator; operator methods and matrix mechanics; solutions of three-dimensional systems, including one-electron atoms; and time-independent perturbation theory. Prerequisite: PHYS 2413 (with a minimum grade of B-) or permission of the department, MATH 2023 or 2723, MATH 2013 or 2753.

## PHYS 3513 Introduction to Optoelectronics

This course provides an introduction to the rapidly developing field of optoelectronics. Topics will include laser physics, modulation, optical materials, active and passive optoelectronic devices, and the technologies of fiber-optical communication. (4h studio) Prerequisite: PHYS 2203, 2523 or permission of the Department.

## PHYS 3523 Modern Optics

Optics remains one of the most exciting fields in physics and this course is a continuation of PHYS 2523. Topics covered in this course may include: Fourier transforms, Fraunhofer and Fresnel diffraction, Gaussian optics, light propagation through optical systems, lasers, non-linear optics and holography. (4h studio) Prerequisite: PHYS 2523.

## PHYS 3613 Experimental Physics 3

A series of laboratory-based experiments designed to broaden the student's understanding of electric and magnetic fields, optics and modern physics. Among the techniques introduced will be the use of computers for controlling experimental variables and acquiring data. (3h lab) Prerequisite: PHYS 2213, 2413.

## PHYS 4213 Advanced Electromagnetism 1

Maxwell's equations are reviewed. From Maxwell's equations the solutions for plane electromagnetic waves in free space, plasmas, nonconductors and conductors are derived with an emphasis on behaviour at interfaces, including transmission, reflection and refraction, magnetic circuits, guided waves, and antenna theory. Prerequisite: PHYS 2113, 3253, MATH 2023 or 2753, 2723 or 2013.

## PHYS 4223 Advanced Electromagnetism 2

Green's theorem and the properties of special functions are used to solve electrostatic problems which have complex geometries. Approximations made in moving from a microscopic description to Maxwell's macroscopic equations are investigated. The intrinsic connection between electric and magnetic fields is discussed using relativistic transformations. Prerequisite: MATH 3713 or permission of Department; MATH 4753 recommended.

## PHYS 4433 Quantum Mechanics 2

PHYS 4433 is a continuation of PHYS 3433. The student is introduced to time-dependent perturbation theory and other approximation methods, as well as applications of the theory including many particle systems, selected topics on radiation, and scattering theory. Prerequisite: PHYS 3433, PHYS 3253.

## PHYS 4443 Solidstate Physics

A wide range of concepts from general physics are applied to models of perfect crystalline solids. Topics include crystal structure, interatomic forces, lattice dynamics, metals, semiconductors, superconductivity, and magnetism. Corequisite: PHYS 3343.

## PHYS 4513 Special Topics in Physics

Senior-level study of a particular topic in physics chosen to supplement an individual student's education in physics in an area not covered in the normal curriculum.
Prerequisite: 12h PHYS at 300o level with B- or better and permission of the Department.

## PHYS 4773 Fluid Dynamics

Topics may include the Navier-Stokes equations, streamlines, circulation, vorticity, irrotational flow, potential flow, laminar flow, gravity waves, dimensional analysis, geophysical fluid dynamics, turbulence, hydrodynamic instability.
Prerequisite/Corequisite: MATH 4753 or permission of the instructor. Cross-coded as MATH 4773.

## PHYS 4996 Honours Thesis

## POLITICS

Note: the third digit of each POLS course number specifies the following: o-Canadian, 1Special, 3-Reading, 4-Theory, 6-Law, 8-International Relations, 9-Comparative.

## POLS 1303 Law/Politics \& Government

This introductory course in politics and government introduces students to concepts, institutions of government, political processes, law, and political thought. No prerequisites. Students who have completed two years of study may not enroll in any political science 1000-level course except with permission of the department.

## POLS 1403 Global Politics, Law, and Culture

This introductory course explores changing concepts such as development, war and peace, international law and justice, and social movements that help us understand contemporary global politics. No prerequisites. Students who have completed two years of study may not enroll in any political science 1000-level course except with permission of the department.

## POLS 2000 Politics Passport

In this course, political learning is put into practice. Students will engage in some form(s) of "political activity," broadly defined. Engagement includes attending, participating in, organizing, and publicly commenting on political events of various kinds. Students will
document their engagement, which will then be verified by a faculty member for their passport. Required for Politics majors; not open to non-majors.

## POLS 2003: Introduction to Public Policy and the Public Good

This course examines the notion of a "public" and asks: what's the role of government in a liberal democratic society? Students are introduced to the public policy process with a focus on how issues emerge, ideas are framed, priorities are established, and agendas are set and managed.

## POLS 2006 Canadian Politics

An introduction to the basic principles, structures, and practices of Canadian politics and government. The course examines the institutions and constitutional foundations of Canadian government, as well as the processes, groups, and parties of Canadian politics.

## POLS 2013 Research and Methodology in the Social Sciences

The basics of the methodology of the social sciences. Material will cover different approaches to gathering data, as well as an introduction on how to analyze data. Emphasis is on the logic of political and social enquiry and the relationship between theory and the methods. Student involvement in a research project is an integral part of the course.

## POLS 2113 Politics of Knowledge: Science and Social Science

This course introduces the political contexts of (social) science research by exploring: What counts as truth? What is the relationship between power and knowledge? Do methodological frameworks and theoretical presuppositions affect results? Is it desirable or even possible to be objective? What political, historical, social and economic factors shape the future pursuit of knowledge production? Prerequisite: second year standing or better.

POLS 2343 Justice and the Good Life: Ancient and Medieval Political Theory What is justice? What is the best way for human beings to live together? Who should rule? These foundational political questions are discussed through examination of the earliest texts of Western political theory, from Ancient Greece to the Middle Ages.

POLS 2443 Legitimacy and Political Order: Early Modern Political Theory in a secular society, what rational arguments can be offered for political rule and inequality? Can inequality be rationally justified? Are people and governments bound by a "social contract"? These questions are explored through examination of political theories from the Renaissance to the 18th century.

POLS 2543 Revolution, Freedom, and Equality: Modern Political Theory
From the French Revolution to WWI, the Western world was transformed by political, economic, and social revolutions. Through political theories of this period, we explore the tensions between freedom and equality, and assess the appropriate pace of social change, including the role of violence in political affairs.

## POLS 2643 Selected Concepts in Political Argument

An examination of central concepts of political argument: power, rights, interest and the public interest, liberty, obligation, punishment, authority, duty, fraternity, sovereignty, and justice. Attention is given to evaluating arguments in which these concepts figure, as well as to the development of expositional, critical and analytic skills.

## POLS 2683 Global Politics

This course examines tensions between states and globalization. We review historical and changing patterns of conflict and cooperation in the international system. We study global governance organizations like the United Nations and processes of international law. We
discuss issues like terrorism, nuclear proliferation and peacekeeping and humanitarian intervention.

## POLS 2706 The Politics of Difference: Identity and Citizenship in Canada

The course examines different conceptions of equality and of identity to understand the intersection of cultural categories, self-understandings and political power. Particular attention will be paid to identity-based social movements, including those of FrenchCanadians, First Nations' peoples, feminists, and lesbians and gays.

## POLS 2783 Global Issues

This course covers the new generation of global issues and problem-solving processes involving states and other actors beginning with the global economy: trade, development, aid and debt. We then study actors and processes in other global regimes including human security, the environment, gender and human rights.

## POLS 2893 Comparative Politics I

This course introduces students to the basic methodological concepts and theories used in the evaluation and comparison of political systems. Students will examine the similarities and differences in the political development of different states, focusing on issues of democracy, authoritarianism, revolution, social movements, and civil society. No prerequisites.

## POLS 2993 Comparative Politics 2

This course introduces students to concepts and cases in the economic development of states in the developed and developing worlds. Students examine the roots of economic disparity between rich and poor countries and the political and social consequences of different models of economic development as practiced in different countries. No prerequisites.

## POLS 3013 The Politics of Gender

The literature regarding the participation of women in political life is surveyed. Attention is given to theoretical approaches to the critical understanding of gender and politics and to the political involvement of women in Canada and the United States, as well as in other political communities. Prerequisite: second-year standing (i.e. >24h completed).

## POLS 3043 Honours Seminar

This course, for Politics majors only, will normally be taken by honours students in their third year and will focus on central debates in the discipline. In particular, students will be exposed to different approaches in the study of politics. Students will present their thesis proposals in class. A grade of B+ is required to continue in the honours program.

## POLS 3063 Indigenous Law and Governance in Canada

Students focus on how the rich, complex nature of Indigenous knowledge (IK) informs contemporary Indigenous legal thought and governance across Canada. After an overview of diverse Indigenous knowledge systems, students are introduced to interpretations and expressions of IK in the law and governance. Prerequisite: second-year standing (i.e. >24h completed).

## POLS 3083 Issues in International Law

The basic principles of international law are examined in the context of contemporary global politics. The evolution of international law and its application among and across states and societies will be studied from a variety of theoretical, conceptual and normative perspectives. Particular emphasis will be placed on the laws of war; humanitarian law; and international criminal justice. Prerequisite: second-year standing (i.e. $\mathbf{> 2 4 h}$ completed).

## POLS 3103 The Politics of French Canada

This seminar course considers the relationship between language and politics in Canada, identifies and assesses the changes in Quebec since the Quiet Revolution, considers the political and policy concerns of the French-speaking minority who live outside Quebec and examines how the politics of gender, ethnicity and class are playing themselves out within Quebec. Prerequisite: second-year standing (i.e. >24h completed).

## POLS 3143 Contemporary Political Theory

This course surveys developments in 20th and 21st century political thought. Selected thinkers and themes are covered, with a focus on the close reading of primary texts.
Prerequisite: POLS 2343, 2443, or 2543.

## POLS 3183 U.N. and Contemporary Global Governance

The social, cultural, political and economic functions the United Nations in the international system will be examined. Specifically, the growth of Human Security and Humanitarian Intervention will be explored in light of the U.N.'s recent politicization. Next, the emergence of global governance models that include other international institutions and actors will be explored. Finally, the emerging horizons of contemporary assemblages of governance will be explored. Prerequisite: second-year standing (i.e. >24h completed).

## POLS 3213 The Politics of Water

This course will explore the dynamics of political conflicts over water scarcity, and will evaluate the ecological and economic impacts of different political approaches to ensuring water security. Drawing on case studies from Canada and around the world, particular attention will be paid to questions of water as a commodity and trade in water resources. Prerequisite: second-year standing (i.e. >24h completed).

## POLS 3303 Multiculturalism in Canada: Race, Rights and Citizenship

Questions of human rights, ethnicity and national identity, citizenship and multicultural policy underpin this seminar course on multiculturalism in Canada. Students will assess both the development of public policies, government programs and practices that will help to promote an inclusive society and the challenges and opportunities that arise in an increasingly ethnically diverse society. Prerequisite: second-year standing (i.e. >24h completed).

## POLS 3463 Law \& Politics in Canada

An introduction to the structure and functions of the judiciary and its role in the Canadian political process. Topics include the nature of judicial power and its constitutional framework in Canada, judicial appointments, and judicial policy-making. Prerequisite: second-year standing (i.e. >24h completed).

## POLS 3483 Globalization: Critical Perspectives

The course will provide an overview of the theoretical foundations and historical developments which form the context of the ongoing processes of neo-liberal economic globalization from post WWII to the present day. It will also address critical political, economic, environmental, feminist, and developing country perspectives on globalization. Prerequisite: second-year standing (i.e. $\mathbf{> 2 4 h}$ completed).

## POLS 3493 American Politics and Government

This course explores the structure of the American government, key policy issues, and aspects of American political culture that inform the practice of politicians at federal and state levels, as well as the political engagement of citizens. Prerequisite: POLS 2893.

## POLS 3503 Canadian Public Administration

The twin themes of bureaucratic power and bureaucratic accountability. in particular, attention will be paid to the classical and contemporary theories or organization, the structure and function of the Canadian Civil Service, and the various methods of limiting bureaucratic power. Prerequisite: second-year standing (i.e. >24h completed).

## POLS 3513 Gender and Development

This course explores how ideas about gender have influenced the ways women participate economically, socially, and politically in countries of the developing world and how the women's participation affects the development of these countries. Analysis of theoretical concepts is complemented by case studies from Latin America, South and Southeast Asia, Africa, and the Middle East. Prerequisite: second-year standing (i.e. $\mathbf{>} 24$ h completed).

## POLS 3543 Community Political Power

Consideration of the current literature on the theory and practice of democratic politics in small communities. Special attention is given to the exercise of political power in such communities and to the impact of the size of the community upon the integrity of democracy and the character of citizenship. Prerequisite: second-year standing (i.e. >24h completed).

## POLS 3583 New Issues in Security

The course discusses new concepts and challenges for security. Security now embraces military, environmental, economic, social and political sectors. Securitizing problems such as terrorism, gender, human rights, narcotics trade, organized crime, pandemics, and internet abuse has major consequences for state policies, international relations and international organization. Prerequisite: POLS 2683 or 2783 with B or better, or permission of the instructor.

## POLS 3593 Collective Action and Political Change

Drawing on current and historical cases from North America and around the world, as well as theoretical literature on civil society, social movements, and activism, this course explores the ways that individuals engage in collective action to pressure for political change. Attention is paid to the strategic, technological, cultural, and structural factors that facilitate and obstruct political change. Prerequisite: POLS 1403 or 2893 or permission of the instructor.

## POLS 3603 Canadian Provincial Politics

A comparative study of politics in selected Canadian provinces. The consequences of varying historical and cultural contexts will be examined with special attention to the similarities and differences in social economic structures, party systems and movements, leadership styles, political attitudes, and electoral behaviour. Prerequisite: second-year standing (i.e. >24h completed).

## POLS 3683 Biopolitics

Biological life is now a target of local, national and global politics. This course examines the politicization of life in war, development, public health, resource management, human rights and international law. Relationships with sovereignty, markets, nature, technology and culture are also explored. Historical and contemporary texts are used to examine positive, negative and post-biopolitical futures. Prerequisite: POLS 1403 and third year standing.

## POLS 3693 Politics of Latin America and the Caribbean

This course explores contemporary politics in Latin America and the Caribbean and the current trends that are shaping the region today. Topics covered include legacies of dictatorships and civil war, human rights movements, indigenous movements and
governance, populist politics, migration, and economic transformation. Prerequisite: POLS 2893 or 2993 or permission of the instructor.
POLS 3703 Issues in Canadian Politics
The study of politics by way of a systematic investigation of one or more issues of topical relevance in Canadian public policy. The particular issues of the course will be available from the department in the semester prior to its being offered. Prerequisite: second-year standing (i.e. >24h completed).

## POLS 3783 Pop Culture and World Politics

This course explores the inter-text between popular culture (i.e. Film, Music, Television, Performance and Painting) and the study, practice and production of world politics. The course builds on the cultural turn in international relations and develops the importance of aesthetics in appreciation and politicizing contemporary global drama. Prerequisite: POLS 1403 or permission of the instructor.

## POLS 3803 Politics and Government of Canadian Municipalities

The origins, development, and present legal positions of the various forms of local, regional and metropolitan systems of municipal government in Canada. Special attention is paid to the problems of urban government, the territorial extent of local government, and local community development. The position of municipal government within the federal states. Prerequisite: second-year standing (i.e. >24h completed).

## POLS 3833 Reading Course in Selected Topics

Supervised readings by individual advanced students. The course content will be submitted by the student for the approval of the department and will be strictly supervised. Prerequisite: permission of Department.

## POLS 3843 The Politics of Global Resistance

This course explores the emergence of global forms of resistance. It explores the political theory of resistance, then looks at different local and/or national examples of resistance, as well as those forms of resistance that seek to specifically address global issues and/or define themselves as strictly global actors. This course counts towards the political theory and international relations stream. Prerequisite: Third year standing or better.

## POLS 3883 The Politics of the Environment

We study Canadian and international environmental politics to identify and policy processes at the national and intergovernmental levels. We review the reluctance of the federal government to lead on Canadian environmental issues. We then evaluate international regimes on ozone, climate, species, whaling, forests and hazardous waste. Can sovereign states, divided on North-South concerns, cooperate on environmental problems? Prerequisite: second-year standing (i.e. >24h completed).

## POLS 3893 Politics and Government in Western Europe

This course explores the political systems of Western Europe in comparative perspective. Special emphasis will be placed on patterns of continuity and change in party systems, statesociety relations, and economic and social policy. Prerequisite: second-year standing (i.e. >24h completed).

## POLS 3903 Canadian Political Parties

A survey of the evolution of Canadian political parties, with particular emphasis on patterns of support, ideological change, and styles of leadership. Prerequisite: POLS 2006 with a grade of $B$ or better, or permission of the instructor.

## POLS 3936 Reading Course in Selected Topics

Supervised readings by individual advanced students. The course content will be submitted by the student for the approval of the department and will be strictly supervised. Prerequisite: permission of Department.

## POLS 3943 Politics of The Mass Media

The role, conduct, and political significance of the mass media will be considered from a number of theoretical perspectives. Attention will be paid to the practice and democratic role of the journalist, the relationship of language and politics, the impact of film and television on political culture, and the political economy of the mass media. Prerequisite: second-year standing (i.e. >24h completed).

## POLS 3983 Theoretical Approach World Pol

This course covers the key theories of international relations and world politics. Realism, Liberalism, Marxism, Feminism, Constructivism and Post-Structuralism will be explored. Readings will be selected from classic and contemporary writers. Prerequisite: secondyear standing (i.e. >24h completed).

## POLS 3993 Digital Democracy

Different theoretical approaches will be studied which are relevant to understanding the relationship between politics, science and technology. We will then examine the effects of computers, expert systems, videoconferencing, satellites, and other such technologies on: public policy; democratic values; international relations, national defence and security; political processes, national sovereignty, gender, class and ethnic cleavages. Prerequisite: second-year standing (i.e. >24h completed).

## POLS 4103 Canadian Federalism

The theory and practice of federalism, including inter-governmental relations, constitutional politics and the federal nature of Canadian society. Prerequisite: POLS 2006 with a grade of $B$ or better, or permission of the instructor.

## POLS 4143 Applied International Ethics

This course is a critical exploration of ethical dilemmas in contemporary international politics. A special emphasis will be placed on cosmopolitan and communitarian approaches to issues such as international justice, war, terrorism, global poverty, sovereignty, human rights, women's rights, the environment, and humanitarian affairs and intervention. Prerequisite: 54 credit hours and B in POLS 2683 or 2783, or permission of the instructor.

## POLS 4193 Comparative Federalism

A comparative study of experiments in federalism in contemporary federations. Among the subjects considered are the nature of federal societies, the creation and operation of federal institutions, the changing balance between national and regional governments, and the effectiveness of the federal system. A seminar course. Prerequisite: POLS 2893 or POLS 2993 with a grade of B or better, or permission of the instructor.

## POLS 4203 Approaches to the Study of Politics in the Maritimes

An exploration of political changes in Maritime Canada. Particular attention is paid to regional political cultures, electoral styles, party politics, leadership, federalism, Maritime Union, and public policy. Prerequisite: POLS 2006 with a grade of B or better, or permission of the instructor.

## POLS 4293 Politics of Development

This seminar course critically explores politics and economies of the Global South. Beginning with a discussion of the concept of "development", it subsequently explores legacies of colonialism, strategies of economic development and their political impact,
political transitions, and factors mobilizing global and local civil society. Prerequisite: POLS 2993 with B or better, or permission of the instructor.

## POLS 4303 Approaches to the Study of Canadian Politics

Explores both classical and modern analyses of Canadian politics. The course attempts to understand the interconnections between political culture, political institutions, party politics, and public policy in Canada and to draw conclusions about the nature of political power in Canada. Prerequisite: POLS 2006 with a grade of $B$ or better, or permission of the instructor.

## POLS 4343 Political Philosophy 1

This course develops ideas central to political philosophy by means of analytic and/or interpretive inquiry. The topic for each offering is available from the department. Prerequisite: one of POLS 2343, 2443, 2543, or 2643 with a standing of B or better, or permission of the instructor.

## POLS 4393 Approaches to the Study of Comparative Politics

A survey of major changes and divisions in the field of comparative politics since the 1950s. A review of the logic and methods of the comparative approach and an introduction to a variety of contemporary debates, interdisciplinary models and issues. Prerequisite: POLS 2893 or POLS 2993 with a grade of B or better, or permission of the instructor

## POLS 4403 Canadian Constitutional Law

An examination of the role performed by the judicial and legislative branches in constitutional protections in Canada. Topics include leading constitutional decisions of the Supreme Court of Canada and the major trends in Canadian constitutional law including the Charter of Rights and Freedoms and the division of powers. Prerequisite: POLS 2006 with a grade of $B$ or better, or permission of the instructor.

