



**ACADEMIC CALENDAR**  
**2019-2020 edition**

**Part III: Academic Degrees, Programs and  
Courses**

# 11 ACADEMIC PROGRAMS

This section provides complete outlines of the specific requirements for all degrees and/or certificates, as well as information regarding pre-professional requirements. Students completing a B.Comm., B.Mus. or B.F.A. will find all of their overall degree requirements plus an outline of specific courses required in this section. Students completing B.A. or B.Sc. Minors, Majors or Honours programs should consult the overall degree requirements outlined in this section plus the more specific Minor, Major and Honours requirements listed per program in the Programs/Courses of Instruction section which follows. Those students planning further study in Medicine, Law, Dentistry and other professional programs should consult the information regarding pre-professional requirements at the end of this section and the calendars of professional schools.

## 11.0 Course Numbering and Credit Values

- 11.1 General Regulations
- 11.2 Bachelor of Arts Degree
- 11.3 Bachelor of Science Degree
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- 11.5 Bachelor of Commerce Degree
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- 11.7 Bachelor of Fine Arts Degree
- 11.8 Certificate of Bilingualism
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- 11.10 Pre-Professional Requirements
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## 11.0 Course Numbering and Credit Values

Each course is identified by a four-digit number, and carries a certain credit value.

The first digit indicates the year in which the course is normally taken.

The second digit sometimes indicates a stream or category of courses within one department.

The third digit specifies a particular course within the department.

The fourth digit indicates the credit value of the course. A 6 credit course extends through Fall and Winter terms and has a fourth digit of zero, with the exception of MSCI 5990 which extends through multiple terms and has no credit value; a 3 credit course usually lasts one term only and has a fourth digit of one. A few 3 credit courses extend through the Fall and Winter terms and have a fourth digit of three. One credit courses have a fourth digit of nine and extend throughout both Fall and Winter terms.

**Note:** Both Fall and Winter terms must be completed to obtain credit for full year courses.

Requirements for degree programs are stated in terms of such course numbers and their accumulated credit values. Typically, a degree requires a minimum 120 credits, earned by passing some combination of 6 credit (two term) and 3 credit (one term) courses. A typical Major requires 60 credits; a typical Minor requires 24 credits.

**Note:** A grade of D (D+, D, D-) in any course will be considered a conditional (non-continuing) pass. In order for a course to be used to fulfill prerequisite requirements, a grade of C- or better must be

obtained. Otherwise, written permission of the appropriate Department or Program Co-ordinator must be obtained.

In any one year, it is only the University Timetable which specifies which courses are actually being taught that year, and in which terms.

**The listing of a course in the calendar is not a guarantee that the course is offered every year.**

## 11.1 GENERAL REGULATIONS

### 11.1.1 Graduating under one calendar

Students with continuous enrolment at the University may elect to graduate under any one calendar in force during their registration subject to the availability of courses with the following exceptions:

- a) Students returning after an interval of a year or more will be readmitted under the calendar in force when they return. Where necessary, an Academic Dean, in consultation with the Registrar, will interpret the student's past record in terms of the current curriculum.
- b) Students who are more than ten years from the start of their degree and are returning after an interval of a year or more will be readmitted under the calendar in force when they return. The University may have course work completed in previous years reassessed to determine its applicability to the current curriculum and degree program. In some cases students may be required to retake a course for which credit was previously earned. An Academic Dean, in consultation with the Registrar, will interpret the student's past record.

**Note:** This regulation applies only to curriculum changes affecting a student's degree program, as outlined in Section 11.0 - Academic Programs and Section 12.0 - Programs and Courses of Instruction.

### 11.1.2 B.A. and B.Sc. Degree Requirements

The Bachelor of Arts (B.A.) and Bachelor of Science (B.Sc.) degrees achieve a balance of breadth, depth and coherence by including these four features in each student's academic program:

- a) The Bachelor's degree requires the completion of 120 credits worth of course work.
- b) Six credits must be earned in each of the four distribution areas: Arts, Humanities, Natural Science, and Social World. (see 11.2.2 and 11.3.2)
- c) A specified minimum number of credits earned at an advanced level must be included. (see 11.2.3 and 11.3.5)
- d) One of the following must be completed: a Major plus a Minor; a Double Major; a Joint Major; a General degree of three Minors; or the most specialized degree an Honours program. It is also possible for students to design a program of their own. (See Regulations 11.2.13, 11.2.20, 11.3.17 and 11.3.23)

### 11.1.3 Declaration of Major, Minor, Honours

B.A. and B.Sc. students, in consultation with the designated Program Advisor, must formally declare a Major and a Minor **by the end of the academic session in which they will have achieved third year standing or upon completion of 54 credits**. Students should refer to the specific program requirements of their intended Major or Minor. Those opting to do a Double Major or Triple Minor must, in consultation with the designated Program Advisor, declare their intention **by the end of the academic session in which they will have**

**achieved third year standing or upon completion of 54 credits .**

Students can change their choice of program after further consultation with a Program Advisor. A 'Declaration/Change of Major/Minor' form is available on the Registrar's Office web page.

Those opting to do an Honours Program must declare their intention by **December of the year in which they are registered with third year standing** by completing a 'Declaration of Intention to Pursue Honours' form available on the web.

Students must consult with the Department Head or Program Co-ordinator with respect to application processes and admission criteria.

## 11.2 BACHELOR OF ARTS

### 11.2.1 Requirements for a B.A. Degree

In order to qualify for a Bachelor of Arts degree, a student must complete 120 credits including:

- Six credits must be earned in each of the four distribution areas: Arts, Humanities, Natural Science, and Social World, as listed in 11.2.2
- A minimum of 36 credits from the 3/4000 level
- One of the following must be completed: a Major plus a Minor; a Double Major; a Joint Major; a General degree of three Minors; or the most specialized degree an Honours program. It is also possible for students to design a program of their own, in consultation with an Academic Dean. (See Regulations 11.2.4, 11.2.6, 11.2.8, 11.2.9, 11.2.13, and 11.2.20)

### 11.2.2 Distribution Requirements

Distribution requirements must be earned as follows:

- Six credits must be earned from each of the four main distribution areas. Sub-categories and their descriptions are provided to guide choice and assist students in selecting courses. Selecting courses from different sub-categories within each of the main categories is recommended but not required. Courses that are listed in more than one sub-category under a main distribution area can only be counted once within that distribution area.
- Only one course (3 credits) from a single discipline (subject area/course code) may be used to fulfill distribution requirements.
- Courses that may be used to satisfy distribution requirements are identified both in the lists here and in course descriptions contained in Section 12 of this calendar (Programs and Courses of Instruction). Exceptions, including 1991 courses and non-designated 1000 level transfer credits, may be approved by a Dean in consultation with the appropriate Department.

**Note:** Courses that have been designated by a student to fulfill distribution requirements may also count towards the requirements for a major or minor.

Distribution areas are as follows:

#### ARTS

- Arts and Literature.** These courses involve analysis and appreciation of creative expression (literary texts, visual and performing arts, musical compositions) and the insight these give into human societies both past and present. They either emphasize critical and analytical approaches to artistic expression, or they engage students in creative practices.

CANA 1011, CANA 2201

DRAM 1701 \*see note below

ENGL 1111, 1121, 1501, 1801 \*see note below

FINH 2101

FREN 1801, 2801

GERM 2701, 2811

SPAN 1801, 1811

VMCS 1201

MUSC 2001, 2011, 2021

\*DRAM/ENGL cross-listed courses (DRAM 1701) may not be used for distribution in combination with other English courses (ENGL 1111, 1121, 1501, 1801).

- Language and Culture.** These courses involve the study of language and learning a foreign language or culture, which enable students to gain insight into the many intersections between language and culture. Note: if a student is placed in a language course at a higher level than the course listed for distribution, the course at the higher level may be counted for distribution.