## POLS 4443 Political Philosophy 2

A seminar in political philosophy which examines either central concepts or important works in political philosophy. The particular content for each offering is available from the department. Prerequisite: POLS 2343, POLS 2443, POLS 2543, or POLS 2643 with a standing of $B$ or better, or permission of the instructor.

## POLS 4483 Politics of Global Technologies

This seminar explores the global political implications of new advances in science and technology. Specific attention is paid to the impact of cyber-technology, bio-technology, and nano-technology on political concepts like war, security, human rights, global governance and democracy. If our future is technological, what becomes of life? Prerequisite: 54 h and POLS 2683 or 2783 with B, or permission of the instructor.

POLS 4603 First Nations Peoples: Law, Politics and Policy in Canada This seminar course explores the socio-political, historical, legal, economic and cultural aspects of the decolonization and self-determination efforts of First Nations peoples in Canada. Students will explore the multiple dimensions of aboriginality, the evolution of Aboriginal-State relations, the legal battles for Aboriginal rights to land, resources, and self-government, and the evolving political status and aspirations of First Nations' peoples. Prerequisite: second-year standing (i.e. $\mathbf{>} 24 \mathrm{~h}$ completed).

## POLS 4643 Critical Political Theory

"Critical theory" refers to a tradition of holistic, interdisciplinary political theory grounded in a critique of domination. Thinkers studied may include Adorno, Baudrillard, Benjamin, Butler, Derrida, Foucault, Haraway, Jameson, and Marcuse. Emphasis on close reading and discussion of primary texts. Prerequisite: one of POLS 2343, POLS 2443, POLS 2543, or POLS 2643 with B or better, or permission of the instructor.

## POLS 4693 Democracy and the Market

This seminar explores contemporary challenges to democratic and democratizing states in the contexts of globalization and multiculturalism. Theoretical analysis concentrates on the relationship between economic and democratic development and how this relationship has influenced the demands for and distribution of rights and material benefits. Theoretical analysis will be illustrated with case studies from the developed and developing worlds. Prerequisite: POLS 2893 or POLS 2993 with B or better, or permission from instructor.

## POLS 4793 State, Power, Economy, Society

A survey of theories and models which have sought to explain the interrelationships among the state, the society, and the economy of a nation, among political power and economic and social development and underdevelopment. Prerequisite: POLS 2893 or POLS 2993 with a grade of B or better, or permission of the instructor.

## POLS 4803 Canadian Public Policy

The social, political, cultural, and institutional forces which shape the form and content of public policy, the rationality of the policy process, the mushrooming of state activities, and the actual impact of governmental programs. Prerequisite: POLS 2006 with a grade of B or better, or permission of the instructor.

## POLS 4843 Environmental Political Theory

This course examines whether or how the values of justice, democracy, and ecological sustainability can be mutually compatible. Competing visions of "the good life," strategies for political change, and conceptions of "nature," are examined in light of contemporary environmental crises. Prerequisite: one of POLS 2343, POLS 2443, POLS 2543, or POLS 2643 with B or better, or permission of the instructor.

## POLS 4883 Politics of Human Rights

This course examines what human rights mean, why they matter, and how they have come to influence contemporary global politics. We explore the political, legal and ethical dimensions of human rights standards from a variety of perspectives in Political Science and the subfield of International Relations. Prerequisite: 54h and POLS 2683 or 2783 with $B$, or permission of the instructor.

## POLS 4893 Theory and Politics of Citizenship

This seminar course explores questions of what citizenship means, how it develops, and how it is practiced in societies influenced by globalization and multiculturalism. Theoretical debates about the meaning of citizenship will be complemented by case studies of issues such as migration/immigration, multiculturalism in advanced democracies, and national struggles for the rights of women and indigenous peoples. Prerequisite: POLS 2893 or POLS 2993 with B or better, or permission of the instructor.

## POLS 4913 or 4916 Special Topics

Supervised readings by individual senior students. The course content, at a level consistent with other 4000-level POLS courses, will be submitted by the student for the approval of the department and will be strictly supervised.

## POLS 4983 The Politics of Asia/Pacific

This seminar explores modern and global issues affecting the Asia/Pacific community. The course explores three important analytic frameworks: global/regional, "glocal" and local. The global/regional focus explores institutional governance, security and economics issues before and after the Cold War. The "glocal" focus develops the competing flows that complicate the global/regional framework. The local focus explores how global connections emerge within local events. Prerequisite: POLS 2683 or POLS 2783 with B+ or better, or permission of the instructor.

## POLS 4996 Honours Thesis

## PSYCHOLOGY

## PSYC 1013 Introductory Psychology: Experimental Area

An introductory survey of psychology with emphasis on basic processes, including perception, learning, biological bases of behaviour, cognition, and basic research methods. Antirequisite: Credit cannot be obtained for both PSYC 1013 and PSYC 1113.

## PSYC 1023 Introductory Psychology: Applied Area

An introductory survey of psychology with emphasis on social psychology, developmental psychology, abnormal behaviour, psychotherapy, personality and assessment.
Prerequisite: PSYC 1013. Antirequisite: Credit cannot be obtained for both PSYC 1023 and PSYC 1123.

## PSYC 1113 Introductory Psychology 1 for Majors

An introductory survey of psychology with emphasis on basic processes, including perception, learning, biological bases of behaviour, cognition, and basic research methods. This course is restricted to Psychology majors, and includes a laboratory component. Nonmajors should register for PSYC 1013 instead. (1.5h lab). Antirequisite: Credit cannot be obtained for both PSYC 1013 and PSYC 1113.

## PSYC 1123 Introductory Psychology 2 for Majors

An introductory survey of psychology with emphasis on social psychology, developmental psychology, abnormal behaviour, psychotherapy, personality and assessment. This course is restricted to Psychology majors, and a laboratory component. Non-majors should register for PSYC 1023 instead. (1.5h lab). Prerequisite: PSYC 1113 or permission of the instructor. Antirequisite: Credit cannot be obtained for both PSYC 1023 and PSYC 1123.

## PSYC 2013 Research Design and Analysis 1

Introduction to empirical research methods used by psychologists. Although experimental methods will be emphasized, other research methods will be discussed in detail. The principal purpose is to help develop an understanding of basic concepts used in psychological research. (1.5h lab) Prerequisite: PSYC 1113/PSYC 1123 with C- or better and registration as a Psychology major, or permission of the instructor. Prerequisite or Corequisite: MATH 1213 or MATH 2213 or MATH 2233.

## PSYC 2023 Research Design and Analysis 2

An introduction to research designs and to statistical tools associated with these designs.
An examination of psychological research literature to give an opportunity to see how research methods and statistical tools are applied to solving problems in psychology. (1.5h lab) Prerequisite: PSYC 2013 with C- or better; Prerequisite or Corequisite: MATH 1223 or MATH 2223 or MATH 2243.

PSYC 2103 Social Psychology
An introduction to the methods, theories, and applications of social psychology. The study of how our thoughts, feelings, and behaviours are influenced by the real or imagined presence of other people. Topics include persuasion, conformity, prejudice, aggression, altruism, and attraction. Prerequisite: PSYC 1013 and PSYC 1023 OR PSYC 1113 and PSYC 1123.

## PSYC 2113 Abnormal Psychology

An overview of psychopathology, focusing on mental disorders as defined by the current version of the Diagnostic and Statistical Manual. Covers the history of abnormal psychology, classification and diagnosis of mental disorders, the main defining features of various disorder (including anxiety disorders, schizophrenia, mood disorders, and personality disorders), and different perspectives on causes and treatment. Prerequisite: PSYC 1013 and PSYC 1023 or PSYC 1113 and PSYC 1123.

## PSYC 2123 Personality

A review of personality with an emphasis on theory, the research supporting it, and the applied consequences of its use. Lectures and a minor theoretical or laboratory study. Prerequisite: PSYC 1013 and PSYC 1023 or PSYC 1113 and PSYC 1123.

## PSYC 2133 Physiological Psychology

Examines recent experimental and theoretical advances in the study of the biological bases of behaviour. Focuses on the manner in which the brain and other parts of the nervous system control various forms of behaviour (e.g., eating, drinking, sleeping, sex, aggression) and psychological processes (e.g., learning, remembering, dreaming). Prerequisite: PSYC 1013 or PSYC 1113.

## PSYC 2143 Introduction to Cognition

This course is an introduction to the study of mental processes used in learning, remembering, thinking, language, creativity, decision-making and problem solving. Emphasis will be placed on theories and the research methods used by cognitive psychologists. Prerequisite: PSYC 1013 or PSYC 1113.

## PSYC 2153 Developmental Psychology

This course serves primarily as an introduction to theory and research in developmental psychology. Select aspects of human physical, emotional, cognitive, perceptual and social development at various stages from conception through to adulthood are discussed.
Prerequisite: PSYC 1013 and PSYC 1023 or PSYC 1113 and PSYC 1123.

## PSYC 2163 Psychology of Gender

This course explores biological, psychological, and cultural influences on gender differences, and the implications of these differences for gender roles of women and men. The emphasis will be on research and theory aimed at understanding how and why women and men are different and/or similar. Prerequisite: PSYC 1013 and PSYC 1023 or PSYC 1113 and PSYC 1123.

## PSYC 2173 Sensory Processes

This course is an introduction to sensory and perceptual mechanisms of the five sensory systems. An emphasis will be placed on research and theory related to the link between physiology and perceptual abilities. Prerequisite: PSYC 1013 or PSYC 1113.

## PSYC 2183 Human Sexuality

A survey of theory and research concerning human sexuality. The course reviews methods and methodological problems in research on sexual behaviour. It covers the basic information about sexual physiology and function, sexual development and differentiation, sexual behaviour, attraction, intimacy, sexual orientation, and sexual
dysfunction. The emphasis is on psychological research in each topic. Prerequisite: PSYC 1013 and PSYC 1023 or PSYC 1113 and PSYC 1123.

## PSYC 2193 Women in Science

This course will explore issues affecting women in science and attempt to answer the questions: Why so few? How can we effect change? Through an examination of research on topics such as implicit bias, stereotyping, and messaging in popular culture, the barriers to women entering scientific fields and ways to challenge and overcome them will be explored. Prerequisite: 27 hours of university credits obtained. Antirequisite: Credit cannot be obtained for both PSYC 2193 and WGST 2193.

## PSYC 3013 Readings in Psychology

Reading and discussion with individual advanced students and staff members. Arranged to meet the needs of individual students. Topics to be decided. Students are expected to present a definite plan of study. Prerequisite: permission of Department.

## PSYC 3023 Honours Seminar

This course prepares potential and current honours students for thesis work. Critical evaluation of current controversies in the field is emphasized. Issues regarding graduate programs and careers in psychology are discussed. This course may be taken in third or fourth year, but is usually taken in third year. Prerequisite: Program GPA of 3.33 .

## PSYC 3053 Cognitive Neuroscience

The study of how the brain enables the mind is called Cognitive Neuroscience. This course will introduce you to Cognitive Neuroscience techniques (e.g., ERP, fMRI), as well as how such techniques have advanced our understanding of human cognition. We will cover topics such as object recognition, speech perception, memory, attention, reading, cognitive development, and cognitive disability. (1.5h lab) Prerequisite: PSYC 2023, PSYC 2133, PSYC 2143.

## PSYC 3083 Sensation and Perception

Reviews research, theory and methodologies related to the study of sensation and perception in various sensory modalities (vision, audition, touch). An emphasis is placed on both physiological and cognitive determinants of our ability to extract and use information available in our sensory environment. Laboratory assignments will be used to explore theoretical and methodological issues in sensation and perception. (1.5h lab) Prerequisite: PSYC 2023, PSYC 2173.

## PSYC 3133 Comparative Psychology

Examines animal behaviour across species to enhance our understanding of human behaviour. Topics will include cross-species differences in behavioural development, learning, cognition, reproductive behaviour and mating strategies, as well as social behaviour. These topics will be examined from an evolutionary perspective. This course is complementary to BIOL 3143. Prerequisite: PSYC 2013 (or KINE 1113) or BIOL 3143; PSYC 2133 recommended.

## PSYC 3183 Industrial/Organizational Psychology

The application of psychological principles to business and industry. Emphasis on psychological research concerning the influence of organizational and social factors on behaviour and experience. Topics include organizational design, communication networks, power, stress, interorganizational relations. Prerequisite: PSYC 2013 (or KINE 1113); PSYC 2103 or PSYC 2123.

## PSYC 3193 Health Psychology

The application of psychological principles to promoting health behaviour and to understanding, treating, and preventing illness. Topics may include behaviourial and psychological factors in illness; personality and disease; coping with acute and chronic illness; adherence to treatment; health education and primary prevention programs; stress management; management of pain and discomfort; and the role of the treatment setting. (1.5 h lab) Prerequisite: PSYC 2023; 2113 or 2123.

## PSYC 3243 Advanced Research Methods in Psychology

Advanced research design and statistics relevant to psychological research. Topics include observational, quasiexperimental, survey, between-subject and within-subject designs. Opportunities will be provided to build skills related to research design and critique, as well as data analysis using computers. This course is normally taken in third year, as it is required for admission to the honours program. Prerequisite: PSYC 2013 (or KINE 1113) and 2023.

## PSYC 3323 Hormones, Drugs, and Behaviour

Examines the effects of hormones and drugs on naturally occurring and experimentally controlled behaviour. Focuses on the mechanisms by which hormones and drugs exert their influences on the nervous system to induce altered states of consciousness and changes in mood, emotion, motivation, and information processing. Prerequisite: PSYC 2013 (or KINE 1113), 2133. Antirequisite: Credit cannot be obtained for both PSYC 2063 and PSYC 3323.

## PSYC 3353 Advanced Developmental Psychology

This course will involve an in-depth analysis of issues in developmental psychology. The content will include both theoretical and current research perspectives in developmental psychology. Laboratory assignments will be used to demonstrate research methodologies, theories and research findings in developmental psychology through active involvement in small research projects. (1.5h lab) Prerequisite: PSYC 2023, 2153.

## PSYC 3363 Advanced Social Psychology

Advances in the study of social thoughts, feelings, and behaviours. Emphasis on theories and methodology. Laboratory assignments give hands-on experience in conducting social psychological research. (1.5h lab) Prerequisite: PSYC 2023, 2103.

## PSYC 3373 Clinical Psychology

Roles and functions of clinical psychologists will be presented, with special emphasis on psychological assessment, therapeutic intervention, and community consultation. Also included in the course will be issues in method and inference associated with clinical research, and ethical issues that arise in clinical psychology. Prerequisite: PSYC 2013 (or KINE 1113), PSYC 2113; PSYC 2123 recommended.

## PSYC 3383 Human Neuropsychology

This course covers brain-behaviour relationships within the context of experimental and clinical neuropsychology. Following an overview of neuroanatomy and neuropsychological assessment, specific neuropsychological conditions are covered such as epilepsy, amnesia, aphasia, agnosia, apraxia, and diseases such as Alzheimer's Disease and Huntington's Disease. Prerequisite: PSYC 2013 and PSYC 2133, or BIOL 3063.

## PSYC 3613 Psycholinguistics

This course will examine the psychological and the neurobiological factors responsible for the perception, comprehension, and production of language. We will explore language processes in healthy adults, as well as language acquisition during infancy and childhood. Current theories of language disorders and second language learning will also be discussed. Prerequisite: PSYC 2013 (or KINE 1113), 2153.

Forensic Psychology is the application of psychological theory and research to the judicial system. The field of forensic psychology deals with a variety of topics such as police investigations, psychopathy, eyewitness testimony, jury decision-making, child victims and witnesses, and mental illness in court. Prerequisite: PSYC 2013 (or KINE 1113) and PSYC 2103, or PSYC 2113, or PSYC 2143.

## PSYC 4013 Readings in Psychology

Designed to broaden the student's understanding of the field and to study an area of special interest in depth. Students are expected to present a plan of study that usually involves extensive literature review and writing a paper. Prerequisite: permission of department.

## PSYC 4053 Advanced Seminar in Psychopathology of Childhood

An introduction to the field of behaviour disorders of children and adolescents. An examination of crises in normal development, diagnostic considerations, and the incidence of emotional and behavioural disorders in childhood. Within this perspective, a survey of the predominant syndromes, their etiology, and current treatment approaches. Implications for prevention programs are discussed. Prerequisite: PSYC 2013 (or KINE 1113), 2113, 2153 and restricted to students who are registered in their third or fourth year of study.

## PSYC 4073 Special Topics in Psychology

The focus and instructor will vary as determined by the department. The topic matter will be of general interest and applicability to all psychology majors. The course will not count towards either the Neuroscience Option or the Applied Option. Prerequisite: Restricted to third or fourth year students with backgrounds appropriate to the particular subject matter, as determined by the course instructor.

## PSYC 4083 Advanced Seminar in Tests and Measurements

An introduction to the development and use of psychological tests for research and clinical assessment. The review of test construction and evaluation will examine methods of item analysis, reliability, and validity. Prerequisite: PSYC 2013 (or KINE 1113), PSYC 2113 or PSYC 2123 and restricted to students who are registered in their third or fourth year of study.

## PSYC 4103 Advanced Seminar in Theories of Psychotherapy

The course will survey the major theories of psychotherapy, their conceptual foundations, and main principles. It will also examine the research that supports these theories and the effectiveness of their techniques and applications to psychological disorders. Individual, group, and family therapies will be reviewed. Prerequisite: PSYC 2013 (or KINE 1113), 2113; recommended: PSYC 2123, 3373. Restricted to students who are registered in their third or fourth year of study.

## PSYC 4173 Advanced Seminar in Social Cognition

The study of how people think about people. Review of the theories and methodologies used to investigate the structures (self-, person-, role-, and event-schemata) and processes (expectations, attributions, and inferences) underlying person perception and person memory. Student-conducted seminars on selected topics and issues (reactions to loss of psychological control; factors influencing the development of self-schemata).
Prerequisite: PSYC 2013 (or KINE 1113), 2103 and restricted to students who are registered in their third or fourth year of study.

## PSYC 4183 Advanced Seminar in History and Systems of Psychology

This course will review major ideas in psychology and their historical development relevant to the rise of modern psychology. Some of the major themes, topics, and problems tackled by psychology will be examined in their historical contexts including controversies regarding empiricism versus rationalism, heredity versus environment, free will versus determinism, normality versus abnormality, motivation versus behaviour, mind versus brain, and others. An aim of the course is to encourage the critical examination of the assumptions and foundations of psychology as a scientific discipline. The course is designed for students who plan to pursue advanced studies in psychology and is required for but not limited to honours students. Restricted to students who are registered in their third or fourth year of study.

## PSYC 4223 Research Project in Psychology

Designed to broaden the student's understanding of scientific research methods in one area of psychology through direct research experience. Students are expected to develop a plan of study that will involve original data collection and/or archival data mining. The statistical analyses, interpretation and write up of these data may also be involved. Prerequisite: permission of Department.

## PSYC 4323 Developmental Cognitive Neuroscience

This course will focus on select topics related to how age-related changes in neuroanatomy have been linked to cognitive development throughout the lifespan. An emphasis will be placed on reading and understanding current research. Prerequisite: PSYC 2023, 2133, 2153 and restricted to students who are registered in their third or fourth year of study.

## PSYC 4343 Neurodegenerative Diseases

This course will focus on recent scientific findings concerning the neuropsychological and the neurobiological changes associated with neurodegenerative diseases, such as Alzheimer's, Parkinson's, Huntington's, and multiple sclerosis. Prerequisite: PSYC 2023, PSYC 2133, PSYC 3383 or BIOL 3063 and restricted to students who are registered in their third or fourth year of study.

## PSYC 4413 Special Topics in Neuroscience

The focus and instructor will vary as determined by the department. The topic matter will be of particular interest to students in the Neuroscience Option, and course credit will be granted towards the Neuroscience Option; however, the course is open to any interested students with appropriate background. Prerequisite: Restricted to third and fourth year students with backgrounds appropriate to the particular subject matter, as determined by the course instructor.

## PSYC 4423 Special Topics in Applied Psychology

The focus and instructor will vary as determined by the department. The topic matter will be of particular interest to students in the Applied Option, and course credit will be granted towards the Applied Option; however, the course is open to any interested students with appropriate background. Prerequisite: Restricted to third or fourth year students with backgrounds appropriate to the particular subject matter, as determined by the course instructor.

## PSYC 4996 Honours Thesis

This course requires the student to propose and carry out a study and submit a thesis written according to American Psychological Association format and regulations provided by the university honours committee. The thesis is supervised by a Psychology faculty member. The thesis grade is determined by the thesis supervisor and an additional Departmental faculty member. The thesis must be presented orally in a symposium organized by the Department. Prerequisite: open only upon permission of thesis supervisor and department.

## SOCIOLOGY

## SOCI 1006 Introductory Sociology

A general introduction to sociological thought. The basic forms of social structure and social process. Emphasis is placed on the nature and analysis of culture, group life, socialization, and the major social institutions in modern society.

## SOCI 1013 Introduction to Canadian Society

This course introduces sociological concepts, principles, and approaches through a focus on issues of relevance to Canadian society such as political economy, aboriginal rights, ethno-cultural diversity, and immigration, among others.

## SOCI 1023 Introduction to Human Societies

An introductory cross-cultural approach to some basic anthropological and sociological concepts, principles, theories, and issues designed to foster understanding of human diversity, past and present.

## SOCI 1033 Introduction to Sociology: Social Problems

This course introduces sociological concepts, principles and approaches through a focus on social problems in contemporary societies. Problems to be explored include but are not limited to: Consumerism, population growth, hunger, poverty, economic development, environment, disease, Indigenous groups and ethnic conflict, peasant protests and resistance, intimate violence, drug use, immigration and sexual orientation.

## SOCI 1106 Introductory Anthropology

A general introductory course in the study of humans from both a biological and cultural perspective, with a focus on socio-cultural anthropology. Attention will be given to the four-fields of anthropology and to how understanding diverse cultural practices can foster communication in our global world.

## SOCI 1113 Introduction to Cultural Anthropology

As an introductory course in cultural anthropology, the course is intended to familiarize students with customs, beliefs, behaviours and institutions held by people throughout the world. Emphasis is placed on understanding and interpreting cultural behaviour, and the meanings humans assign to cultural phenomena, in order to facilitate communication and dialogue.

## SOCI 2003 Introduction to Social Research

An introduction to the ways sociologists and socio-cultural anthropologists conduct research. Students will develop an understanding of qualitative and quantitative methodological principles with an emphasis on qualitative research. Prerequisite: 6 h from SOCI 1006, 1106, 1013, 1023, 1033, 1113 or equivalent. A $C$ - or better is required to register in SOCI 2003.

## SOCI 2013 Introduction to Social Data Analysis

An introduction to basic skills in quantitative research methods with a focus on descriptives. Students will focus on SPSS. Prerequisite: SOCI 2003 or permission of the instructor. A C- or better is required to register in SOCI 2013.

## SOCI 2103 Introduction to Classical Social Theory

An overview of varieties of sociological theorizing through a focus on major nineteenth and twentieth-century examined in social and historical context. Prerequisite: 6 h from SOCI 1006, 1106, 1013, 1023, 1033, 1113 or equivalent. A $C$ - or better is required to register in SOCI 2103.

## SOCI 2113 Issues in Developing Societies

Current development issues confronting the peoples of the majority world are introduced. Topics may include: conventional and alternative models of societal development; imperialism; wealth creation and impoverishment; class, ethnic and gender dimensions of international development; forced migration and displacement; reform and revolution. Prerequisite: 6 from SOCI 1006, 1106, 1013, 1023, 1033, 1113 or equivalent.

## SOCI 2123 Ethnic and Race Relations: A Canadian Introduction

A brief review of fundamental concepts and models is followed by case studies of linguistic, ethnic, racial and religious groups. Special topics include immigration policy, multiculturalism and employment equity. Prerequisite: second year standing.

## SOCI 2153 Social Inequality

Major theoretical explanations and empirical evidence will be used to explore why there are those who "have" and those who "have-not," in terms of income, wealth, power, and status. Topics may include: the magnitude of social inequality, trends in social mobility; inequality by gender, race, and other ascribed characteristics; selected consequences of social inequality. Prerequisite: 6h from SOCI 1006, 1106, 1013, 1023, 1033, 1113 or equivalent.

## SOCI 2223 The Sociology of Work

Examines the history of work, inequalities between workers, and how work is structured and carried out from both descriptive and critical perspectives. Focusing on paid and unpaid work, the course also explores how work is a mechanism of social control and a cause of alienation, and how people resist these forces. Prerequisite: 6 from SOCI 1006, 1106, 1013, 1023, 1033, 1113 or equivalent.

## SOCI 2233 Technology and Society

This course introduces key issues and debates in the sociology of technology. The focus will be on the interplay between technology, social practices and cultural values. Topics include the impact of social networking sites on friendship, how ideas about technology shape and direct social relations, and the social influences of emerging technologies. Prerequisite: 6 h from SOCI 1006, 1106, 1013, 1023, 1033, 1113 or equivalent.

## SOCI 2263 City, Space, Society

Introduction to key concepts and ideas in the social scientific study of cities. Examination of cities as spaces of intense contradictions, between equality and discrimination, wealth and poverty, and individuality and conformity. Prerequisite: 6 h from SOCI 1006, 1106, 1013, 1023, 1033, 1113 or equivalent.

## SOCI 2323 Sociology of Families

A theoretical and empirical review of the changing nature of families in response to social and economic forces over time. The issues will include partnering, parenting, intimate relations, gender roles, divorce, socioeconomic inequalities, work and family violence. Topics will be cross-cultural and Canadian. Prerequisite: 6 h from SOCI 1006, 1106, 1013, 1023, 1033, 1113 or equivalent.

## SOCI 2333 Sociology of Religion

An introduction to the sociology of religion, paying particular attention to trends and current issues in Canada. Topics include: grand theories of religion's universality; religion vs spirituality; modern sects; secularization; Conservative vs. Mainline Protestants; Catholics inside and outside Quebec; sexism in Christianity; new religious movements. Prerequisite: second year standing.

## SOCI 2343 Sociology of Aging

An introduction to aging in light of sociological theories and current research; comparative analysis of aging in traditional and industrialized societies, with an emphasis on Canadian society. Prerequisite: 6 h from SOCI 1006, 1106, 1013, 1023, 1033, 1113 or equivalent. SOCI 2343 is open to those registered in the Health Sciences Option without the usual prerequisites.

## SOCI 2353 Community Development with the Rural Elderly

The identification of effective community development strategies for working with and for older persons and their families. Four main population groups are studied: the independent elderly, the dependent (institutionalized) elderly, those from non-English speaking cultures, and older women. Emphasis is placed on the differences between rural and urban communities. Social policy programs are examined in terms of their impact on community development. Prerequisite: 6 h from SOCI 1006, 1106, 1013, 1023, 1033, 1113 or equivalent. SOCI 2353 is open to those registered in the Health Sciences Option without the usual prerequisites.

SOCI 2363 Women and Aging
This course will explore the sociological relevance of issues related to the social, demographic, political and economic factors, which are major determinants to the wellbeing of aging women. Prerequisite: SOCI 2343 or 2353.

## SOCI 2403 Gender and Sexuality I

A survey of socio-cultural perspectives and research findings in the areas of gender differences, gender inequalities, gender relations and diverse sexualities. Prerequisite: 6 h from SOCI 1006, 1106, 1013, 1023, 1033, 1113 or equivalent.

## SOCI 2413 First Nations and Aboriginal Peoples of Canada

The conquest and subsequent (ill) treatment of First Nations by Canada followed by a review of current issues. Particular attention is paid to the Maritimes. Topics include: poverty/economic dependency; modern treaties; the status of Aboriginal women; residential schools; over-representation in jail; Aboriginal rights; self-government and Nunavut. Prerequisite: second year standing.

## SOCI 2533 Popular Culture and the Media

A survey of approaches to popular culture as an arena of domination and resistance. Focus is on representation, identity and difference in a variety of popular media forms.
Prerequisite: 6 from SOCI 1006, 1106, 1013, 1023, 1033, 1113 or equivalent.

## SOCI 2553 Sociology of Education

The role of schooling in society with particular focus on who gets what type and amount of schooling, the formal and informal workings of school systems and cultures, the social consequences of schooling, and progressive education. Prerequisite: 6 h from SOCI 1006, 1106, 1013, 1023, 1033, 1113 or equivalent.

## SOCI 2563 Social Movements

Organized attempts to promote social change. Emphasis is on substantive investigation of the impact of social class, gender, and racialization on the social origins, development and success or failure of a variety of social movements. Prerequisite: 6 h from SOCI 1006, 1106, 1013, 1023, 1033, 1113 or equivalent.

## SOCI 2623 Community Organization and Development

Analysis of community organization as a basic process in social structure; its nature, need, and growth. Treatment of community planning agencies of all types. Major emphasis is on the coordination of social services and institutions for the maximum benefit of the community. Prerequisite: 6 from SOCI 1006, 1106, 1013, 1023, 1033, 1113 or equivalent.

SOCI 2633 Sociology of Health and Healthcare
An investigation of social factors and forces that affect health, illness and health care. The roles of health care providers, the state and corporate interest groups in shaping experiences of health and illness and in determining the provision of healthcare will be analyzed from socio-historical, gendered, racialized and class perspectives. Prerequisite: 6 from SOCI 1006, 1106, 1013, 1023, 1033, 1113 or equivalent. SOCI 2633 is open to those registered in the Health Sciences Option without the usual prerequisites.

## SOCI 2713 Sociology of Deviance

An examination of the social processes involved in the creation and definition of deviance. Topics may include mental illness, drug use, youthful deviance, as well as organizational, corporate, and state deviance and criminalization. Prerequisite: 6 from SOCI 1006, 1106, 1013, 1023, 1033, 1113 or equivalent.

## SOCI 2723 Canadian Criminal Justice

The criminal justice system and the structure of legal regulation and enforcement in Canada. Topics may include policing, court processes, modes of punishment, youth justice, wrongful convictions, and minority groups in the justice system. Prerequisite: 6 h from SOCI 1006, 1106, 1013, 1023, 1033, 1113 or equivalent.

## SOCI 2753 Principles of Criminology

An introduction to some of the basic concepts of criminology and the sociology of law. Topics may include explanations of criminality, crime patterns and statistics, victimization, the role of the media, corporate and organized crime, and minority groups and crime. Prerequisite: 6 from SOCI 1006, 1106, 1013, 1023, 1033, 1113 or equivalent.

## SOCI 2853 The Anthropology of Magic and Religion

An examination of how belief systems and their symbolic representations give meaning to the universe and one's place in it. Topics to include the nature of ritual, the structure of myth, magic, witchcraft and how these beliefs contribute to social and cultural change. Prerequisite: 6 h from SOCI 1006, 1106, 1013, 1023, 1033, 1113 or equivalent.

## SOCI 3013 Contemporary Social Theory

A detailed overview of selected debates and theories within present-day sociology. Focus is on late twentieth and twenty-first century social theorists relevant to current social discourse. Prerequisite: SOCI 2103 or permission of Department.

## SOCI 3033 Theorizing Culture

An introduction to the main paradigms for the analysis and interpretation of culture. Emphasis is on processes of meaning making, identity formation, materialism, idealism, and the relative autonomy of culture. Prerequisite: SOCI 2103 with a C- or better, or permission of Department.

## SOCI 3043 Theories of Development and Revolution

Marxist theories of revolution which have emerged in the advanced and developing societies, theories of development and underdevelopment, and contemporary social issues in post-revolutionary socialist societies. Prerequisite: SOCI 2103 a C- or better, or permission of Department.

## SOCI 3093 Modern Social Thought

An examination of the emergence and development of modern, Western social thought, in its social and historical context. Topics may include Decadence, Revolutionary Marxism, Fascism, the Cold War, Existentialism, cultural rebellion, Feminism, Black Power, Structuralism, and Post-Modernism. Prerequisite: SOCI 2103 with a grade of C- or better, or permission of Department.

SOCI 3103 Quantitative Data Analysis
Development of skills in quantitative data analysis using SSPS and the writing of research papers. Examples used are primarily sociological, but examples from other relevant disciplines are included. This course is particularly useful for honours students planning to use quantitative analysis in their theses. Prerequisite: SOCI 2003 and 2013, with grades of $C$ - or better, or equivalent; restricted to sociology majors, third year standing.

## SOCI 3113 Qualitative Approaches to Social Analysis

A presentation and analysis of several theoretical issues and qualitative approaches to research in the social sciences, including hands-on methods projects, such as interviewing, participant observation and ethnography. Prerequisite: SOCI 2003 and 2013 with grades of C- or better, or equivalent; restricted to sociology majors, third year standing.

## SOCI 3133 Ethnic and Race Relations: Comparative Cases and Issues

A review of key international issues and case studies in ethnic and race relations. Topics include: racism: slavery; anti-Semitism; Protestant-Catholic relations in Northern Ireland; African-Americans; South African race relations; and ethnic nationalism in eastern Europe. Prerequisite: SOCI 2123 or permission of department.

## SOCI 3143 Social Welfare and Social Policy

This course examines, and critically evaluates, the social welfare system in Canada linking its history and ideological underpinnings to contemporary social policy and human services delivery. A variety of social welfare needs are explored and careful attention is paid to the lived effects of social policy based on gender, race, ethnicity, social class, abilities, age, and sexualities. Prerequisite: Third year standing and above.

## SOCI 3163 Research Design and Analysis

Students will design and undertake a social survey and carry out qualitative interviews. Topics covered may include: types of survey designs, sampling, designing questionnaires and qualitative interview schedules, coding, data entry, setting up computer files and doing preliminary data analyses. Prerequisite: SOCI 2003 and SOCI 2013 with grades of C- or better, or equivalent; restricted to sociology majors, third year standing.

## SOCI 3183 Rape \& Sexual Assault in Canada: A Socio-Historical View

Through legislation and academic scholarship, this course examines historical and contemporary socio-legal shifts and trends related to the crimes of rape and sexual assault in Canada. Prerequisite: 12 h of SOCI, or 6 h of SOCI and 6 h of WGST, or permission of department.

## SOCI 3223 Food as a Social Issue

An investigation of a variety of food-related topics, such as global food problems, the sociological factors in food consumption, Canadian food policy, the symbolic meaning of food, the role of gender, as well as the mass media in food choices. Prerequisite: 12 h SOCI completed (of which 3h can be WGST 1413) or 6h SOCI completed (of which 3h can be WGST 1413) plus NUTR 2323.

## SOCI 3253 Work, Family, and Gender

Examines how work in both formal and informal economies have been gendered over time and across societies. Topics explored may include the gender wage gap, occupational sex segregation, balancing work and childcare, the outsourcing of housework, and worker, state, and employer responses to these changing dynamics. Cross-listed with WGST.
Prerequisite: SOCI 2223 or 2323.

## SOCI 3363 Sociology of Death and Dying

A comparative investigation of the social construction of death and dying practises across different cultures. Special attention will be given to the notion of death as a socially accomplished phenomenon. Prerequisite: 12h SOCI completed including 1006 or 1106 or 6h from 1013/1023/1033/ 1113. SOCI 3363 is open to those registered in the Health Sciences Option without the usual prerequisites.

## SOCI 3373 Aging in Cross-Cultural Perspective

The meaning and process of aging and the roles and statuses of the aged in a variety of modern and historical cultures. A comparison of social policies concerned with aging in different countries. Prerequisite: 12 h SOCI completed including 1006 or 1106 or 6 h from 1013/1023/1033/1113.

## SOCI 3393 Special Topics in Death and Dying

A detailed examination into specific topics such as euthanasia/assisted suicide, grief and bereavement, children and death, suicide, religious and moral attitudes, AIDS, palliative care. Prerequisite: SOCI 3363.

## SOCI 3403 Gender and Sexuality 2

An advanced course that examines socio-cultural perspective, research findings and theory in the areas of gender differences, gender inequalities, gender relations, and social organizations of gender and sexuality. Prerequisite: 12 hours of Sociology, including 6 hours of Introductory Sociology and SOCI 2403.

## SOCI 3433 Ethnography: Writing Cultures

An ethnographic (ethnos Greek for 'nation' or culture, graphy used to refer to the writing of) investigation of a particular culture or region of the world. Focus is on the description, interpretation and analysis of experience to draw relevant comparisons between ourselves and others to foster understanding and better communication. Writing ethnography is an important component of the course. Prerequisite: SOCI 2003 and 2013 with grades of Cor better, or equivalent; restricted to sociology majors, third year standing.

## SOCI 3453 Reciprocity, Redistribution and Exchange

Analysis of the processes and systems around which economic and social life is organized in societies past and present. Theoretical and methodological issues addressed will include understanding the economy as embedded in social relationships and how surplus and scarcity, among other economic processes, are social constructs. Cross-cultural examples will be used. Prerequisite: 12h SOCI completed including 1006 or 1106 or 6 h from 1013/1023/1033/1113.

## SOCI 3543 Debates in Marxism

An examination of central debates in the development of Marxism in the Canadian and global contexts. Prerequisite: 12h SOCI completed including 1006 or 1106 or 6 h from 1013/1023/1033/1113.

## SOCI 3553 Sociology of the Arts and Artists

An introduction to the sociology of the arts and artists, through the examination of multiple sites and scenes of artistic production and consumption, from operas to homemade movies, and rock stars to folk artists. The arts will be treated as a set of social practices through which meaning is produced and contested. Prerequisite: $12 h$ SOCI completed including 1006 or 1106 or 6 from 1013/1023/1033/1113.

## SOCI 3593 Pacifism, Violence and Substantive Change

Many states, social movements, and sectors of civil society have long applauded pacifist ideas and motives to facilitate progressive social change. This course contextualizes and
deconstructs whether such measures support structural transformation. Prerequisite: $12 h$ SOCI completed including 1006 or 1106 or 6 from 1013/1023/1033/1113.

SOCI 3633 Issues in Health, Environment and Poverty: Communities at Risk The aim of this course is to introduce students to the issues of environmental health and poverty, which have created crisis conditions in communities and in family life. The course, which largely focuses on Canada, asks students to consider how communities manage their environments, which may be hazardous to the health and well-being of their members. Prerequisite: 12 h SOCI completed including 1006 or 1106 or 6 from. 1013/1023/1033/1113.

## SOCI 3703 Crime and Punishment

A cross-cultural and social historical examination of the social response to crime. Topics may include patterns of crime, the history of policing and forms of punishment, the evolution of the penitentiary, and comparative justice models. Prerequisite: 12 h SOCI completed including 1006 or 1106 or 6 from 1013/1023/1033/1113.

## SOCI 3733 Sociology of Addictions

This course examines the social construction of addiction, and the meanings attached to "substance abuse" and "recovery". Topics may include the history of alcoholism, processes of affiliation and resistance, the proliferation of Twelve-Step models, embedded technologies of power, addiction as a form of deviance, and theories of addiction. Prerequisite: 6h of 1000-level sociology.

## SOCI 3743 Criminal Law and Social Policy

This course focuses on the sociological understanding of the origins, development, and interpretation of criminal law in Canada. The social construction of law is examined in the context of the Charter of Rights and Freedoms, judicial decisions, and social forces. Topics may include theories of law, women and the justice system, aboriginal and restorative justice. Prerequisite: 12h SOCI completed including 1006 or 1106 or 6 h from 1013/1023/1033/1113.

## SOCI 3803 Queer Studies

The primary objective of this course is to develop a critical awareness of the social character of sexualities. This course provides a sociological examination of some of the following issues: the role of social movements in bringing about social change, the social construction of sexual identities, homophobia and heterosexism, queer theory and the inclusion of gay/lesbian/bisexual/transgendered/intersex experiences in educational curricula. Prerequisite: SOCI 2403 and SOCI 3403 or WGST 2906.

## SOCI 4003 Senior Seminar

This course is required for honours Sociology students and provides a forum for discussion of thesis topics and procedures. Prerequisite: 21h SOCI completed including 6h from 1006, 1106, 1013, 1023, 1033, 1113; and all of the following: SOCI 2003, 2013, plus 2103 with grades of C- or better. Restricted to Sociology honours students with fourthyear standing.

## SOCI 4113 Seminar in Contemporary Culture

Selected topics in cultural studies. Prerequisite: 21h SOCI completed including 6 h from 1006, 1106, 1013, 1023, 1033, 1113; plus, all of the following: SOCI 2003, 2013, and 2103 with grades of C- or better. Restricted to Sociology honours students with fourth-year standing.

## SOCI 4123 Seminar in Political Economy and Development

A seminar designed to examine in depth a variety of issues in political economy and development. Topics may include social class and elite formations, wealth and power, and underdevelopment and resistance in particular societies. Prerequisite: 21h SOCI completed including 6 from 1006, 1106, 1013, 1023, 1033, 1113; plus, all of the following: SOCI 2003, 2013, and 2103 with grades of C- or better. Restricted to Sociology honours students with fourth-year standing.

## SOCI 4133 Seminar in Social Research and Methodology

An examination of one or more approaches to sociological research, particularly relevant as preparation for honours or masters level research. Prerequisite: 21h SOCI completed including 6h from 1006, 1106, 1013, 1023, 1033, 1113; plus, all of the following: SOCI 2003, 2013, and 2103 with grades of C- or better. Restricted to Sociology honours students with fourth-year standing.