FREN 1651, 1811, 2841

GERM 1001

GREK 1001

JAPA 1001

LATI 1001

LING 2001

SPAN 1101, 1801, 1811

#### HUMANITIES

- Belief, Thought, and Meaning.** These courses examine aspects of philosophical, social, and religious systems, ideologies, and traditions. They allow students to explore and understand the ways in which value systems, and ethical thought interact with and shape systems of meaning, cultures, and everyday cultural practices.

CLAS 1651 \*see note below

PHIL 1600 series

RELG 1600 series, 2401, 2801, 2811, 2821, 2831, 2841

- Legacies of the Past.** These courses study past cultures and societies, their economic, political, and social development over time, as well as human responses to change. Some focus on certain historical periods, while others examine the processes of change over time from a comparative perspective.

CLAS 1631, 2021, 2501 \*see note below

HIST 1600 series, 2001, 2011, 2031, 2041, 2411, 2421, 2511,

2731, 2741 \*see note below

VMCS 1301

\*CLAS/HIST cross-listed courses (CLAS/HIST 1631 and 2021) may not be used for distribution in combination with other Classics or History courses.

#### NATURAL SCIENCE

- Analytic and Quantitative Reasoning.** These courses involve analytic reasoning and might include the study of abstract structures or the analysis and interpretation of quantitative and categorical information. They often introduce methods of problem solving and logical thinking in approaching these types of information.

COMP 1631

ECON 1701

MATH 1111, 1151, 1251, 2311

PHIL 2611  
 PHYS 1041, 1051

- b) **Living World.** These courses introduce the study of the living world through observation and experimentation. They employ scientific methods to investigate questions and concepts encountered in the life sciences.

BIOC 1001  
 BIOL 1201  
 PHYS 1021  
 PSYC 1001

- c) **Physical World.** These courses introduce the study of the physical world and non-living materials. They explore the laws governing its processes and phenomena as well as the methods used in its investigation.

CHEM 1001  
 GENS 1401  
 PHYS 1021, 1031, 1041, 1051, 1401

### SOCIAL WORLD

- a) **Diversity and Identity.** These courses consider aspects of human behaviour and interaction, social institutions, and cultural norms and encompass such themes as diversity and identity.

ANTH 1011  
 SOCI 1001  
 WGST 1001

- b) **Citizenship, Power and Politics.** These courses consider aspects of social institutions as they inform such themes as citizenship, power and politics.

ANTH 1011  
 POLS 1001  
 CANA 1001  
 SOCI 1001

- c) **Humanity, Nature, and the Economy.** These courses consider aspects of human behaviour and interaction, social institutions, and how they impact nature and the economy.

ANTH 1011  
 ECON 1001, 1011  
 GENV 1201, 2001  
 SOCI 1001

### 11.2.3 3/4000 Level Courses

A minimum of 36 credits must be earned from courses at the 3000 and/or 4000 level. At least 30 credits must be from Mount Allison courses.

### 11.2.4 Credits Required for a Major and Minor

The credits required for a B.A. include those required for a Major [see list under 11.2.15], plus the credits required for a Minor from any other program [see lists under 11.2.21 and 11.3.24]. **No more than 9 credits can be counted in common between the Major and Minor.** Where there are more than 9 credits of requirements in common, the credit value of the combined program will still be at least 15 credits greater than the total for the Major. The Major and Minor are recorded on the student's transcript.

Although the combination of a Major and a Minor as called for in 11.2.4 is the usual means of achieving a B.A. degree, other combinations are possible, as outlined in 11.2.5 through 11.2.9.

### 11.2.5 Additional Minor

Students who satisfy the requirements for more than one Minor will have the additional Minor(s) recorded on their transcript.

### 11.2.6 Double Major

Students who (in lieu of the Minor required in 11.2.4) satisfy the requirements for a second Major from any other program [see lists under 11.2.15 and 11.3.18], will have achieved a B.A. with a Double Major, and will have both Majors recorded on their transcript. **No more than 24 credits can be counted in common between the two Majors.** Even where there are requirements in common, the credit value of the combined program will be at least 36 credits greater than the total for the first Major.

### 11.2.7 Joint Major

Students who (in lieu of the Minor required in 11.2.4) satisfy the requirements for a Joint Major [see list under 11.2.16] will have achieved a B.A. with a Joint Major.