## SOCI 4143 Seminar in Social Theory

A seminar designed to examine a selected set of issues in sociological theory. Selected topics may include the works of pre-twentieth century or contemporary social theorists. Prerequisite: 21 h SOCI completed including 6 from 1006, 1106, 1013, 1023, 1033, 1113; plus, all of the following: SOCI 2003, 2013, and 2103 with grades of C- or better. Restricted to Sociology honours students with fourth-year standing.

## SOCI 4153 Seminar in Work and Occupations

A seminar designed to examine in-depth a variety of issues in sociology of work. Selected topics may include the aging of the labour force, technology, unemployment, and organized labour. Prerequisite: 21 h SOCI completed including 6 from 1006, 1106, 1013, 1023, 1033, 1113; plus, all of the following: SOCI 2003, 2013, and 2103 with grades of Cor better. Restricted to Sociology honours students with fourth-year standing.

## SOCI 4163 Seminar in Gender and Feminism

An examination of research in the areas of gender studies and feminist scholarship, of particular relevance for honours or masters level preparation. Prerequisite: 21h SOCI completed including 6h from 1006, 1106, 1013, 1023, 1033, 1113; plus, all of the following: SOCI 2003, 2013, and 2103 with grades of C- or better. Restricted to Sociology honours students with fourth-year standing.

## SOCI 4183 Seminar in Criminology and Deviance

A seminar designed to examine in depth a variety of issues in the study of social deviance and criminology. Selected topics may include policing, courts, corrections, youth justice and minority groups and the justice system. Prerequisite: 21 h SOCI completed including 6h from 1006, 1106, 1013, 1023, 1033, 1113; plus, all of the following: SOCI 2003, 2013, and 2103 with grades of C- or better. Restricted to Sociology honours students with fourth-year standing.

## SOCI 4193 Seminar in Family Issues

Selected topics are examined in the light of recent empirical findings and contemporary theories. These include mate selection, marriage, and class and ethnic variations among Canadian families. Prerequisite: 21h SOCI completed including 6h from 1006, 1106, 1013, 1023, 1033, 1113; plus, all of the following: SOCI 2003, 2013, and 2103 with grades of Cor better. Restricted to Sociology honours students with fourth-year standing.

## SOCI 4413 Class, Gender and Racialization

This capstone course examines exemplary analyses of the intersection of class, gender and racialization in a variety of social settings. Prerequisite: 21 h SOCI completed including 6 h from 1006, 1106, 1013, 1023, 1033, 1113; plus, all of the following: SOCI 2003, 2013, and 2103. Restricted to Sociology students with fourth-year standing.

Individual research on problems selected by students in consultation with the department. Prerequisite: Permission of head of dept. Restricted to Sociology majors.

## SOCI 4913 Directed Individual Readings in Sociology

Designed to deepen the student's understanding of sociological literature and, in turn, directed toward a specific interest. Intended primarily for qualified seniors and honours students. Prerequisite: permission of head of dept.

SOCI 4996 Honours Thesis
Restricted to Sociology honours students.

## SPANISH

## SPAN 1013 Introductory Spanish Language 1

For students with no previous knowledge of Spanish. The fundamentals of Spanish are presented with a variety of effective teaching methods with emphasis on both oral and written expression. Customs and culture of the Spanish-speaking world are introduced through readings, films, music, and contact with Spanish speakers. By the end of the first year the student is expected to have mastered the essentials of the Spanish language.

## SPAN 1023 Introductory Spanish Language 2

For students with no previous knowledge of Spanish. The fundamentals of Spanish are presented with a variety of effective teaching methods with emphasis on both oral and written expression. Customs and culture of the Spanish-speaking world are introduced through readings, films, music, and contact with Spanish speakers. By the end of the first year the student is expected to have mastered the essentials of the Spanish language. Prerequisite: SPAN 1013 or permission of dept.

## SPAN 2013 Intermediate Spanish 1

Further acquisition of the Spanish language through a comprehensive review of its basic grammatical elements. An audio-lingual approach will be used to develop written and oral skills within the framework of cultural readings. Prerequisite: SPAN 1023 or permission of Department.

## SPAN 2023 Intermediate Spanish 2

Further acquisition of the Spanish language through a comprehensive review of its basic grammatical elements. An audio-lingual approach will be used to develop written and oral skills within the framework of cultural readings. Prerequisite: SPAN 2013 or permission of Department.

## SPAN 2113 Spanish Communication Skills 1

This course focuses on the development of the four communicative skills in Spanish through situational dialogue work, vocabulary-building exercises, task-oriented comprehension activities, and thematic and cultural readings and stories which provide stimuli for pair work, group discussions and writing activities. Selected points of grammar will be reviewed as necessary. Prerequisite: SPAN 1023; Corequisite: SPAN 2013; or permission of Department.

## SPAN 2123 Spanish Communication Skills 2

This course focuses on the development of the four communicative skills in Spanish through situational dialogue work, vocabulary-building exercises, task-oriented comprehension activities, and thematic and cultural readings and stories which provide stimuli for pair work, group discussions and writing activities. Selected points of grammar will be reviewed as necessary. Prerequisite: SPAN 1023, 2013; Corequisite: SPAN 2023 or permission of Department.

## SPAN 3103 Advanced Grammar and Conversation 1

Grammar review, composition, translation and oral practice based on literary readings of Spanish and Spanish American authors. Linguistic registers and regional dialects are discussed with reference to vocabulary building in formal and colloquial contexts. Written exercises and assignments based on the texts studied are required. Emphasis is placed on student interaction and exchange of ideas. Prerequisite: SPAN 2013, 2023, or permission of Department.

## SPAN 3203 Advanced Grammar and Conversation 2

Grammar review, composition, translation and oral practice based on literary readings of Spanish and Spanish American authors. Linguistic registers and regional dialects are discussed with reference to vocabulary building in formal and colloquial contexts. Written exercises and assignments based on the texts studied are required. Emphasis is placed on student interaction and exchange of ideas. Prerequisite: SPAN 3103 or permission of Department.

## SPAN 3213 Literature 1: Middle Ages to Eighteenth Century

Analysis of representative literature. Special study of Poema del Cid, Libro de Buen Amor, La Celestina, Lazarillo de Tormes, Don Quijote and other important works. Oral and written reports. Prerequisite: SPAN 2013, 2023, 2113 or 2123; Corequisite: SPAN 3103; or permission of Department.

## SPAN 3223 Literature 2: Romanticism to Contemporary Period

Study of representative authors such as Bécquer, Valera, Galdós, Clarín, Unamuno, Antonio Machado, Valle Inclán, Lorca, Alberti and Juan Goytisolo. Prerequisite: SPAN 3103, 3213; Corequisite: SPAN 3203; or permission of Department.

## SPAN 3313 Translation and Stylistics 1

Designed to develop a good Spanish style through a close analysis of literary texts, exercises in translation and independent composition. Prerequisite: SPAN 2013, 2113 or 2123; Corequisite: SPAN 3103; or permission of Department.

## SPAN 3323 Translation and Stylistics 2

Designed to develop a good Spanish style through a close analysis of literary texts, exercises in translation and independent composition. Prerequisite: SPAN 3103, 3313; Corequisite: SPAN 3203; or permission of Department.

## SPAN 3413 Spanish American Literature 1

The major movements from the time of discovery to Independence. A selection of authors will be studied from the following representative group: Hernán Cortés, Inca Garcilaso de la Vega, Alonso de Ercilla y Zúñiga, Sor Juana Inés de la Cruz, Fernandez de Lizardi, Bolivar, Olmedo, J. Isaacs, Sarmiento, Echeverría, Heredia, José Hernández, Ricardo Palma, and Lillo. Prerequisite: SPAN 2023; 2113 or 2123; Corequisite: SPAN 3103; or permission of Department.

## SPAN 3423 Spanish American Literature 2

From modernism to present day. A selection of authors will be studied from the following representative group: José Martí, Rubén Darío, Rodó, Quiroga, Azuela, Mistral, Storni, Borges, Neruda, Paz, Vallejo, Rulfo, García Márquez, Cortázar and R. Castellanos. Prerequisite: SPAN 3103, 3413; Corequisite: SPAN 3203; or permission of Department.

## INTENSIVE STUDY OF SPECIAL AREAS (4000-level courses)

Topics are selected by the students in consultation with their professors. Directed readings, seminars and oral and written reports.

## SPAN 3513 Civilización y Cultura: España

This course will develop your understanding of present-day Peninsular Spanish culture and society in the light of its historical development. It is also designed to develop command of written and oral Spanish and communication skills. This course is intended for majors and as an elective for non-majors in Spanish. Prerequisite: Span 2013 and Span 2023 or permission of the department. Antirequisite: Credit cannot be obtained for both SPAN 2513 and SPAN 3513.

## SPAN 3523 Civilización y Cultura: Hispanoamérica

An overview of Spanish America beginning with pre-Columbian civilizations and covering major historical, political, social and economic developments, with an emphasis on the twentieth century and on present-day Spanish American culture and society.
Development of written Spanish and communication skills. Intended for majors and as an elective for non-majors in Spanish. Prerequisite: Span 2013 and Span 2023 or permission of the department. Antirequisite: Credit cannot be obtained for both SPAN 2523 and SPAN 3523.

SPAN 4023 Special Topics: Administrative Practices and Cultural Contexts
Designed for students with a good command of the Spanish language, and a solid foundation in business vocabulary. An overview of commerce in a global economy and a focus on organizational business practices in Spain and Spanish-America. Prerequisite: SPAN 3203, 4013; Corequisite: SPAN 3313, 3323, or permission of Department.

## THEATRE

## THEA 1001 Production Credit 1

Participation in a Theatre production in the capacity of minor performance role, crew member, stage management or technical director assistant, with an average time commitment of 6 hours per week over the term. (1 credit hour).

## THEA 1483 Introduction to Theatre

This course provides students with a practical introduction to the basic principles of acting and performance.

## THEA 2002 Production Credit 2

Participation in a Theatre production in the capacity of a major performance role, crew head, assistant designer, stage manager or assistant technical director. (2 credit hours).

## THEA 2213 Acting \& Performance 1

Development of the basic principles of performance and acting. Prerequisite: THEA 1483 and Theatre major or permission of the Theatre faculty.

## THEA 2223 Acting \& Performance 2

Continuing development of the basic principles of performance and acting. Prerequisite: THEA 2213.

## THEA 2753 Theatre Voice and Speech 1

Introductory exploration of voice and speech for the actor. Prerequisite: THEA 1483 or by permission of the instructor.

## THEA 2763 Theatre Voice and Speech 2

Continued exploration of voice and speech for the actor. Prerequisite: THEA 2753.

## THEA 2803 Topics in Film

An introduction to the language and critical vocabulary of narrative and non-narrative film. Mandatory weekly screenings outside of class time. Prerequisite: THEA 1483 and ENGL 1406 or 1413 and 1423; for non-majors, ENGL 1406 or 1413 and 1423.

## THEA 2813 Advanced Topics in Film

Advanced study of the formal and stylistic systems of narrative and non-narrative film. Mandatory weekly screenings outside of class time. Prerequisite: THEA 2803 or permission of the instructor.

## THEA 2823 Introduction to Production 1

An introduction to production in the theatre. Basic production elements and procedures will be examined including theatre forms and stage management and two of the following - sets, scenic painting, properties, lighting, sound and costumes. This course includes classroom and practical, physical work in the theatre to develop basic skills. Clothing appropriate for work and safety is necessary. Open to non-majors.

## THEA 2833 Introduction to Production 2

An introduction to production in the theatre. Complementary to THEA 2823. Basic production elements and procedures will be examined from four of the following - sets, scenic painting, properties, lighting, sound and costumes. This course includes classroom and practical, physical work in the theatre to develop basic skills. Clothing appropriate for work and safety is necessary. Open to non-majors.

## THEA 2853 Theatre Movement 1

This is an Introductory Movement course. Course work will be geared to developing body awareness, strength and flexibility, and physical skills. Emphasis will also be placed on: creativity, expanding movement range and improvisation/ exploration in preparation for performance work. Prerequisite THEA 1483 or permission of the instructor.

## THEA 2863 Theatre Movement 2

This is an intermediate course focusing on understanding body mechanics, breaking habits, and creative use of physicality. Much of the course work is geared to developing greater movement vocabulary, along with ease and fluency. The goal is to achieve the fullest possible range of physical and emotional expression, and to know how to apply this to performance. Prerequisite: THEA 2853.

## THEA 2883 Theatre History: Origins to Shakespeare

An examination of the relationship of social environment to the theatrical practice and dramatic literature which developed in various western cultures from pre-Greek origins to the late Renaissance. Prerequisite: THEA 1483 and ENGL 1406 or 1413 and 1423); for non-majors, ENGL 1406 or 1413 and 1423.

THEA 2893 Theatre History: Restoration England to The Twentieth Century
Continuing examination into the relationship of social environment to the theatrical practice and dramatic literature which developed in various western cultures from the late 17th century to the late 20th century. Prerequisite: THEA 1483 and ENGL 1406 or 1413 and 1423; non-majors, ENGL 1406 or 1413 and 1423.

## THEA 3133 Playwriting

This course introduces the student to the principles of playwriting through an analysis of plays in various genres and the use of texts on dramatic theory. Students will work through projects assigned by the instructor, and are expected to submit proposals to Minifest. Class work and the completion of a short play determine the student's mark in the course. Prerequisite: THEA 1483 and ENGL 1406 or 1413 and 1423; non-majors, ENGL 1406 or 1413 and 1423.

## THEA 3243 Dramaturgy

The processes and functions of dramaturgy will be examined in both a practical and theoretical context. Students will learn how to apply critical discourse to text analysis,
performance and theatre systems in a manner which reflects the practical needs and working etiquette of the theatre. Dramaturgs will be assigned to work in the Acadia Theatre Company's productions. Prerequisite: THEA 1483 and ENGL 1406 or ENGL 1413 and ENGL 1423; non-majors, ENGL 1406 or ENGL 1413 and ENGL 1423.

## THEA 3313 Acting \& Performance 3

Intermediate development and training in performance and acting. Prerequisite: THEA 2223 or permission of the instructor.

## THEA 3323 Acting \& Performance 4

Continued intermediate development and training in performance and acting.
Prerequisite: THEA 3313 or permission of the instructor.

## THEA 3853 Theatre Movement 3

This course focuses on integration of movement skills from earlier courses. Students will continue developing movement vocabulary, and will be introduced to different approaches to composition and the creative process. The goal is to integrate physical and emotional expression in the body, and to be able to put together coherent original work.
Prerequisite: THEA 2863.

## THEA 3863 Dance in History and Culture

This is a studio course that introduces students to the evolution of social and concert dance in Europe and North America. We will also look at social dance in other cultures as time and opportunity permit. Although dance history will be covered, the primary focus of this course is experiential learning - in other words, dancing! No prerequisite.

## THEA 4323 Performed Violence 2

Bladed techniques in the illusion of violence for performance, at an internationally recognized certification level. Prerequisite: THEA 4313.

## THEA 4413 Acting and Performance 5

Advanced techniques and development in training for performance and acting. Prerequisite: THEA 3323, THEA major or permission of the instructor.

## THEA 4423 Acting and Performance 6

Continued advanced techniques and development in training for performance and acting. Prerequisite: THEA 4413, Theatre major or permission of the instructor.

## THEA 4833 Dramatic Theory and Criticism: Plato to Schiller

Western theatrical theory and criticism from ancient Greece to the Romantic period. Prerequisite: THEA 1483 and ENGL 1406 or 1413 and 1423; non-majors, ENGL 1406 or 1413 and 1423.

## THEA 4843 Dramatic Theory and Criticism: Naturalism to The Theatre of the Oppressed

Western theatrical theory and criticism from the late 19th century to the late 20th century. Prerequisite: THEA 1483 and ENGL 1406 or 1413 and 1423; non-majors, ENGL 1406 or 1413 and 1423.

## WOMEN'S AND GENDER STUDIES

## WGST 1413 Introduction to Women's and Gender Studies

As a general introduction to women's studies, this course will provide a multi-disciplinary focus on feminist principles and approaches to scholarship. Topics to be presented include, but are not limited to women's sexuality, the body and health, aging, socialization, economic and political roles, spirituality and women throughout history.

## WGST 2193 Women in Science

This course will explore issues affecting women in science and attempt to answer the questions: Why so few? How can we effect change? Through an examination of research on topics such as implicit bias, stereotyping, and messaging in popular culture, the barriers to women entering scientific fields and ways to challenge and overcome them will be explored. Prerequisite: Second year standing or better. Antirequisite: Credit cannot be obtained for both PSYC 2193 and WGST 2193.

## WGST 2906 Women and Gender in the Modern World

This interdisciplinary course analyzes the nature, status, image and changing roles of women and men in the world today, placing gender at the forefront of analysis from a cross-cultural perspective, with comparisons to Canada. May be taken for major or minor credit in Canadian Studies and Sociology. No prerequisite.

## WGST 2913 Global Women's Movements

The course will focus on women's movements around the globe. Using historical and contemporary case studies, we will explore what leads women to mobilize, the resources that help or hinder these movements, and the conditions of women's lives that spark action for social change. Cases will cover a diversity of regions and issues (such as religion, politics, health, and labour).

## WGST 3023 Feminist Theory

The course examines the historical evolution of feminist theory in the west through the analysis of theoretical texts across academic disciplines. Topics of discussion vary but include key concepts such as identity politics, religion, class, race, (trans)gender, sexuality, and the body; intersectionality; language and politics; activism and globalization. May be offered for major credit in English, Politics, and Sociology. Prerequisite: second year standing or better.

## WGST 3123 Feminism and Popular Culture

This course examines through a feminist lens ways women and gender are constructed and represented in popular culture. Close attention is paid to how women and men are differentially represented (and represent themselves) along lines of race, class, sexuality, ability, etc., and reviews contemporary cultural theories of representation, tools for creating critical cultural analysis, and debates in feminist media studies. Prerequisite: third year standing or permission of the instructor.

## WGST 3503 Making Men and Women: Gender Through the Ages

Major writings which contributed to or were about the construction of gender throughout history. Students may read excerpts from classical texts to modern treatises and their significance for men's and women's lives will be considered. May be offered for major credit in English, history, and sociology.

## WGST 3703 Special Topics in Women's and Gender Studies

An in depth study of a selected topic in the area designed to enable students to take advantage of the particular expertise of visiting or current faculty. May include topics such as domestic violence, women in film, women and food, or women in science. Prerequisite: WGST 1413 or permission of the instructor.

WGST 4903 Directed Individual Readings in Women's and Gender Studies Designed to deepen the student's understanding of particular topics in Women's and Gender Studies. Intended primarily for qualified fourth year and honours students. Prerequisite: permission of WGST program coordinator.

## WGST 4913 Women of the African Diaspora

A conceptual and thematic exploration of the ways in which race, gender, sexuality and socio-economic status have influenced the experiences of African-descended women. Focus is on individual and group experiences of women of the African Diaspora in the Americas and beyond. How have societies shaped and been shaped by the African Diaspora? What impact(s) has the African Diaspora had globally? Prerequisite: third-year standing or permission of the instructor.

WGST 4996 Thesis

## Graduate Courses

Graduate courses are normally restricted to students enrolled in graduate programs.

## BIOLOGY

## BIOL 5013 Research Methods in Biology 1

An exploration of the history and philosophy of science, expectations of students and supervisors, and practical approaches to biological research, publishing, and critical review. Students complete a research proposal, research grant application, and/or manuscript from current or past research. Students meet weekly to explore topics, and review and critique the work of others. Proposals and applications are presented and defended. Prerequisite: none.

## BIOL 5023 Research Methods in Biology 2

An exploration of current and historical topics in biology through seminar discussions, original research projects, critical reviews, data exploration (visual, mathematical, and statistical), software implementation, presentations, workshops, and/or field trips.

BIOL 5033/5043/5053 Advanced Topic in Graduate Biology 3/4/5
Students will choose a course from one of the following subheadings in consultation with their supervisor/supervisory committee: Terrestrial Ecology; Molecular Biology and Genetics; Plant Biology; Animal Biology; Conservation and Population Biology; Aquatic Ecology; Microbiology and Parasitology.

## BIOL 5960 Graduate Thesis

## CHEMISTRY

CHEM 5010 Research Seminars
Graduate students are required to attend all departmental seminars. This is a non-credit course required for all full-time graduate students in Chemistry.

## CHEM 5013 Qualifying Exam

Oral presentation on a research topic that relates to the thesis sub-discipline. The oral presentation will be followed by an oral examination on the student's general chemistry knowledge. Required course for the MSc degree in Chemistry that should be attempted during the first term of the program.

## CHEM 5023 Research Proposal

Oral defence of a written research proposal (using the format of an NSERC Discovery Grant) that should be attempted during the second term of the MSc program. Required course for the MSc degree in Chemistry.

## CHEM 5106 Advanced Physical Chemistry 1

Advanced topics in chemical kinetics and reaction dynamics.

CHEM 5113 Advanced Physical Chemistry 2
Advanced topics in electrochemistry and surface science.
CHEM 5303 Advanced Inorganic Chemistry 1
Specific topics of current interest are discussed in some detail.

## CHEM 5313 Advanced Inorganic Chemistry 2

Recent developments in the area are studied from the current literature.
CHEM 5403 Advanced Coordination and Organometallic Chemistry 1
Specific topics of current interest are discussed in some detail.
CHEM 5413 Advanced Coordination and Organometallic Chemistry 2
Recent developments in the area are studied from the current literature.
CHEM 5503 Advanced Topics in Organic Chemistry 1
Special topics in organic synthesis. Recent literature is discussed.
CHEM 5513 Advanced Topics in Organic Chemistry 2
Recent developments in the area are studied from the current literature.
CHEM 5703 Advanced Topics in Biochemistry 1
Enzymology of hydrolases.
CHEM 5713 Advanced Topics in Biochemistry 2
Regulatory enzymes.

## CHEM 5803 Advanced Analytical Chemistry 1

Modern methods of applying chemometrics, sampling, mass spectrometry and electrochemistry.

## CHEM 5813 Advanced Analytical Chemistry 2

An overview of state-of-the-art analytical methods and applications.

## CHEM 5960 THESIS

## CO-OPERATIVE EDUCATION

## COOP 5910/5920 Cooperative Education 1/2

This is the first (second) four-month term in which the student is employed in a discipline related position. For successful completion of each work term, students must receive a positive evaluation from their employer and must submit a satisfactory work report. Prerequisite: permission from the supervisor and Graduate Coordinator.

## COMPUTER SCIENCE

COMP 5013/5023/5033 Topics in Theoretical Computer Science 1/2/3 These courses consist of intensive examination of selected specific advanced topics in theoretical computer science. Since the specific topic or research problem that receives special treatment will differ from year-to-year, students are advised to consult with the School prior to registration.

COMP 5113/5123/5133 Applications in Computer Science 1/2/3
These courses consist of intensive examination of selected specific advanced topics in applications of computer science. Since the specific topic or research problem that
receives special treatment will differ from year-to-year, students are advised to consult with the School prior to registration.

## COMP 5213/5223/5233 Systems in Computer Science 1/2/3

These courses consist of intensive examination of selected specific advanced topics in systems in computer science. Since the specific topic or research problem that receives special treatment will differ from year-to-year, students are advised to consult with the School prior to registration.

COMP 5913 Readings in Computer Science The student is assigned to a faculty member for regular meetings to discuss readings in a selected area. Papers and research projects are expected. Prerequisite: permission from the Graduate Coordinator.

## COMP 5960 Thesis

## EDUCATION

EDUC 5003 Human Development and Learning
This course focuses on human development and learning across the lifespan. A primary focus will be on the emergence and growth of self-concept and self-awareness in relation to the development of personal agency.

## EDUC 50A3 Foundations in Information and Communication Technology

This course involves a critical examination of the role of information and communication technology in education. The analysis is contextualized within educational theory. Further, it is an exploration of a variety of ways that information and communication technology has, is, and will be applied to educational contexts.

## EDUC 50B3 Educational Technology and Pedagogy

This course uses a studio approach to exploring effective use of educational technology. The focus is for students to understand and be capable of participating in the production of applications that can be applied to educational contexts.

## EDUC 50C3 School Counselling Programs

This course examines the roles and functions of school counsellors in the planning, development, implementation, and evaluation of programs aligned with various models of school counselling. Relevant ethical, legal, and diversity issues are considered in the context of provision of counselling, consultation, and coordinating services in the school setting. Prerequisite: EDUC 5033 and EDUC 5133.

## EDUC 50D3 Professional Issues in Counselling

This course engages students in critical analysis of professional, ethical, legal, and diversity issues related to practice, teaching, supervision, and research in counselling. Students explore personal beliefs and values, review ethics and legal documents, consider procedures for processing ethical inquiries and complaints, and engage in application of ethical decision-making processes to ethical dilemmas. Prerequisite: 12 hours of coursework in the program.

## EDUC 50E3 Counselling Adolescents and Children

This course examines counselling theories, research, and practice related to adolescents and children. Counselling and consulting approaches are explored and evaluated in the context of referral issues commonly arising during this developmental period. Attention is given to youth "at risk" and to the ethical, legal, and diversity issues particular to counselling young people. Prerequisite: EDUC 5033 and EDUC 5133.

## EDUC 50F3 Counselling Pre-Practicum

The 40 -hour pre-practicum experience required in this course engages students in the study and practice of beginning counselling skills in a simulated environment. While under supervision, students enhance self-awareness, further develop counselling competencies, analyze their developing counselling style and performance, and attune to ethical, legal, and diversity-sensitive practices. Prerequisite: EDUC 5033 and EDUC 5133.

## EDUC 50G3 Research Literacy

This course focuses on major research paradigms most often used by professional educators. Emphasis will be placed on the development of the practical application of skills required of informed practitioners to participate effectively in problem solving in the work setting. Students will be provided with opportunities to develop a set of abilities that may be used to critically understand and use the dominant language of research. This includes reading, analyzing, engaging in, and writing research.

## EDUC 50H3 Introduction to Disability Studies

The course introduces students to various theories of disability by tracing the historical and contemporary ways in which societies define and respond to disability. Disability studies provides a critical framework for understanding the socio-political context of disability and thinking about the extent to which exclusion, aesthetic "ideals", and social policies and practices have significant consequences for people with disabilities. Course work involves an exploration and critique of the dominant views informing schooling policies and practices around disability (usually named as special education and student support services). Prerequisite/Corequisite: EDUC 5063.

## EDUC 50J3 Principles of Assessment for Counselling

Principles and constructions of assessment and ethical and diversity considerations are discussed in the context of current issues and areas of practice in counselling. Students become familiar with selected standardized tests frequently used in counselling and consider questions around formal and informal assessment. Development of a critical perspective in regard to assessment conceptualisation, purposes, methods, and issues is fostered.

## EDUC 50K3 Clinical Mental Health Counselling

This course provides a foundation for working with clients who are living with mental illness. Students will become familiar with the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, and become conversant with evidence-supported and emerging approaches to treatment/ intervention. The intent of the course is to establish a critical, conceptual, and procedural framework across the mental health continuum.
Prerequisite: EDUC 5033, EDUC 5133 and EDUC 50J3

## EDUC 50L3 Interpersonal Communication and Human Relationships

This course examines influences of communication style, context, and culture on relationships. It considers verbal and nonverbal, direct and indirect, oral and written communication. Foundations of effective communication and healthy relationships, and processes that enhance or detract from these are considered. In particular, conflict management and resolution approaches such as mediation are explored.

## EDUC 5013 History of Education

This course surveys, from a national as well as a regional perspective, the development of the Canadian school system from its colonial beginnings until the 1990s. The main focus is on the process of curriculum development, the social and cultural contexts in which it occurred, the principles that guided it, and the programs of study that emerged from it.

## EDUC 5023 Philosophy of Education

This course examines selected aspects of education from a philosophical perspective. Topics included are the relationship between theory and practice; dimensions of educational value; the nature of knowledge and the curriculum; moral education; the teacher and controversial issues; and the school as object and agent of reform.

## EDUC 5033 Counselling Theories

This course is an introduction to the field of counselling. Philosophical foundations and historical bases of the counselling profession are considered from a critical perspective and current issues and future trends are taken up. A significant portion of the course is devoted to the study of the major theories of counselling, both historical and current. Prerequisite: Admission to the counselling program.

## EDUC 5043 Sociology of Education

This course is designed to study social problems emanating from such institutions as the family, the community, and political and religious organizations, and to illustrate how these problems impinge upon the schools and the role of the teachers and students.

## EDUC 5053 Problems in Education

This course is designed to allow students to engage individually in research or other projects that are of special interest to the student and acceptable to a supervising instructor. While course requirements may vary according to the project selected, the course normally requires that students demonstrate their understanding of the field through a written report and a written or oral examination. If using the course to meet concentration requirements, the focus of the study must be in the concentration area. Prerequisite: gh graduate courses or their equivalent, at the discretion of the Director.

## EDUC 5063 Foundations of Inclusive Education

This course examines foundational issues related to the ways in which race, class gender/sexuality and disability intersect within the context of schooling. A critical exploration of the assumptions embedded within schooling's response to diversity is offered that draws upon relevant historical and sociological theories of social difference.

## EDUC 5066 Seminar and Practicum in Counselling

This course involves a 500-hour supervised counselling practicum and accompanying seminar. Students are responsible for arranging their practicum, in consultation with the Practicum Coordinator. Students must be available full-time for the 16 to 20-week residency required to complete the practicum experience. Availability for the practicum is the responsibility of the student; leaves should be considered prior to admission to the program. Prerequisite: EDUC 50F3, EDUC 5033, EDUC 5133, EDUC 5623 and EDUC 5583. Preference is given to those who have completed additional counselling courses.

## EDUC 5073 Curriculum and Instruction for Inclusive Education

This course examines inclusive curriculum and instructional practices that will assist teachers in meeting students' diverse learning needs in educational settings. Students will explore and critique relevant research related to inclusive school communities as well as issues around equitable assessment and instructional practices. Prerequisite or Corequisite: EDUC 5063.

## EDUC 5103 Seminar and Practicum in Special Education

This course provides opportunities for students to experience new educational settings and implement newly acquired knowledge and skills in a natural context.

## EDUC 5106 Seminar and Practicum in Inclusive Education: Special Topics

This course provides a) a seminar experience in which students read and discuss the literature on inclusive practice, followed by b) a practicum experience offering opportunities for application, reflection, collaboration with peers, and feedback from instructors. The focus of the course varies, concentrating on general inclusive practice, or on inclusive practice in literacy education, or in mathematics education. Prerequisite or Corequisite: EDUC 5063.

## EDUC 5113 Qualitative Research in Education

This course examines the traditions and paradigms of interpretive research in educational contexts. Practical, ethical, and theoretical issues are shared through class readings, discussion, and practical application. Opportunities are provided for students to learn and practise a variety of interpretive research methods and strategies. Students actively engage in analysing data from a variety of interpretive perspectives. The intended outcome of the course is to provide students with skills and understandings in a wide range of interpretive research approaches that can be put into practice in classrooms and other research settings. Prerequisite: EDUC 5513.

## EDUC 5123 Curriculum Practice for Diverse Learners

This course examines current curriculum practices, policies and assessment approaches, within schooling contexts, that respond to diverse learners. The historical/sociological and psychological constructions of the category of diverse learners and the associated assumptions will be considered within curricular theory.

## EDUC 5133 Counselling Skills

This course focuses on those conditions and skills that have been associated through research with effective counsellor-client relationships and positive client growth. Through lectures, discussions, and structured exercises, including role playing and videotaped simulated counselling sessions, students are provided with an opportunity to identify these conditions and to develop appropriate skills. Prerequisite or concurrent: EDUC 5033.

## EDUC 5143 Educational Explorations

This course provides an opportunity for the exploration of a variety of educational issues through participation in formats such as institutes, workshops, and mini-courses.
Evidence of 3 h equivalency ( 120 hours of approved voluntary professional development activities), program relevance, and appropriate academic standards are to be submitted for prior approval to the Director. Evaluation is on a pass/fail basis.

## EDUC 5153 Readings in Education

This course is designed to permit students to pursue in depth any of the major areas in education. Requirements for the course will be determined mutually by the student and the supervising instructor. If using the course to meet concentration requirements, the focus of the study must be in the concentration area. Prerequisite: gh graduate courses or their equivalent, at the discretion of the Director.

## EDUC 5163 Assistive Technology: Access to Literacy

Assistive Technology (AT) includes a wide variety of strategies, services and tools to support all students in the classroom. This course focuses on introducing the participant to current conceptual models and use of assistive technology supporting access to literacy skill development for students with learning differences as well as discussion of integrating AT into the Program Planning Process.

## EDUC 5173 Assistive Technology: Access to Learning and Leisure

Assistive Technology (AT) includes a wide variety of strategies, services and tools to support all students in the classroom. Participants will be introduced to current
conceptual models and use of assistive technology necessary for some students with disabilities to access classroom learning and leisure activities. Course participants will explore the processes involved in the assessment and planning for appropriate utilization of AT in the school environment.

## EDUC 5183 Applied Linguistics 1

This course is an advanced introduction to the topic of teaching English as a second language in both Canadian and foreign settings. The course focuses on foundations for successful teaching, including and understanding of a range of teaching approaches used in different contexts, and the role of cultural and educational background in learning a second language.

## EDUC 5193 Applied Linguistics 2

This course continues the advanced introduction to the subject of linguistics presented in EDUC 5183 . Classes will focus on advanced syntax, semantics, and a number of applied topics, including child language development, cross-cultural communication, language and the brain, psycholinguistics and sociolinguistics. As in the previous course, an emphasis will be placed throughout on how linguistic analysis contributes to an understanding of communication and linguistic processing. Prerequisite: EDUC 5183 or equivalent.

## EDUC 5203 Introduction to Educational Technology

This course examines the use of computers and information technology in classrooms and other educational settings. Emphasis is placed on the integration of the foregoing in curriculum and instruction. Not for credit in the M.Ed. Learning and Technology program or the M.Ed. in Curriculum Studies program with emphasis in Learning and Technology except by permission of the Director, School of Education, or Director's designate.

## EDUC 5213 Organizational Theory and School Culture

This course focuses on principles of traditional and critical organizational theory and their application to educational institutions. Concepts include bureaucracy, professional organizations, innovative organizations, learning organizations, and post-modern conceptions of organizations. Attention is given to principles of organizational cultures and politics and their application to schools, as well as their relevance to leadership and school development.

## EDUC 5233 Counselling Families

This is an introductory course in counselling families and systemic approaches. In addition to an examination of the philosophical and historical underpinnings of family therapy, the course examines systemic theories and family therapy research. Students will have opportunities to consider the practical application of those theories to working with parents/guardians and families in school and agency settings. Prerequisite: EDUC 5033.

## EDUC 5243 Supervision

This course is designed to study the principles, methods and techniques used in the supervision of instruction in the public school system, with emphasis on the evaluation of the teaching-learning process. This course may require observation of practice-teachers in the schools and discussion observations with the practice-teachers in a supervisory capacity.

## EDUC 5273 Education and the Law

This course examines statute and case law relating to public education in Canada. The objective is to clarify general legal principles through an investigation of such topics as authority in education, teacher rights, student rights and teacher/school board liability. A major focus is the educational implications of the Charter of Rights and Freedoms.

## EDUC 5283 Creative Integration of Curriculum in Elementary School

This elective course surveys a range of approaches through which prescribed outcomes in elementary language arts, mathematics, science, and social studies curriculum can be integrated in classroom practice. While theories of curriculum integration form the foundation for the course, the emphasis is on the notion of creativity as a means to situate learning in meaningful contexts. This course is offered at both the undergraduate and graduate levels.

## EDUC 5303 Principles of Assessment for Education

This course provides an introduction to major principles that underpin formal and informal assessment in education. Students learn to consider assessment information in the context of assessment of, for, and as learning. A critical exploration of issues which impact on the assessment process such as bias, morality, ethics and analysis of processes that aid in making systemic changes in assessment practices are examined.

## EDUC 5313 Assessment for Learning 1

This course is designed to familiarize students with standardized achievement and informal assessment tools. Students will experience the administration, scoring and interpretation of commonly used assessment battery instruments. Prerequisite: EDUC 5303.

## EDUC 5323 Assessment for Learning 2

This course concerns central issues in individual assessment. It highlights how social identity constructs intersect with assessment processes. Students examine the design and administration of selected assessment tools and the interpretation of results within the context of collaborative process. While the course addresses requirements for Nova Scotia Level B certification, individual school board requirements may differ. Prerequisite: EDUC 5303.

## EDUC 5513 Research Design in Education

This course is designed to encourage participants to develop a critical research orientation to their work while maintaining an awareness of multiple research paradigms. Emphasis is placed on participants gaining an understanding of basic research concepts so as to be able to effectively apply them to analyzing, interpreting and critiquing current research literature.

## EDUC 5523 Educational Statistics

This course provides a background for the educator who must use statistics in research, evaluation and planning. The fundamental statistical tools are reviewed and particular statistical methods applicable to educational problems are introduced in this course. While the student uses computers to calculate and to manage the data, an emphasis is placed upon the interpretation of statistical results. The following topics are part of this course: linear regression and correlation, multiple regression analysis, analysis of variance, and non-parametric statistics.

## EDUC 5543 Work and Life Planning Counselling

This course examines theories of vocational development and choice, meanings attached to work and leisure, and uses of occupational and educational information. Approaches for assisting individuals in exploration and decision-making related to work in the context of lifespan issues are actively explored. Consideration is given to issues related to equity and diversity as they relate to worklife. Prerequisite: EDUC 5OJ3.

## EDUC 5553 Topics in Counselling

Different sections of this course are available each year, addressing ethical and diversitysensitive practices in such specialized areas important to counsellors as addictions,
introduction to aboriginal counselling, play therapy, rural communities and counselling, spirituality, and sexual diversity.

## EDUC 5563 Career Counselling

This course is for students who wish to expand their career counselling competencies. It includes a major practical component and will cover such topics as career education and exploration, planning and decision making, and incorporation of computer-based programs. Students are introduced to selected interest and other preference assessment tools. Equity and diversity are taken up as central concerns in career counselling.
Prerequisite: EDUC 5543.

## EDUC 5583 Counselling Strategies and Interventions

This course builds upon an existing theoretical and skill foundation via conceptual and experiential exploration of counselling strategies and techniques. Students will be able to articulate a theoretical rationale for the selected strategies and techniques and will hone competency in their implementation. Prerequisite: EDUC 5033 and 5133.

## EDUC 5593 Feminist Counselling

Feminist counselling provides an opportunity for students to examine concerns that women may have as a result of living in a male-dominated society. This course integrates feminist principles within contemporary theoretical positions. It explores gender stereotypes, sex role socialization, institutionalized sexism, lifespan issues for women, and provides a feminist vision of counselling and psychotherapy. Prerequisite: EDUC 5033.

## EDUC 5603 Learning and Technology

This course provides students with a broad foundation in research and theory related to the application of information and communication technology to promote learning. Through readings, discussion, and project work, students will develop a critical appreciation of challenges and opportunities brought about as educational technology is increasingly utilized in educational contexts.

## EDUC 5623 Group Counselling: Theory and Practice

This course provides a conceptual and experiential introduction to group work theory, models, skills, strategies, and techniques. It affords opportunity for the acquisition and application of self-awareness, knowledge, and competencies related to group counselling and leadership. Students explore group development, process, and dynamics; therapeutic factors; facilitator and member roles; ethical and legal considerations; and cultural and other diversity considerations. Prerequisite: EDUC 5033 and EDUC 5133.

## EDUC 5633 Curriculum Foundations

This course is designed to examine the nature of curriculum and the basic principles of the curriculum development process. The nature of curriculum is approached by a search for commonalities that are present in the conflicting views of curriculum. The curriculum development process is examined through major theoretical models of the process and the curriculum organization patterns across Canada. Special attention is given to the role of the teacher and principal in this process as well as the functions and competencies of other curriculum workers. Recent innovations in curriculum organization serve as reference points throughout this course.

EDUC 5643 Major Theoretical Developments in Curriculum Studies
This course focuses on current issues in the field of curriculum theory. In particular, students are invited to study and discuss the impact of critical theories and the theories of post-modernity on curriculum development in schools. Prerequisite or Corequisite: EDUC 5633 or permission of the instructor

## EDUC 5653 Literacy Development

This course is designed to examine the theoretical constructs of literacy development. The course provides an opportunity to investigate how language, both spoken and written, is learned. Instructional implications of theory and research provide a framework for examining topics such as developmental learning, holistic teaching, language across the curriculum, and evaluation.

## EDUC 5663 Curriculum Practice

This course provides an opportunity for students to apply the theoretical implications from previous courses (i.e. 5633 and 5643) to the examination and development of curricula. Students are required to design and develop a curricular project. Prerequisite: EDUC 5633, EDUC 5643, or permission of the instructor.

## EDUC 5673 Current Research and Theory in Curriculum: Specialty Area

This course is designed to examine recent research and theoretical developments in a specific subject matter area (sections will be assigned to specific specialty) and how they affect the design of instruction and curriculum. Such developments are examined in terms of their impact on current teaching and curricular initiatives. If using the course to meet concentration requirements, the focus of the study must be in the concentration area. Prerequisite: EDUC 5633, EDUC 5643, or permission of the instructor.