### 11.2.8 Honours Degree

Students who (in lieu of 11.2.4) satisfy the requirements for an Honours degree [see 11.2.22] will have achieved a B.A. with Honours, and will have the Honours program recorded on their transcript.

### 11.2.9 General Degree with Three Minors

Students who (in lieu of 11.2.4) satisfy the requirements for three Minors [see 11.2.17] will have achieved a B.A. General Degree, and will have this title plus all Minors recorded. A triple Minor will not total fewer than 72 credits, despite requirements in common. Students pursuing this option are reminded that Regulation 11.2.3 must still be fulfilled.

### 11.2.10 The Major as Required for the B.A.

The Major is designed to be approximately one half the course work a student completes toward a B.A. degree, providing the depth and rigour which can be achieved either by work within one discipline or through course work carefully planned under a theme. As called for in 11.2.4, this requirement can be satisfied by completing the courses specified in any one of the named Major listed in 11.2.15, according to one of the options outlined in 11.2.11 through 11.2.14.

### 11.2.11 Disciplinary Major

A Disciplinary Major consists of a selection of courses worth 60 credits, with a minimum of 36 and a maximum of 42 credits required from a single discipline or department. This type of Major gains its coherence from the traditional discipline from which it is drawn. Provision is made within each Major for 18 credits, usually drawn from outside the Major discipline, intended to complement and enrich the Major.

### 11.2.12 Interdisciplinary Major

An Interdisciplinary Major consists of a selection of courses worth 60 credits, in most cases. This type of Major gains its coherence from a theme, or approach held in common by its component courses. Such programs are authorized in advance by Senate.

### 11.2.13 Joint Major

A joint major consists of a selection of courses from two disciplines that have very few, if any, courses that may be counted in common (as under a double Major), that are combined in such a way that while they may not qualify for a complete major in either discipline, there are sufficient courses (normally 42 to 45 credits from each discipline) to qualify for a joint major (maximum 90 credits).

### 11.2.14 Specially Approved Major

A Specially Approved Major consists of a selection of courses worth 60 credits. This type of Major gains its coherence from a carefully thought-out combination of available courses which has not received prior authorization from Senate. **Approval for this type of Major must be obtained from the appropriate Dean, in consultation with the Registrar, by the end of the third year.**

### 11.2.15 Majors Available for the B.A.

For the B.A., the following Majors are available. For a complete list of courses required for each Major, see the appropriate heading under Programs and Courses of Instruction.

#### Disciplinary

- Art History
- Classical Studies
- Commerce
- Computer Science
- Economics
- English
- Fine Arts
- French Studies
- Geography
- Hispanic Studies
- History
- Mathematics
- Music
- Philosophy
- Political Science
- Psychology
- Religious Studies
- Sociology

#### Interdisciplinary

- American Studies
- Canadian Public Policy
- Canadian Studies
- Drama
- Environmental Studies
- International Relations
- Modern Languages, Literatures and Cultures
- Philosophy, Politics, and Economics

### 11.2.16 Joint Majors Available for the B.A.

For the B.A., the following Joint Majors are available. For a complete list of courses required for each Joint Major, see the appropriate heading under Programs and Courses of Instruction.

#### Interdisciplinary

- Geocomputing (pending MPHEC approval)

### 11.2.17 The Minor as Required for the B.A.

The Minor is designed to be a minimum number of courses by which a student can achieve a modest sense of coherence in another field of study. As called for in 11.2.4, this requirement can be satisfied by completing the courses specified in any one of the named Minors listed in 11.2.21, (or under 11.3.24) according to one of the options outlined in 11.2.18 through 11.2.20.

### 11.2.18 Disciplinary Minor

A Disciplinary Minor consists of a selection of courses worth 24 credits, at least 6 of which must be completed at the 3000 and/or 4000 level. This type of Minor gains its minimum of coherence from the traditional discipline from which it is drawn.