## EDUC 5693 Principles and Practices in Teaching English as A Second

## Language

This course is an advanced introduction to the topic of teaching English as a second language in both Canadian and foreign settings. This course focuses on foundations for successful teaching, including an understanding of a range of teaching approaches used in different contexts, and the role of cultural and educational background in learning a second language. Prerequisite: EDUC 5183, EDUC 5193 or equivalent.

## EDUC 5713 Project in Education

The focus on the project is on practical applications grounded in scholarly work. The project should be a substantial piece of work with a written component of approximately 30 pages, at the discretion of the supervisor. Projects might include, but are not limited to: development of software or artistic presentation, creation of a professional development program, or evaluation of a counselling program.

## EDUC 5753 Math, Science and Technology in The Curriculum

This course explores the historical role of mathematics, science, and technology in the curriculum, reasons (social and otherwise) for the inclusion of specific fields or topics, and the social impact of curricular changes. A case study examines a historically significant curriculum change through the lenses of current curriculum theories. If using the course to meet concentration requirements, the focus of the study must be in the concentration area.

## EDUC 5763 Culture, Language, and Education

This course focuses on the relationships between culture, language, and identity as they relate to human development and schooling. Topics include: culture, language, identity, ethnicity, race, gender, and socio-economic status.

## EDUC 5773 Community Perspectives on School and Society

Education and employment are increasingly driven by globalization; this loss of local control is a worldwide phenomenon. What happens to communities and our sense of belonging in the new "global marketplace"? What does it mean to be a citizen in a consumerist society? This course considers how teachers and schools can respond to these massive social, economic, and technological changes. Topics include cultural identity, social justice, and human and ecological development in both rich and poor countries.

## EDUC 5843 Instructional Design

This course investigates current developments in instructional design. Selected instructional systems are examined in terms of a design-delivery-evaluation model. A major focus is the application of models to specific curricular areas in elementary and/or secondary schools. If using the course to meet concentration requirements, the focus of the study must be in the concentration area.

## EDUC 5853 Online Technology in Education

This course explores the integration of online technology into educational practice. The ways in which technology is being integrated are considered as well as the implications. Particular attention is given to the role that technological developments have played in inviting educators to reconsider our thinking with regard to fundamental educational concepts, such as learning and schooling. If using the course to meet concentration requirements, the focus of the study must be in the concentration area.

## EDUC 5863 Math in Context: Topic

This course explores historical, societal, and research based influences on mathematics teaching and curriculum, through a focus on a specific topic (e.g., proof, algebra, geometry, manipulatives, representations, etc.).

## EDUC 5873 Technology and Curriculum: Math and/or Science

Any technology from chalk to computer changes what is possible in a classroom, which in turn has implications for what we teach. This course explores those implications in mathematics and/or science teaching, depending on student interests.

## EDUC 5883 Contemporary Curriculum Trends in Mathematics and/or

## Science

Theories of innovation applied to a case study of current curriculum reform at all grade levels in mathematics and/or science, depending on student interests. Particular attention is paid to the role of research, government reports, professional standards developed by the NCTM and NSTA, and current curriculum development projects (e.g., APEF Math and the Pan-Canadian Science Project).

## EDUC 5913 Theoretical Perspectives on Leadership

This course is intended to familiarize students with past and present thinking on leadership, especially as it applies to educational settings. Consideration is given to previous research on leadership, including that on traits, behaviour, situational leadership, and charismatic leadership. The course moves towards a focus on democratic and inclusive forms of educative leadership.

## EDUC 5923 Seminar and Practicum in Leadership

This course is intended to provide graduate students in leadership with field experience in appropriate settings. Placements are chosen by the program coordinator in consultation with students. The course consists of regular seminars. Cases from field experiences are presented and discussed. Availability of this course depends on student numbers and practicum site availability.

## EDUC 5933 Equity and Leadership

This course examines the gendered and cultural nature of leadership. Attention is given to the socio-historical circumstances which have led to a construction of leadership on patriarchal premises. The course focuses on a deconstruction of the concept and practice of leadership and a reconstruction based on democratic and inclusive principles. Prerequisite or Corequisite: EDUC 5913.

## EDUC 5943 Change Theory and The Learning Organization

Change is a fundamental, and frequently problematic, aspect of organizational life. This course focuses on the process of change and examines the tensions and contradictions involved in this process. Attention is given to the premises under which change occurs and ways in which the process can be undertaken in a democratic and inclusive manner.

## EDUC 5953 Schools and Social Justice

This course re-examines and deconstructs the roles which schools play in society. Instead of viewing schools merely as sites where knowledge gets passed from one generation to another, the focus switches to the roles which schools play in the distribution of social and economic benefits and in the reproduction of inequity. Central topics include poverty and education, knowledge and power, curriculum and ideology, and the reproduction of advantage and disadvantage.

## EDUC 5966 Graduate Thesis

Prerequisite: EDUC 5113 or EDUC 5523 .

## EDUC 8013 Foundations of Educational Inquiry

An examination of the purpose, process, nature and ideals of education. Students engage with enduring educational philosophical and theoretical traditions and perspectives, the history of educational thought and the philosophy of education, in particular. A variety of foundational perspectives provide deeper understandings of the theoretical and methodological underpinnings of education. Corequisite: EDUC 8013 is a corequisite of EDUC 8023 is a pre-requisite for the remaining courses in the program.

## EDUC 8023 Methodological Perspectives on Educational Research

An examination of the import of methodological paradigms in educational research (building on the foundations of educational inquiry). Students investigate: (a) ontological assumptions; (b) epistemological views; (c) the role of logic, sound evidence and justified beliefs; (d) axiology (values and biases); and, (e) rhetorical (research reporting structures) components of educational inquiry. Corequisite: GEDU 8023 is a corequisite of GEDU 8013 is a pre-requisite for the remaining courses in the program.

## EDUC 8033 Doctoral Seminar: Contemporary Educational Theory

An exploration of how educational philosophy, research paradigms and theories are manifested in contemporary educational research debates and dialogues. Through an intensive examination of a range of theories that inform studies in education, students gain an advanced and comprehensive understanding of contemporary educational theory within the Canadian and international contexts. Prerequisite: EDUC 8013 and EDUC 8023. EDUC 8043 is a corequisite of EDUC 8033.

## EDUC 8043 Focused Educational Studies

A focused exploration of research topics reflective of the current roster of doctoral students. In a seminar setting, individual students study the research and theoretical literature in the educational area(s) that background and inform their research interest(s). Prerequisite: EDUC 8013: and EDUC 8023. EDUC 8033 is a corequisite of EDUC 8043.

## EDUC 8053 Advanced Research Seminar: Focus on Methods

Students gain detailed knowledge and technical expertise related to methods appropriate to their research question(s), aligned with philosophical and methodological orientations. Issues related to research design process are addressed, as they differ from method to method. Prerequisite: EDUC 8013 and EDUC 8023.

EDUC 8063/8073 Special Topics Educational Studies
An exploration of a selected topic in educational studies to provide students with detailed knowledge and further preparation for advanced research. Prerequisite: EDUC 8013 and EDUC 8023.

## EDUC 8o83/8093 Independent Study

An Independent Study related to topics in educational studies. The curriculum for this course will be determined by the supervisor of the course in consultation with the student and other faculty members, as necessary. Prerequisite: EDUC 8013 and EDUC 8023.

## EDUC 8109 Comprehensive Examination: Research/Scholarly Portfolio

 Develop and orally defend an extensive scholarly portfolio demonstrating sufficient breadth, depth, creativity and engagement to undertake substantive research in the field. Comprising 10-15 artifacts, students will demonstrate knowledge and competence in each of five areas: general, in-depth, research, professional and collegial, and teaching and instruction (graded Pass/Fail). Corequisite: Students complete the first five required courses (EDUC 8013, EDUC 8023, EDUC 8033, EDUC 8043, and EDUC 8053) and any additional special topics (EDUC 8063, EDUC 8073) and/or independent studies courses (EDUC 8083, EDUC 8093) while generating the contents of their portfolio.
## EDUC 899Z Dissertation

The dissertation must constitute a substantial and original contribution to the study of education. To complete this course, students must prepare a research proposal for approval by an appropriate faculty dissertation committee, complete the proposed study, and publicly defend the completed draft in a final oral examination (graded Pass/Fail). Prerequisite: successful completion of all course work and successful completion of EDUC 8109.

## EDUC 8990 Dissertation Continuation

## ENGLISH

Four courses will be chosen annually from the following list. Course offerings are based on coverage, variety, and faculty availability.

ENGL 5013 Special Topics in Literature and Culture 1<br>ENGL 5023 Special Topics in Literature and Culture 2<br>ENGL 5060 Scholarly Methods<br>ENGL 5113 Studies in Medieval Literature and Culture<br>ENGL 5213 Studies in Sixteenth-Century Literature and Culture<br>ENGL 5273 Studies in Postcolonial Literature and Culture<br>ENGL 5293 Studies in Renaissance Drama and Culture<br>ENGL 5313 Studies in Seventeenth-Century Literature and Culture<br>ENGL 5413 Studies in Eighteenth-Century Literature and Culture<br>ENGL 5513 Studies in Romanticism<br>ENGL 5553 Textual Studies<br>ENGL 5613 Studies in Nineteenth-Century Literature and Culture<br>ENGL 5713 Studies in Modern British Literature and Culture<br>ENGL 5813 Studies in American Literature and Culture<br>ENGL 5913 Studies in Canadian Literature and Culture<br>ENGL 5960 Graduate Thesis<br>ENGL 5973 Studies in Children's Literature

Please consult the department website for a list of courses available in a given year.
http://english.acadiau.ca

## GEOLOGY

## GEOL 5013 Appalachian Geology

An overview of the geology and tectonic evolution of the Appalachian mountain belt. Emphasis is on Atlantic Canada; however, the entire orogen is covered, and comparison is made with correlative mountain systems in Europe and elsewhere.

## GEOL 5226 Paleoecology

Principles of paleoecology and the application of these to actual field problems.

## GEOL 5303 Advanced Topics in Sedimentology

Advanced studies in sedimentology. Topics may include: carbonate sedimentology and diagenesis, phosphogenesis and phosphorite accumulation, iron formation sedimentology and petrography, sediment lithogeochemistry, and Precambrian oceanography.

## GEOL 5433/5443 Advanced Igneous Petrology

Modern approaches to theoretical and practical study of selected igneous rock groups petrography, geochemistry, magma genesis in relation to tectonic environment, relations to metallogenesis

## GEOL 5533 Advanced Metamorphic Geology

Studies in metamorphic geology, including some of structural-metamorphic geology, chemography, phase relationships of metamorphic rocks, tectonics and metamorphism.

## GEOL 5633 Applied Structural Geology

Structural methods used in the analysis of deformed rocks, statistical treatment of data, sections, polydeformation, low to high metamorphic grade terrains, migmatite and gneiss, granite tectonics and fabrics, mylonite.

## GEOL 5703 Quaternary Paleoecology

Principles of Quaternary paleoecology and the application of these to actual field problems with special emphasis on Holocene climate change.

## GEOL 5713 Quaternary Environments

An advanced treatment of specific topics in Quaternary geoscience with particular emphasis on methods of investigating environmental change. Topics covered will include methods of paleoclimate reconstruction, advanced dating techniques, records of Holocene climate change, exploration in glaciated terrain.

## GEOL 5823 Advanced Geochemical Material Transfer

Introduction to the theory of material transfer and its use in interpreting geochemical and mineralogical controls on rock composition, including water-rock and melt-crystal reactions and physical grain fractionation. Interpretation of results using petrologic hypothesis testings and error propagation.

## GEOL 5833 Advanced Exploration and Environmental Geochemistry

 Geochemical principles and techniques applied to mineral exploration and applied geochemistry. Includes theory of dispersion, natural precipitation barriers, solubility, sorption and the design and execution of geochemical surveys, analysis of samples and interpretation of results, including statistical evaluation technologies.
## GEOL 5873 Advanced Mineral Deposits

Studies in economic geology, which may include the occurrence, characteristics, geochemistry and physical properties of a variety of mineral deposits, opaque mineral petrography and texture interpretation, and application of isotopic systematics, fluid inclusion microthermometry and other analytical procedures to studies of ore genesis.

## GEOL 5883 Advanced Mineral Exploration

Introduction to mineral exploration techniques, economic deposit evaluation strategies, and mining and processing methods. (3h lab).

GEOL 5903 Graduate Seminar Review of current research topics and problems in the Geological Sciences. Instruction on presenting seminars, writing papers and preparing abstracts may be included. Weekly seminars throughout the year.

## GEOL 5913/5923/5933 Special Topics in Geology

Review and analysis of selected topics and problems in Geology, utilising library, field and laboratory methods as required and involving preparation and presentation of formal papers. Specific topics, format, and content of the course will be established for each student by the department.

## GEOL 5960 Graduate Thesis

## APPLIED GEOMATICS

GEOM 5903 Applied Geomatics Seminar
Review of current research topics and problems in the Geological Sciences. Instruction on presenting seminars, writing papers and preparing abstracts may be included. Weekly seminars will be held throughout the year. It may be co-taught with GEOL 5903 and BIOL 5113/5123.

## GEOM 5913/5923/5933 Special Topics in Applied Geomatics

Review and analysis of selected topics and problems in applied geomatics using field and laboratory methods as required and involving the preparation and presentation of formal papers or reports. Specific topics, format and content of the course will be established for each student by the NSCC Applied Geomatics Research Group advisor and the relevant department.

## GEOM 5990 Applied Geomatics Research Project

The Applied Geomatics Research Project consists of a technical report, the form of which is determined by the project sponsoring proponent(s), the academic advisors and the candidate. This course will be evaluated by a committee which will normally consist of the proponent and the CoGS and Acadia advisors. A syllabus distinct to each project will be developed and approved by the supervisory committee before commencement.

## INTERDISCIPLINARY STUDIES (IDST)

## IDST 5186 Peacekeeping: Critical Perspectives

This course examines all the elements of modern peacekeeping from consolidating security to ensuring good governance and promoting economic rehabilitation. It also looks at the major players involved on both the military and civilian sides including NGOs and presents a series of peacekeeping missions.

## MATHEMATICS AND STATISTICS

Most of the following courses are also offered at the undergraduate level, though the graduate courses will have additional requirements (assignments, projects, presentations, etc.). Credit cannot be obtained both for a graduate course and for the undergraduate course with the corresponding number (4xxx instead of 5 xxx ) and title. Courses will be chosen in consultation with the supervisor.

## MATH 5223 Applied Statistical Methods

The course offers a survey of advanced statistical methods including advanced modelling techniques, survival analysis, analysis of contingency tables and nonparametric methods.

Computer based empirical evaluation methods are introduced. The use of SAS and other statistical software will be emphasized.

## MATH 5233 Statistical Consulting

The course aims to develop broad guidelines for a comprehensive approach to data analysis. Topics include data preparation, outlier detection and exploratory data analysis. Criteria for the selection of suitable methodologies are discussed as well as model validation methods and empirical evaluation methods. The course will be based largely on case studies.

## MATH 5243 Applied Stochastic Processes

Convergence concepts in probability theory will be reviewed. Types of stochastic processes studied include renewal processes, random walks, Gaussian processes and martingales. Applications in financial mathematics, actuarial science and operations research will be considered.

## MATH 5333 Cryptography

This course is an introduction to modern cryptographic techniques and their mathematical foundations. Review of elementary number theory and algebra; classical cryptosystems; encryption standards; public key cryptosystems; e-Business applications; digital signatures. Elliptic curve cryptography and quantum cryptography may be included.

## MATH 5423 Advanced Numerical Methods

Numerical differentiation and integration, numerical solution of differential equations, optimization. The solution of problems on a computer forms an integral part of the course.

## MATH 5513 Topology

Axioms for topological spaces; closure, interior and boundary operators; separation axioms; relativization; bases and subbases; mappings and continuity; compactness, connectedness, product spaces; metric spaces; completeness, nets and filters.

## MATH 5523 Measure and Integration

Measurable sets. Lebesgue and Stieltjes integrals in $\mathrm{R}^{2}$ and abstract spaces. Selected applications.

MATH 5553 Real Analysis Elements of points set topology in $\mathrm{R}^{2}$ and metric spaces. Sequences of functions, uniform convergence. Derivatives. Multivariate and vector differential calculus. Multiple Riemann integrals. Jordan Content.

## MATH 5613 Theory of Optimization

Linear and convex programming, convex functions and duality; Lagrange multipliers; Kuhn-Tucker methods. Topics may include: genetic algorithms, simulated annealing.

## MATH 5623 Discrete and Combinatorial Optimization

The course emphasizes practical algorithms in discrete optimization. It provides an introduction to polyhedral theory and complexity theory. Topics in general integer programming include facets and strong valid inequalities, Lagrangean relaxation and duality, and analysis of general purpose algorithms such as branch and bound and cutting plane algorithms.

## MATH 5733 Mathematical Modelling

Aspects of mathematical modelling, dimensional analysis, multiple scale analysis, asymptotic methods, difference equations, calculus of variations.

MATH 5753 Partial Differential Equations
Topics may include linear second order partial differential equations (parabolic, elliptic, and hyperbolic), separation of variables, eigenfunction expansion, Fourier series, method of characteristics, nonlinear waves.

MATH 5763 Signal Processing Approximation theory, Fourier analysis, wavelet analysis, discrete signal processing, applications to audio and image processing and coding.

MATH 5810 Research Seminar Preparation and practice for participating in research seminars. Includes attending all department research seminars and presenting once in each term.

# MATH 5823 Topics in Applied Statistics <br> MATH 5843 Topics in Applied and Industrial Mathematics <br> MATH 5863 Topics in Mathematics <br> MATH 5883 Topics in Statistics <br> MATH 5960 Msc Thesis 

## POLITICS

POLS 5043 Critical Political Theory
"Critical theory" refers to a tradition of holistic, interdisciplinary political theory grounded in a critique of domination. Thinkers studied in this course may include Adorno, Baudrillard, Benjamin, Butler, Derrida, Foucault, Haraway, Jameson, and Marcuse. Emphasis is placed on close reading and discussion of primary texts.

## POLS 5103 Canadian Government and Politics 1

Special topics course in Canadian government and politics.

## POLS 5143 Masters Colloquium

This colloquium course provides a forum for MA students to develop and present their thesis proposal and ongoing research, as well as introducing them to significant theoretical and methodological approaches to Political Science. Prerequisite: Admission into the Graduate program.

## POLS 5183 International Relations 1

Special topics course in International Relations.

## POLS 5193 Comparative Government 1

Special topics course in comparative government and politics.

## POLS 5203 Politics in The Maritimes

An exploration of political changes in Maritime Canada. Particular attention is paid to regional political cultures, electoral styles, party politics, leadership, federalism, Maritime Union, and public policy.

## POLS 5243 Environmental Political Theory

This course examines whether or how the values of justice, democracy, and ecological sustainability can be mutually compatible. Competing visions of "the good life", strategies, for political change, and conceptions of "nature" are examined in light of contemporary environmental crises.

This seminar course explores the role of IOs in global politics. It considers their historical origins and evolution, the political, economic, and social forces that impact their operations, and their effectiveness.

## POLS 5293 Politics of Development

This seminar course critically explores politics and political economy in the Third World, beginning with a discussion of "development." Subsequently, it explores legacies of colonialism, strategies and political impact of economic development, violent and peaceful political transitions, and factors mobilizing global and local civil society and social movements. Prerequisite: Admission into the Graduate program.

## POLS 5303 Approaches to the Study of Canadian Politics

This course critically examines theoretical and methodological approaches to issues prominent in the literature on Canadian politics and government. We explore the theoretical and methodological assumptions and policy implications of issues including the role and nature of the Canadian state, national and sub-national political cultures, party competition, and elites.

## POLS 5343 Political Theory 1

This course develops ideas central to political philosophy by means of analytic and interpretive inquiry. The specific 'topic' for each offering is available from the department.

## POLS 5383 International Relations 2

This course explores the key theories of international relations and world politics.
Readings will be selected from classic and contemporary writers.

## POLS 5403 Canadian Constitutional Law

The role of the judiciary in the Canadian federal process and major constitutional problems traced back to Confederation. Discussion of the leading constitutional decisions of the Privy Council, the Supreme Court of Canada and the major trends in Canadian constitutional law including the Charter and the Division of Powers. Prerequisite: Admission into the Graduate program.

## POLS 5443 Political Theory 2

An advanced seminar in political philosophy which examines either a central concept or important works in the tradition of political philosophy. The particular content for each offering is available from the department at fall registration.

## POLS 5483 Politics of New Global Technologies

This seminar explores political implications of advances in science and technology. in addition to the political impact of mass media, robotics and nuclear technology, we explore the impact of cyber-technology, bio-technology, nano-technology on war, security, human rights, global governance and democracy. We ask how technological change affects the future of the world.

## POLS 5543 Directed Readings: Special Topics

Directed readings by MA students under the supervision of an individual faculty member.

## POLS 5603 First Nations Peoples: Law, Politics and Policy in Canada

Explores the socio-political, historical, legal, economic and cultural aspects of the decolonization and self-determination efforts of First Nations peoples. Students will explore the multiple dimensions of aboriginality, the evolution of Aboriginal-State relations, the legal battles for Aboriginal rights to land, resources, and self-government. Prerequisite: Admission into the Graduate program.

## POLS 5693 Democracy and the Market

Explores contemporary challenges to democratic and democratizing states in the context of economic globalization. Theoretical analysis concentrates on the relationship between economic and democratic development and its influence on demands for and distribution of rights and material benefits. Theories illustrated using case studies from developed and developing societies. Prerequisite: Admission into the Graduate program.

## POLS 5743 Political Economy

A survey of theories and models which have sought to explain the interrelationships among the state, the society, and the economy of a country, and the relationship between political power and economic and social (under)development in the context of globalization.

## POLS 5783 Applied International Ethics

This seminar course is a critical exploration of ethical dilemmas in contemporary international politics. A special emphasis will be placed on cosmopolitan and communitarian approaches to issues such as international justice; war; terrorism; global poverty; sovereignty; human rights; women's rights; humanitarian affairs and intervention; and the environment. Prerequisite: Admission to the Graduate program or permission of the instructor.

## POLS 5803 Canadian Public Policy

The social, political, cultural, and institutional forces which shape the form and content of public policy, the rationality of the policy process, the mushrooming of state activities, and the actual impact of governmental programs. Prerequisite: Admission into the Graduate program.

## POLS 5883 Politics of Human Rights

This course examines what human rights mean, why they matter, and how they have come to influence contemporary global politics. We explore the political, legal and ethical dimensions of human rights standards from a variety of perspectives in Political Science and the subfield of International Relations. Prerequisite: Admission into the Graduate program.

## POLS 5893 Theory and Politics of Citizenship

Explores what citizenship means, how it develops, and how it is practiced in globalizing and multicultural societies. Theoretical debates about the meaning of citizenship will be complemented by case studies exploring migration/immigration, multiculturalism in advanced democracies, and struggles for the rights of women and indigenous peoples. Prerequisite: Admission into the Graduate program.

## POLS 5960 Graduate Thesis

## POLS 5983 The Politics of Asia/Pacific

This seminar explores modern and global issues affecting the Asia/Pacific community. The course explores three important analytic frameworks: global/regional, "glocal" and local. The global/regional focus explores institutional governance, security and economic issues before and after the Cold War. The "glocal" focus develops the competing flows that complicate the global/regional framework. The local focus explores how global connections emerge within local events. Prerequisite: Admission into the Graduate program

## PSYCHOLOGY

## PSYC 5013 Seminar

This course involves directed study in the student's field of interest, in preparation for thesis research, undertaken with the student's advisor. Can be in seminar or directed readings format.

## PSYC 5023 Adult and Child Assessment: Foundations

This course provides a foundation in psychological assessment for adults and children. The course covers the assessment process, test construction issues, diagnosis using the current version of DSM, interviewing skills, and report writing. In addition, major personality and cognitive psychological tests will be covered which assess personality, behaviour, intelligence, and achievement.

## PSYC 5033 Adult and Child Assessment: Advanced Skills

This course build upon the foundation in psychological assessment for adults and children provided in PSYC 5023. In addition to the psychological tests of PSYC 5023, additional tests will cover perceptual and memory deficits, emotional and behavioural adjustment, neuropsychological function, and other topics. Report writing will be emphasized, and students will conduct psychological assessments in the field. Prerequisite: PSYC 5023.

## PSYC 5043 Ethical Decision Making

This course emphasizes recognizing ethical issues and applying problem-solving methods to reconcile conflicting values. A broad array of ethical issues is embodied in cases given to students for analysis. The Canadian Psychological Association's Code of Ethics provides the major set of orienting guidelines and rules.

## PSYC 5053 Psychotherapy 1: Foundations

This course examines various major theories and procedures in the field of psychotherapy including psychoanalytic, humanistic/ existential, behaviour/cognitive and family therapies. The therapeutic relationship and its importance to the therapist and the client are evaluated. Basic interview and therapy skills are introduced and rehearsed via roleplaying, examination of case materials, and practice interviews.

## PSYC 5063 Psychotherapy 2: Intervention Skills

This course builds upon a good working knowledge of the current version of the DSM and familiarity with the basic models regarding problem formulation and treatment. Focus is on short-term therapeutic skills and interviewing techniques.

## PSYC 5113/5123 Research Design and Statistics 1/2

This course will cover univariate and multivariate statistical procedures used in psychology. Emphasis is placed on the general linear model and how to apply the model as a function of data type, experiment design, and hypothesis testing strategy. Opportunities to apply concepts taught in lectures will be provided through regular assignments.
Prerequisite: PSYC 5113 or permission of the department.

## PSYC 5960 Graduate Thesis

An empirical thesis is required of all candidates. A successful formal defence of the thesis proposal is required, and is normally completed by the beginning of second year. The thesis defence normally takes place at the end of the second year.

## PSYC 6023 Advanced Research

Non-thesis research which must be carried out under the supervision of one of the faculty members of the Department other than your thesis supervisor. This is an optional elective course, normally initiated by the student, who secures the permission of the faculty member involved. Prerequisite: Permission of the department.

PSYC 6063 Internship in Community Psychology
in this course students involve themselves in a community project approved by the instructor. Possible experiences include: consultation, program evaluation, or needs assessment. Prerequisite: A course in community psychology and permission of the instructor.

PSYC 6076 Practicum in Clinical Assessment and Psychological Interventions This course provides a minimum of 500 hours of supervised clinical experience. Students will be assigned to one or more programs providing clinical services where they will conduct psychological assessments and provide psychological interventions under the supervision of registered psychologists. The classroom component of the course involves activities designed to provide students with additional practicum-related support, exposure to special assessment and intervention topics, and guidance regarding career preparation. Enrolment in this course is limited to students in the psychology M.Sc. program, and by permission of the department. Prerequisite: PSYC 5023, 5033, 5053 and 5063.

## PSYC 6103 Seminar: Special Topics

This is a directed readings course taken under the supervision of one of the faculty members in the department; a student could also take an undergraduate course with additional course requirements to make it graduate-level. This course is an optional elective, normally initiated by the student, and taken with permission of the instructor involved. Prerequisite: Permission of the department.

## PSYC 6153 Advanced Clinical Techniques

This course is designed to allow graduate students to specialize in advanced and selected clinical areas. Advanced studies may be taken in areas such as family and marital therapies, group techniques, cognitive therapies, hypnosis and cognitive assessment. Prerequisite: PSYC 5023, 5033, 5053, and 5063.

## RECREATION MANAGEMENT

RECR 5113 Selected Topics in Recreation Management
Review and analysis of selected topics in recreation management. Specific topics, format and content of course are negotiated on an individual or small group basis with members of the faculty.

## RECR 5123 Selected Topics in Leisure Theory

Review and analysis of selected topics in leisure theory. Specific topics, format and content of course are negotiated on an individual or small group basis with members of the faculty.

## RECR 5543 Leisure Research

This course examines the application of research techniques and methodologies to leisure and recreation. The topics include discussion of current leisure research and evaluation, methodologies and analyses and research design.

## RECR 5553 Research Colloquium

Students will identify major questions associated with leisure and recreation, develop and apply appropriate research strategies for investigation, write and defend a paper. A summary suitable for publication should be included.

## RECR 5576 Recreation Management Practicum

This course is designed to integrate practical experience with applied research in a recreation management or allied field setting, or an in-depth exposure to post-secondary teaching in recreation management. The nature of the placement is determined by the student's interest in consultation with, and with the approval of, the graduate student's program supervisor.

## RECR 5693 Integrative Seminar in Leisure Studies

The seminar comprises an investigation of the relationships among the concepts, issues and problems associated with leisure and recreation. It is a theory-based approach to the process of identifying and critically examining the conditions which influence leisure in contemporary society. Seminars consist of discussions relative to student presentations and prescribed readings.

## RECR 5960 Graduate Thesis

Every candidate must prepare an approved thesis based on original work under the direction of a supervisor appointed by the school.

## SOCIOLOGY

## SOCI 5003 Graduate Seminar

This required seminar is the venue for discussions of on-going thesis work and meets biweekly during the regular academic year. Among other requirements, a thesis proposal is required to be presented and discussed.

## SOCI 5113 Sociological Theory

This required course considers, at an advanced level, at least three different approaches to theorizing as a creative element of sociology inquiry.

## SOCI 5123 Sociological Methodology

This required course considers, at an advanced level, at least three different methodological bases for creative sociological inquiry.

## SOCI 5203 Sociology of Work

This course examines the sociology of work in a variety of settings.

## SOCI 5223 Sociology of Occupations

This course focuses on selected theoretical and methodological issues in the sociology of occupations. Selected topics may include the changing occupational structure, occupational choice, occupational socialization, and professionalization.

## SOCI 5333 Sociology of Political Economy

This course focuses on selected theoretical and methodological issues in political economy.

## SOCI 5343 Sociology of Development

This course focuses on selected theoretical and methodological issues in the sociology of societal development.

## SOCI 5413 Sociology of Gender and Feminism

An examination of recent sociological research on gender.

## SOCI 5423 Sociology of Aging

This course focuses on selected theoretical and methodological issues in the sociology of aging.

## SOCI 5603 Special Topics 1

This course addresses the special interests of individual graduate students in an area of inquiry that is not covered by the general departmental areas of strength but which is a central concern of a faculty member.

## SOCI 5613 Special Topics 2

This course addresses the special interests of individual graduate students in an area of inquiry that is not covered by the general departmental areas of strength but which is a central concern of a faculty member.

## SOCI 5960 Thesis

## SOCIAL AND POLITICAL THOUGHT

SOPT 5113 Social and Political Thought Colloquium
This course will serve as an introductory course. in this course we will examine foundational and current debates in social and political thought, the nature of interdisciplinary inquiry, and the contested relationships between theory and practice.

SOPT 5213/5223 Social and Political Thought Directed Readings
This course provides students an individualized course of study on a chosen topic or author. No prerequisite.

SOPT 5960 Graduate Thesis

## UNIVERSITY RESOURCES

## Academic Success and Support Program (ASSP)

The Academic Success and Support Program enables students on probation to return to Acadia and work towards the skills required to be successful. The ASSP requires students to attend student success workshops, as well as to work with the program coordinator and other support staff in order to improve their academic standing.

## Acadia Entrepreneurship Centre

Ph: (902) 585-1180; entrepreneurship@acadiau.ca; acadiaentrepreneurshipcentre.com
Every Acadia student has the potential to be entrepreneurial. Entrepreneurship can be discovered in any facet of life, on or off campus - in academics, sports, music, clubs, and employment. Acadia's definition of entrepreneurship is the pursuit of success - personally, intellectually, socially, and in business. At the Acadia Entrepreneurship Centre we believe that an individual's vision is the driving force for attaining personal and entrepreneurial growth. We help students define their vision for the future and work with them to develop their ideas - whether it's a business, a social cause for community betterment, or a new innovation. Through curricular opportunities, the launchbox program and the Rural Innovation Centre we aim to assist students in the development of entrepreneurial skills, and help create an entrepreneurial culture on campus.

Our vision is that, upon graduation, Acadia students will be educated, self-confident, and innovative with a positive attitude towards future opportunities and the challenges they will face. Visit our website acadiaentrepreneurshipcentre.com for more information on credit and extra-curricular entrepreneurial opportunities available at Acadia.

## Acadia Students' Union

http://www.theasu.ca/; ask.asu@acadiau.ca
President: OldSUB 620, Phone: 902.585.2131.
Vice President Finance: OldSUB 621, Phone: 902.585.2124.
Vice President Academic OldSUB 619, Phone: 902.585.2127.
Vice President Programming: OldSUB 618, Phone: 903.585.2126.
Vice President Communications: OldSUB 616, Phone: 902.585.2125.
Acadia Students' Union is a not-for-profit, student governed organization dedicated to serving its members through effective representation and communication. The ASU was established in 1967 and works to offer innovative and quality services while providing a variety of opportunities which enhance the overall University experience of the students of Acadia.

The ASU Students' Centre, in which the ASU operates, focuses primarily on serving the needs of the student community by providing opportunities for non-academic activities and promoting an environment which features other services designed to complement and enhance student life. All students also have the right to access the services of the Vice President Academic of the ASU for any matter concerning their academics including, but not limited to, academic appeals, complaints, and tutoring services. Acadia Students' Union believes in and upholds the values of integrity, excellence, and respect, while recognizing the importance of fun, community spirit, and the tradition upon which the Union was founded.

Alumni Affairs<br>Alumni Hall; Ph: (902) 585-1459<br>alumni.office@acadiau.ca; http://alumni.acadiau.ca

It is the University's objective that graduates of Acadia will continue to possess the same sense of commitment to the University, and each other, that they experienced while members of the student body. The Office of Alumni Affairs, part of Acadia's Office of Advancement, engages graduates in the life of the university by coordinating annual class reunions, supporting regional branch activities, communicating about life on campus and the lives of alumni via electronic communication, mailings and the alumni magazine, the "Bulletin." The Office also organizes special events during the year such as the Alumni Gala Dinner, Homecoming and the Annual Alumni Golf Tournament and works closely with the Board of Directors of the Associated Alumni of Acadia University.

## Bookstore And Campus Store

Bookstore: Wheelock; Ph: (902) 585-1201; Fax: (902) 585-1064
0921mgr@follett.com; www.acadiashop.ca
Hours: Monday - Friday 9:00 a.m. - 5:00 p.m.; Saturday 11:00 a.m. - 3:00 p.m.
Campus Store: Athletics Complex; Ph:(902) 585-1903; Fax:(902) 585-1064
Hours: Monday - Friday 10:30 a.m. - 5:00 p.m.; Saturday 11:00 a.m. - 4:00 p.m. Open
during most Varsity games.
The goal of the Bookstore and Campus Store is to provide essential books and supplies at the lowest possible prices. An online book order service is available as well as books on beds delivery to residential students. A full special book order service is provided along with an extensive stock of Acadia branded merchandise, souvenirs and computer software. Text buybacks are held every day during normal business hours.

Students dropping courses will be permitted to return texts for refund or exchanges for a period not exceeding 7 days from the opening of each semester or 2 days from the date of purchase. In order to obtain full refund, books must be in perfect, unmarked condition. The student must provide proof of the course drop and cash register receipt.

## Campus Recreation Programming

The combined efforts of the Campus Programs Department and the Department of Varsity Athletics ensure a year round continuum of programs. Student growth occurs through participation in programming which ranges from self-directed recreational activities and Intramurals to high performance fitness, competitive and leadership opportunities.

Students enjoy a variety of options for self-directed fitness and recreation opportunities. The campus provides open space that can be used for free-time activities, such as soccer, touch football, and Ultimate. The campus has ready access to outdoor walking, jogging, and hiking trails for personal physical activity. Indoor activities include ice activities such as figure-skating, shinny, and broomball; court sports include basketball, volleyball, Frisbee and indoor soccer. Students may also use the fitness centre, courts and pool. All of these activities can be done individually or as a group.

## Career Services

Wu Welcome Centre (512 Main Street), Room 9; Ph: (902) 585-1233;
michelle.johnson@acadiau.ca; http://careerservices.acadiau.ca
Hours: 8:00 a.m. to 4:00 p.m. Monday to Friday
Career Services is open to all students in all disciplines. Career Services provides support to students through career advising (resume/cover letter consultations), workshops, online job postings, as well as employer recruitment and networking events.

## Chaplaincy

Manning Memorial Chapel and Students' Union Building
Ph: (902) 585-1203 or (902) 585-1752
timothy.mcfarland@acadiau.ca; http://chapel.acadiau.ca/
The Chaplaincy is provided by the university to enable the academic community to address the spiritual questions and needs which arise. There is a full-time university chaplain with offices on campus in the Manning Memorial Chapel and the Students' Union Building and who is always available for consultation. Worship services are held twice daily in the chapel and on Sunday evenings during term. These are Christian and ecumenical in orientation; arrangements are made for other major faith traditions to be celebrated on a regular basis. Regular student groups and Bible or topical studies are conducted within the chaplaincy program.

Five student chapel assistants are employed to assist in this program and take turns leading the morning service once a week. Local clergy participate in special worship services and, on occasion, when their schedules permit, serve as guest preachers on Sunday evenings, along with a host of professors and other university personnel.

## Co-Curricular Transcript Program

http://cct.acadiau.ca
The Co-Curricular Transcript is an official record of verified activities issued by Acadia University that complements, but are not a credited part of, your academic program or coursework. It is a unique and professional means for you to document and highlight extracurricular accomplishments, involvement in extracurricular activities, and additional learning developed outside of the classroom throughout your time at Acadia University. You will use this transcript to complement your academic transcript and resume when applying to employers, grad schools, coop placements, and scholarship programs.

## Coordinator International Education

Wong International Centre
Ph: (902) 585-1690 or 585-1865; Fax: (902) 585-1038;
http://international.acadiau.ca/; international@acadiau.ca
The Coordinator of International Education is responsible for the management of the Wong International Centre, individual international student advising, study abroad advising and exchange agreements, and program development. The coordinator provides orientations several times throughout the year to assist new international students on their arrival and is responsible for providing information and advice to all international students to help them adjust to life in Canada. The coordinator also acts as a liaison between international students and the community including domestic students, faculty, staff, the department of immigration and the town of Wolfville.

The Coordinator also arranges including pre-departure sessions and re-entry advising for the Acadia Study Abroad and Exchange Programs.

## Disability Access Services

Acadia Students' Union Centre, Old SUB Complex, Lower Level Ph: (902) 585-1246; http://accessiblelearning.acadiau.ca/
Acadia University is committed to creating and maintaining a learning environment open to all. We work to help students with disabilities to reach their academic potential and integrate into the greater university community.

Students with physical needs or learning disabilities are encouraged to identify any requirements to the Student Resource Centre by September of their first term. Prospective students are urged to contact the office and arrange a campus visit to assess the physical facilities and support services available.

Students who require specific individual accommodation to successfully complete their academic work (eg. extended periods of time for examinations) will be required to provide recent assessments. (no older than 5 years)

To ensure inclusion of students with special needs into residence life, Acadia residences are accessible. Residence applications should be accompanied by a letter outlining specific accommodation requirements based on a special need. Students are encouraged to contact matthew.guy@acadiau.ca to discuss their needs.

## Library Services

Vaughan Memorial Library; Web: http://library.acadiau.ca/
The University's library collections are housed in the Vaughan Memorial Library which provides a central focus for research and study services on campus. The library contains over 800,000 volumes, 2000 paper journals, government documents, microforms, videos, DVDs, audio tapes and over 15,000 e-journals and 120,000 e-books. Students can access the collections and services through their laptops from anywhere on campus, any time of day, and wireless is available throughout the library. There are group study rooms and the library is open seven days a week during the academic year. The library offers extensive training in research skills for all types of print and electronic information, including one-on-one research interviews by appointment and in-class instruction. Special Collections and the University Archives are housed in the Vaughan Memorial Library and they are an integral part of the university's resources. Numerous academic publications have resulted from research done by students and scholars using these collections.

## Registrar

1st Floor, University Hall
Ph: (902) 585-1222; Fax: (902) 585-1081
The Registrar's Office can help with many academic and non-academic questions registration, degree audits, prerequisites, verification of enrolment, convocation, important dates, courses, exams, academic regulations, etc. We're here to assist you on your journey and to keep you on your path. We'll do our best to answer your questions or put you in touch with someone who can.

## Residence Life

Old Student Union Building, 2nd Floor, Office 627
Phone: (902) 585-1417; http://residencelife.acadiau.ca/; residencelife@acadiau.ca
Residence Life staff is committed to ensuring the comfort and safety of all students living in residence. The mission of Residence Life is to provide students with a well-maintained, comfortable, secure and fun living environment that promotes social inclusiveness, responsibility, self-governance and accountability, academic achievement, community development, and personal fulfillment.

Acadia's residences offer a variety of room choices, including double rooms, single rooms and single rooms in shared suites. Our twelve residences range from small and quaint historic buildings, to large modern ones. Various living environments are offered to meet the needs of our students, including quiet sections, alcohol free, female only and upper year sections.

Student staff, consisting of Resident Assistants (RAs) and Senior Resident Assistants (SRAs), live in residence and act as a resource to all residential students. These are supported by our team of Residence Dons who are professional staff living in residence buildings. Residence Life offer various programs to promote academic success, community building, diversity, health-life skills and community service throughout the school year.