### 11.2.19 Interdisciplinary Minor

An Interdisciplinary Minor consists of a selection of courses worth 24 credits, at least 6 of which must be completed at the 3000 and/or 4000 level. This type of Minor gains its coherence from a theme, or approach held in common by its component courses. Such programs are authorized in advance by Senate.

### 11.2.20 Specially Approved Minor

A Specially Approved Minor consists of a selection of courses worth 24 credits, at least 6 of which must be completed at the 3000 and/or 4000 level. This type of Minor gains its coherence from a carefully thought-out combination of available courses which has not received prior authorization from Senate. **Approval for this type of Minor must be obtained from the appropriate Academic Dean, in consultation with the Registrar, by the end of the third year.**

### 11.2.21 Minors Available for the B.A.

For the B.A., the following Minors are available along with those listed under section 11.3.24. For a complete listing of courses required for each Minor, see the appropriate heading under Programs and Courses of Instruction.

#### Disciplinary

- Art History
- Classical Studies
- Commerce
- Computer Science
- Economics
- English
- Fine Arts
- French Studies
- Geography
- German Studies
- Greek
- Hispanic Studies
- History
- Latin
- Mathematics
- Music
- Philosophy
- Political Science
- Psychology
- Religious Studies
- Sociology

**Interdisciplinary**

American Studies  
 Canadian Studies  
 Drama  
 Environmental Studies  
 Geographic Information Systems (G.I.S.)  
 International Economics and Business  
 International Politics  
 Japanese Studies  
 Museum and Curatorial Studies  
 Women's and Gender Studies

**11.2.22 Disciplinary and Interdisciplinary Honours Programs**

Honours programs represent the most specialized selection of courses to gain depth and coherence within one discipline or thematic area. They have traditionally provided the preparation most appropriate for post-graduate work in that field. The requirements for Honours extend beyond that of the Major, and so the regulation requiring a Minor is waived (see 11.2.4 and 11.2.8), although any student who completes a Minor from another discipline or program, will have this Minor recorded on his or her transcript. Academic regulation 10.10.5 governing the granting of Honours should be consulted. Students considering an Honours Program should consult as early as possible with the designated Program Advisor regarding the prescribed selection of courses.

**11.2.23 Honours Programs Available for the B.A.**

Under the B.A. Degree, the following Honours Programs are available. Each assumes that the student also meets the requirements of 11.2.2 and 11.2.3. For a complete listing of courses required for each Honours Program, see the appropriate heading under Programs and Courses of Instruction.

**Disciplinary**

Classical Studies  
 Computer Science  
 Computer Science and Mathematics  
 Economics  
 English  
 French Studies  
 Geography  
 History  
 Mathematics  
 Music  
 Philosophy  
 Political Science  
 Psychology  
 Religious Studies  
 Sociology

**Interdisciplinary**

American Studies  
 Canadian Studies  
 Economics and Mathematics  
 Environmental Studies  
 International Relations  
 Modern Languages, Literatures and Cultures

**11.2.24 Complementary Courses and Prerequisites**

If a course prerequisite or the requirements of a Major or Honours program specifies complementary courses from Arts and Letters, Humanities, or Social Sciences, courses from the following departments and programs fall within these groups:

**Arts and Letters**

Art History  
 Drama  
 English  
 Fine Arts  
 French Studies  
 German Studies  
 Hispanic Studies  
 Japanese Studies  
 Linguistics  
 Music

**Humanities**

Canadian Studies  
 Classics  
 Greek  
 History  
 Latin  
 Philosophy  
 Religious Studies  
 Women's and Gender Studies

**Social Sciences**

Anthropology  
 Commerce  
 Economics  
 Geography and Environment (GENV)  
 International Relations  
 Political Science  
 Sociology  
 Women's and Gender Studies

**11.3 BACHELOR OF SCIENCE****11.3.1 Requirements for a B.Sc. Degree**

In order to qualify for a Bachelor of Science degree, a student must complete 120 credits including:

- Six credits must be earned in each of the four distribution areas: Arts, Humanities, Natural Science, and Social World, as listed in 11.3.2
- 12 credits must be earned from the Science Core as outlined in 11.3.3
- 72 Science credits of which a minimum of 30 credits must be from Science courses at the 3/4000 level (see 11.3.4 and 11.3.5)
- One of the following must be completed: a Major plus a Minor; a Double Major; a Joint Major; a General degree of three Minors; or the most specialized degree an Honours program. It is also possible for students to design a program of their own in consultation with the Academic Dean (See Regulations 11.3.6, 11.3.8, 11.3.10, 11.3.11, 11.3.17 and 11.3.23.)