## Safety and Security

Students' Union Building, Room 519; Phone: (902) 585-1103
Web: http://security.acadiau.ca/Email: security@acadiau.ca
The Department of Safety and Security provide communication and patrol services twenty-four hours a day throughout the calendar year. We work in cooperation with the students, faculty and staff of Acadia University and the community of Wolfville to provide a safe and secure environment in which to live, study, work and relax on the Acadia University campus. In addition to standard security responsibilities for buildings and property, our services also include the walk home service, student campus patrol, parking services, lost and found, production, issuance and control of identification cards for students, faculty and staff, a nightly local shuttle service, locksmith/access control, incident investigations, event security and emergency planning. The Department of Safety and Security also employs approximately fifty students on a part-time basis throughout the year.

## Scholarships And Financial Assistance <br> 1st Floor, University Hall

Ph: (902) 585-1574, (902) 585-1543; Fax: (902) 585-1081
Email: financial.aid@acadiau.ca; http://financialaid.acadiau.ca
Hours: 8:30 a.m. to 4:30 p.m. Monday to Friday
The Scholarships and Financial Assistance Office administers the university undergraduate awards which include scholarships, prizes, awards, and the university bursary and loan program. The office promotes external scholarships and refers students to various external scholarship, bursary and award opportunities. It acts as liaison between students and the various provincial student assistance offices.

## Student Accounts

1st Floor University Hall
Ph: (902) 585-1297; Fax: (902) 585-1081;
Email: student.accounts@acadiau.ca
http://financial-services.acadiau.ca/Tuition_Fees.html
Hours: 8:30am - 4:30pm Monday to Friday
The Student Accounts office is the collection point and information contact for all student related fees and charges. The Student Accounts office assists students and their families with payments, student loan processing and acts as a liaison between students and the various provincial student assistance offices. The Student Accounts office collects all documentation regarding third party sponsors, external bursaries and scholarships and submits invoices each semester for these funds. The Student Accounts office issues Canada Revenue Agency taxation receipts annually for tuition costs (T2202) as well as T4a documents for any scholarship, bursary or honorarium payments.

## Student Health Services

Dennis House, West Door
Ph: (902) 585-1238
The health team is available to all Acadia University students for health/medical care. Students can see a physician by appointment or as a walk-in service. A registered nurse is available during clinic hours. The health centre staff offers a variety of health resources and will facilitate lectures, workshops and special health requests during the academic year.

Please provide your valid provincial health card if you are a Canadian resident or the Acadia Health Insurance (ASU health insurance) card if you are an international student. If you cannot provide either, a fee must be collected for each physician's visit. No other insurances will be accepted.

## Student Resource/Counselling Centre

Lower Level - OLD SUB
Ph: (902) 585-1246; Email: counselling@ acadiau.ca; http://counsel.acadiau.ca
Hours: 8:30 a.m. to 12 noon; 1:15 to 4:30 p.m., Monday to Friday
The Student Resource/Counselling Center offers counselling, academic, and accessibility supports that meet the diverse needs of the Acadia student population. We provide a client - centered, professional and confidential environment that values the whole student post- secondary experience. Within our counselling and psychotherapy services we work with students to develop and improve overall wellbeing as it relates to emotional, psychological, spiritual, and social health. Some of the issues that we work with include depression, anxiety, relationship, and stress. We also offer services related to career exploration and decision making.

Acadia University respects that students have diverse learning needs and through Accessibility Services we provide an individualized and inclusive support system for students with disabilities. The accommodations provided by Accessible Learning Services are based on recommendations outlined in students' medical and psychological educational documentation. These recommendations are varied and may include counselling, mentoring, tutoring, note-taking, assistive technology, exam accommodations, and access to government bursaries and grants.

For more information about Accessible Learning Services please contact: Dr. Abu Kamara, Coordinator of Accessible Learning, at abu.kamara@acadiau.ca, or Kathy O'Rourke, the Disability Resource Facilitator, at disability.access@acadiau.ca. Website: http://accessiblelearning.acadiau.ca/

## Technology Services

Beveridge Arts Centre and University Hall, Ground Floors
Phone: (902) 585-4357 (HELP) or (888) 609-3330 (toll free);
helpdesk@acadiau.ca; http://ts.acadiau.ca
Technology support is provided for students, faculty and staff at the Technology Service Desk on the ground floor of the Beveridge Arts Centre. Service Desk consultants are available by email, phone and walk-in. As well, there is a comfortable waiting area available with desks and network access for clients who need a temporary work space.

The Service Desk assists with academic application software, laptop problems, printing, and accessing the Acadia network. Laptop repair is available for models listed on the

Technology Services website, including warranty service for Windows and Macintosh laptops purchased through the Acadia Technology Store. Other Macintosh laptops may be eligible for warranty service as well. Specialized equipment is available for academic purposes including scanners, colour and black \& white laser printing, digital video cameras, and still photo cameras.

The campus network provides wireless Internet access in classrooms, libraries, dining areas, as well as many hotspots. Power outlets are generously distributed through the campus.

## Varsity Athletics

Visit www.acadiau.ca/sports
Acadia University is a member of the Canadian Interuniversity Sport (CIS) and Atlantic University Sport (AUS). Acadia's varsity teams compete annually for regional and national championships in women's and men's basketball, men's football, men's hockey, women's and men's soccer, women's volleyball, women's cross-country, women's rugby and women's and men's swimming. The University is proud of its strong athletic tradition, with a number of conference and national championships to its credit.

Varsity and club sports, recreation, intramurals and fitness activities utilize the university's athletic facilities which include: a gymnasium, an artificial multi-purpose field with a surrounding eight lane rubberized track and lighting; an arena with an Olympicsized ice surface; a 25 m swimming pool; six natural grass practice fields, indoor walking track with rubberized surface and a fitness centre. Acadia's athletic program dates back to 1875 and has gained national and international recognition as a competitive and successful athletic program.

## FACULTY AND STAFF

## Faculty Of Arts

## Office of The Dean of Arts

Hennessy, Jeffrey J., BSc (Trent), BMus (Acadia), MA (British Columbia), PhD (Toronto), Professor and Dean of Arts (Interim)
MacDonald, Cheryl A., Administrative Manager, Dean of Arts Office

## Department of Economics

Davis, Andrew, BSc(Memorial), MA, PhD (University of Rochester), Assistant Professor
Kayahan, C. Burc, BA (Marmara), MA, PhD (Guelph), Associate Professor Moussa, Hassouna, MA, PhD (Minnesota), Professor
Wang, Xiaoting, BA (Renmin), MA, PhD (Queen's), Assistant Professor
Van Blarcom, Brian BA, MA (Acadia), PhD (Clemson), Associate Professor

## Department of English and Theatre

Ahern, Stephen, BA (Queen's), MA (Carleton), PhD (McGill), Professor
Barratt, Susan, BFA (Concordia), Lecturer (Theatre)
Campbell, Wanda, BA (UNB), MA (Windsor), PhD (Western Ontario), Professor
Cunningham, Richard, BA (Simon Fraser), MA (Alberta), PhD (Pennsylvania State), Professor
Devine, Michael, BA, MFA (York), PhD (Toronto) Professor (Theatre)
Eustace, John, BA, MA (Saskatchewan), PhD (Queen's), Associate Professor
Fox, Barrington, PG Dip Ed (Sheffield), MA (Dalhousie), PhD (Sheffield/Dal.),
Part-time Lecturer
Hudson, Susann, BA (King's), MFA (UBC), Technical Director (Theatre)
Jewell, Claire, BA, BEd (Acadia), Instructor
La Rocque, Lance, BA, MA (Victoria), PhD (York), Associate Professor
MacPhee, Dianne, BA, MA (Acadia), Part-time Lecturer
Migliarisi, Anna, BFA (Windsor), MA, PhD (Toronto), Professor (Theatre)
Narbeshuber, Lisa, BA (Toronto), MA (Victoria), PhD (Toronto), Associate Professor
Quéma, Anne, License (Université de Savoie), MA (Carleton), PhD (Lond.), Professor
Rigg, Patricia, BA (Concordia), MA, PhD (Calgary), Professor
Saklofske, Jon, BA, MA (Saskatchewan), PhD (McGill), Professor
Schwenke Wyile, Andrea, BA (Bishop's), MA (UNB), PhD (Alberta), Professor
Seale, Robert, MFA (York), Associate Professor (Theatre)
Slights, Jessica, BA (Queen's), MA (British Columbia), PhD (McGill), Associate Professor
Vincent, Kerry, BA (Acadia), MA (British Columbia), PhD (Dalhousie), Associate Professor
Whetter, Kevin, BA (Trent), MA, PhD (Wales), Professor
Wyile, Herb, BA (Carleton), MA (McGill), PhD (New Brunswick), Professor

## Department of History and Classics

Brackney, William, BAH (Maryland), MA, PhD (Temple), Adjunct Professor Dalton, Laurie, BAH (Acadia), MA (Queen's), PhD (Carleton), Adjunct Professor
Dennis, Michael J., BA (Waterloo), MA, PhD (Queen's), Professor
Doerr, Paul W., BA, MA, PhD (Waterloo), Associate Professor
Duke, David F., BA, PhD (Alberta), Professor
Henderson, T. Stephen, BA, BEd (Acadia), MA, PhD (York), Associate Professor
Hewitt, Sonia, BA (Wilfred Laurier), MA (Queen's), PhD (McMaster), Assistant Professor
MacDonald, Jennifer, BA (Mount Allison), MA, DPhil (York, UK), Associate Professor
Moody, Barry, BA (Acadia), MA, PhD (Queen's), Professor Emeritus
Perrins, Robert, BA (McMaster), MA, PhD (York), Professor and Vice President (Academic) Interim
Poulter, Gillian, BSc (City, UK), BEd (Toronto), MA, PhD (York), Associate Professor
Provençal, Vernon, BA (King's), MA, PhD (Dalhousie), Professor
Seamone, Donna, BSc (Acadia), MDiv (Wilfred Laurier), PhD (Berkeley), Associate Professor and Lumsden Chair
Whaley, Leigh A., BA, MA (Victoria), PhD (York, UK), Professor and Mark Curry Chair
Whidden, James, BA (Dalhousie), Islamic Studies (McGill), MA, PhD (SOAS, London), Associate Professor

## Department of Languages and Literature

Alvarez, Maria Antonieta, BA (Laval), Lecturer
Baurin, Charles, Diplốme de Professeur (Couvin, Belgique), MA (Dalhousie), Lecturer
Best, Janice, BA (Western), MA, PhD (Strasbourg), Professor Emerita
Delpêche, Bernard, BA (Manitoba), MA (British Columbia), PhD (Toronto),
Associate Professor
Landgraf, Diemo, MA, Dr. Phil (Mannheim), Assistant Professor
Nolette, Nicole, BA(Alberta), MA(Alberta), PhD (McGill)
Proulx, Robert, BA (Concordia.), MA, Docteur ès Lettres (Ottawa), Professor
Saroli, Anna Mendel, BA (Dalhousie), PGCE (Coventry), MEd (Dalhousie),
Assistant Professor
Thomas, Christian Erik, BSc (Maryland), MA (British Columbia), PhD
(British Columbia), Associate Professor
Thon, Sonia, BA, MA, PhD (Toronto), Professor
Worvill, Romira, BA (Bristol), MA (Trinity, Dublin), MPhil, D.Phil. (Oxon), Professor

## School of Music

Adam, Mark, BMus (Calgary), MMus (Toronto), Instructor
Both, Christoph, MEd, MMus, Artist Diploma (Musikhochschule, Frankfurt/M; \& Goethe, Frankfurt/M), PhD (Victoria), Professor
Boyd, Michelle, BMus(Acadia), ARCT, MA, PhD (Toronto), Instructor II

Callon, Gordon, BMus and MMA (McGill), DMA (Washington), Professor Emeritus
Charke, Derek, BMus (North Texas), MMus \& Diploma (RAM), MMus \& PhD (SUNY Buffalo), Professor
Cormier, Eugene, BMus (Acadia), Instructor
Fisher, Stanley, BMus (Western), MMus and DMA (Michigan State), Professor Emeritus
Hansen, John, BMus, MMus and Artist Diploma (Toronto), Associate Professor
Hennessy, Jeffrey J., BSc (Trent), BMus (Acadia), MA (British Columbia), PhD (Toronto), Professor and Dean of Arts (Interim)
Hopkins, Mark, BMus (Toronto), BEd (Western), MMus (Calgary.), DMA (New England Conservatory), Professor
Lauzon, Paul, BA (New Brunswick), CMT (Emmanuel College), MMT (Southern Methodist), MTA (Music Therapist Accredited), Associate Professor Mallin, Claire, BMus (McGill), BMus (Music Therapy) (Quebec), MMus (Montreal), Instructor
Naylor, Steven, BA andBIS (Waterloo), PhD (Birmingham), Adjunct Professor
Price, Heather, BMusEd and MM (Toronto), DMA (Iowa), CMT (Acadia),
MTA, Instructor
Rockwell, Paula, BMus (Acadia), Artist Diploma with Honours (Toronto), Instructor
Rushton, Christianne, BMus (Acadia), MMus and Prof. Diploma (Manhattan
School), Artist Diploma (Juilliard), DMA (SUNY Stony Brook), Associate
Professor and Director of School of Music
Shorley, Ken, BFA (York), Instructor
Tomarelli, Ronald, BMus (Toronto), Instructor
Torbert, Jeffrey, Bmus (Dalhousie), Instructor

## Department of Philosophy

Abela, Paul, BA (Toronto), MA (Queen's), D. Phil (Oxford), Associate Professor Maitzen, Stephen, BA (Northwestern), MA, PhD (Cornell), Professor and The W. G. Clark Professor of Philosophy

Ramsay, Marc, BA (York), MA (Dalhousie), PhD (Western), Associate Professor
Wilks, Anna, BA (Victoria College), MA (Toronto), PhD (Toronto, Assistant Professor
Wilks, Ian, BA, MA, PhD (Toronto), Professor

## Department of Politics

Alexander, Cynthia, BA, MA (Alberta), PhD (Queen's), Professor
Biro, Andrew, BA (Toronto), MA, PhD (York), Professor and Department Head
Brickner, Rachel, BA (Michigan State), PhD (McGill), Associate Professor
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Crandall, Erin, BA(STU), MA (British Columbia), PhD(McGill), Assistant
Professor
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## Department of Sociology

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Auger, Jeanette A., BA (British Columbia), MA (British Columbia), PhD (British Columbia), Professor Emerita and Adjunct Professor
Bonner, Claudine, BSc (Toronto), MEd (OISE/Toronto), PhD (Western)
Assistant Professor
Brittain, James J., BA (UNB Saint John), MA (Acadia), PhD (UNB), Associate Professor
Dahringer, Heather A., BA (MSVU), MA (Dalhousie), PhD (Carleton), Professor
Frank, Lesley BA (King's), MA (Acadia), PhD (UNB), Associate Professor
Liinamaa, Saara, BA (Victoria), MA (York), PhD (York), Assistant Professor
Looker, Dianne, BA (Carleton), MA (Waterloo), PhD (McMaster) Professor
Emerita
Moore, Barbara, BA, MA (Acadia), Assistant Professor
Powers, Ann Marie, BA, MA (SUNY Albany), PhD (SUNY Stony Brook)
Adjunct Professor
Sacouman, R James, BA (Guelph), MA (Dalhousie), PhD (Toronto) Professor
Emeritus
Thomson, Anthony, BA, BEd, MA (Dalhousie), PhD (Cambridge), Adjunct
Professor

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Hare, Rosie, Administrative Assistant, Dean of Professional Studies Office

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Karsten, Richard, BMath Hons (Waterloo), PhD (Alberta), Professor
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## School of Nutrition and Dietetics

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## Department of Physics

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## Department of Psychology

Major, Sonya E., BSc (Dalhousie), MA, PhD (Western), Professor and Head (on leave)
Bleile, Karmen, BSc (Calgary), PhD (McMaster), Instructor
Brodeur, Darlene, BA (Dalhousie), MA (Western), PhD (British Columbia), Professor and Head (Acting)
Champed, Sophie, BSc (Montreal), PhD (McGill), Assistant Professor
Hayes, Joseph, BAH (St. Francis Xavier), MA, PhD (Alberta), Assistant Professor
Holmberg, Diane, BAH (Waterloo), MA, PhD (Michigan), Professor
Jones, Stephanie, BScH (Mount St. Vincent,), MA (UNB), PhD (York), Instructor
Leiter, Michael P., BA (Duke), MA (Vanderbilt), PhD (Oregon), Canada Research Chair in Health and Wellness, Professor
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Potter, Susan, BSc (Victoria), PhD (McGill), Associate Professor
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Symons, Douglas K., BSc (McMaster), MA, PhD (Western), Professor

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Killacky, Christopher, BScH (Exeter), MA (Greenwich School of Theology), PhD (Potchefstroom), PGCE (Brunel). Associate Professor of Theology, Director of Undergraduate Programs, Director of Distance Education, Director of Technology
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## Visiting Professor

Stewart, John B., BEd (Acadia), MEd (UNB), EdD, MTS (Toronto), Visiting Professor in Pastoral Care and Counselling, Professor Emeritus in Education (New Brunswick)

## Professors Emerti

MacRae, Andrew D., MA, BD (Edinburgh), PhD (St. Andrews), DD (Campbellsville), DD (Acadia). Sheldon and Marjorie Fountain Professor of Evangelism and Mission Emeritus
Trites, Allison A., BAH (New Brunswick), BD (Eastern Baptist), ThM (Princeton), D. Phil (Oxford), DD (Acadia). Payzant Distinguished Professor of New Testament Emeritu

## Lecturers

Embree, Renée, BSc (Kinesiology) (Simon Fraser), MDiv, MAT (Acadia). Lecturer in Youth and Young Adult Ministry, Director of the Youth and Young Adult Ministry Program
Linkletter, Jody L., BA (Atlantic Baptist), MDiv (Acadia), PhD (Warwick). Lecturer in Youth and Family Ministries, Associate Director of Doctoral Studies Stairs, Dale O., BA (Atlantic Baptist), MDiv (Acadia), PhD cand (Free University of Amsterdam). Lecturer in Youth and Young Adult Ministry, Director of Crandall-Acadia Bachelor of Theology Partnership

## Professores Emeriti

Auger, Jeanette A., BA, MA, PHD (British Columbia), Sociology Basaraba, Joseph, BScA, MScA (Toronto), PhD (Rutgers), Biology
Bedingfield, E. Wendy, BPE (Memorial), MSc (Oregon), PhD (Indiana), Kinesiology
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Lewis, Roger C., BA, MA, PhD(Toronto), English
Linton, Everett Percival, BSc (Mount Allison), MSc, PhD (McGill), Chemistry
Looker, Dianne, BA (Carleton), MA (Waterloo), PhD (McMaster), Sociology
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Magarvey, Raymond Halliday, DSc, BSc (Acadia), MSc (McGill), Physics
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Müldner, Tomasz, MSc (Warsaw), PhD (Polish Academy of Science), Computer Science
Ness, Gary W., BA, MA (Western), PhD(Alberta), Kinesiology
Northey, Anthony, BA(McGill), MA(Queen's), PhD. (McGill), German
Ogilvie, Kelvin K., BSc (Acadia), PhD (Northwestern), FCIC, Chemistry Oliver, Leslie H., BSc, MSc(Acadia), PhD(McGill), ISP, Computer Science
O’Neill, Patrick T.H., BA (Victoria), MS, PhD(Yale), Psychology
Reekie, Edward G., BSA, MSc (Sask.), PhD (Illinois), Biology
Robertson, Brenda, BSc, MR (Acadia), PhD (Oregon), Recreation
Management
Roscoe, John M., BSc, MSc (Acadia), PhD (McGill), FCIC, Chemistry

Roscoe, Sharon G., BSc (British Columbia), MSc, PhD (McGill), FCIC, Chemistry
Snow, Douglas Oscar, BSc (Acadia), MSc (Brown), PhD (Queen's), Mathematics
Sumarah, John, BA (St. Francis Xavier), MEd, EdD(Toronto), Education
Thompson, Raymond H., BA (Queen's Belfast), MA(Michigan), PhD(Alberta), English
Toews, Daniel P., BSc, MSc (Alberta), PhD (British Columbia), Biology
Tomek, Ivan, MSc (Liberec, Czechoslovakia), PhD (Alberta), Computer Science
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Neilson, Maggie, YCW (NBCC), B.Sc. (Agr.), (NSAC), MLIS (Dalhousie), Librarian
Pash, Anthony, BA (Mount Allison), MLIS (Western), Librarian
Patterson, Erin, BA (Huron College), MA, MLIS, (Western), Librarian
Richard, Jennifer, BSc (Saint Francis Xavier), MLIS (Dalhousie), Librarian
Robicheau, Wendy, BA (St. Mary's), MA (St. Mary's), Archivist
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