**11.3.2 Distribution Requirements**

Distribution requirements must be earned as follows:

- a) Six credits must be earned from each of the four main distribution areas. Sub-categories and their descriptions are provided to guide choice and assist students in selecting courses. Selecting courses from different sub-categories within each of the main categories is recommended but not required. Courses that are listed in more than one sub-category under a main distribution area can only be counted once within that distribution area.
- b) Only one course (3 credits) from a single discipline (subject area/course code) may be used to fulfill distribution requirements.
- c) Courses that may be used to satisfy distribution requirements are identified both in the lists here and in course descriptions contained in Section 12 of this calendar (Programs and Courses of Instruction). Exceptions, including 1991 courses and non-designated 1000 level transfer credits, may be approved by a Dean in consultation with the appropriate Department.

**Note:** Courses that have been designated by a student to fulfill distribution requirements may also count towards the requirements for a major or minor.

Distribution areas are as follows:

### ARTS

- a) **Arts and Literature.** These courses involve analysis and appreciation of creative expression (literary texts, visual and performing arts, musical compositions) and the insight these give into human societies both past and present. They either emphasize critical and analytical approaches to artistic expression, or they engage students in creative practices.
- CANA 1011, 2201  
 DRAM 1701 \*see note below  
 ENGL 1111, 1121, 1501, 1801 \*see note below  
 FINH 2101  
 FREN 1801, 2801  
 GERM 2701, 2811  
 SPAN 1801, 1811  
 MUSC 2001, 2011, 2021  
 VMCS 1201  
 \*DRAM/ENGL cross-listed courses (DRAM 1701) may not be used for distribution in combination with other English courses (ENGL 1111, 1121, 1501, 1801).
- b) **Language and Culture.** These courses involve the study of language and learning a foreign language or culture, which enable students to gain insight into the many intersections between language and culture. Note: if a student is placed in a language course at a higher level than the course listed for distribution, the course at the higher level may be counted for distribution.
- FREN 1651, 1811, 2841  
 GERM 1001  
 GREK 1001  
 JAPA 1001  
 LATI 1001  
 LING 2001  
 SPAN 1101, 1801, 1811

### HUMANITIES

- a) **Belief, Thought, and Meaning.** These courses examine aspects of philosophical, social, and religious systems, ideologies, and traditions. They allow students to explore and understand the ways in which value systems, and ethical thought interact

with and shape systems of meaning, cultures, and everyday cultural practices.

CLAS 1651 \*see note below

PHIL 1600 series

RELG 1600 series, 2401, 2801, 2811, 2821, 2831, 2841

- b) **Legacies of the Past.** These courses study past cultures and societies, their economic, political, and social development over time, as well as human responses to change. Some focus on certain historical periods, while others examine the processes of change over time from a comparative perspective.

CLAS 1631, 2021, 2501 \*see note below

HIST 1600 series, 2001, 2011, 2031, 2041, 2411, 2421, 2511,

2731, 2741 \*see note below

VMCS 1301

\*CLAS/HIST cross-listed courses (CLAS/HIST 1631 and 2021) may not be used for distribution in combination with other Classics or History courses.

### NATURAL SCIENCE

- a) **Analytic and Quantitative Reasoning.** These courses involve analytic reasoning and might include the study of abstract structures or the analysis and interpretation of quantitative and categorical information. They often introduce methods of problem solving and logical thinking in approaching these types of information.

COMP 1631

ECON 1701

MATH 1111, 1151, 1251, 2311

PHIL 2611

PHYS 1041, 1051

- b) **Living World.** These courses introduce the study of the living world through observation and experimentation. They employ scientific methods to investigate questions and concepts encountered in the life sciences.

BIOC 1001

BIOL 1201

PHYS 1021

PSYC 1001

- c) **Physical World.** These courses introduce the study of the physical world and non-living materials. They explore the laws governing its processes and phenomena as well as the methods used in its investigation.

CHEM 1001

GENS 1401

PHYS 1021, 1031, 1041, 1051, 1401

### SOCIAL WORLD

- a) **Diversity and Identity.** These courses consider aspects of human behaviour and interaction, social institutions, and cultural norms and encompass such themes as diversity and identity.

ANTH 1011

SOCI 1001

WGST 1001

- b) **Citizenship, Power and Politics.** These courses consider aspects of social institutions as they inform such themes as citizenship, power and politics.

ANTH 1011

POLS 1001

CANA 1001  
SOCI 1001

- c) **Humanity, Nature, and the Economy.** These courses consider aspects of human behaviour and interaction, social institutions, and how they impact nature and the economy.

ANTH 1011  
ECON 1001, 1011  
GENV 1201, 2001  
SOCI 1001

### 11.3.3 Science Core

Twelve credits must be earned as follows:

- a) 6 credits from MATH 1111 or 1151 plus one of MATH 1121, 1251, 2211, 2221 or COMP 1631  
b) 3 credits from CHEM 1001 or PHYS 1041 or PHYS 1051  
c) 3 credits from BIOL 1001, BIOL 1501, BIOC 1001, GENS 1401, PSYC 1001 or PSYC 1011

### 11.3.4 Minimum Number of Science Credits

A minimum of 72 credits in Science must be earned from the Science disciplines.

### 11.3.5 3/4000 Level Science Courses

A minimum of 30 credits in Science must be earned from the 3000 and/or 4000 level. At least 24 credits must be from Mount Allison courses.

### 11.3.6 Credits Required for a Major and Minor

The credits required for a B.Sc. include those required for a Major [see list under 11.3.18], plus the credits required for a Minor from any other program [see lists under 11.3.21 and 11.2.24]. **No more than 9 credits can be counted in common between the Major and Minor.** Where there are more than 9 credits of requirements in common, the credit value of the combined program will still be at least 15 credits greater than the total for the Major. The Major and Minor are recorded on the student's transcript. Although the combination of a Major and a Minor as called for in 11.3.6 is the usual means of achieving a B.Sc., other combinations are possible, as outlined in 11.3.7 through 11.3.11.

### 11.3.7 Additional Minor

Students who satisfy the requirements for more than one Minor will have the additional Minor(s) recorded on their transcript.

### 11.3.8 Double Major

Students who (in lieu of the Minor required in 12.3.6) satisfy the requirements for a second Major from any other program [see lists under 11.3.15 and 11.2.18] will have achieved a B.Sc. with a Double Major, and will have both Majors recorded on their transcript. **No more than 24 credits can be counted in common between the two Majors.** Even where there are requirements in common, the credit value of the combined program will be at least 36 credits greater than the total for the first Major.

### 11.3.9 Joint Major

Students who (in lieu of the Minor required in 11.3.4) satisfy the requirements for a Joint Major [see list under 11.3.19], will have achieved a B.Sc. with a Joint Major.

### 11.3.10 Honours Degree

Students who (in lieu of 11.3.6) satisfy the requirements for an Honours degree [see 11.3.25] will have achieved a B.Sc. with Honours, and will have the Honours program recorded on their transcript.

### 11.3.11 General Degree with Three Minors

Students who (in lieu of 11.3.6) satisfy the requirements for three Minors, at least two of which must be in Science (see 11.3.20) will have achieved a B.Sc. General Degree, and will have this title plus the three (or more) Minors recorded on their transcript. A triple Minor will not total fewer than 72 credits, despite requirements in common. Students pursuing this option are reminded that Regulations 11.3.4 and 11.3.5 must still be fulfilled.

### 11.3.12 Courses which Qualify as Science Credits

For purposes of Regulation 11.3.4 and 11.3.5 only, all courses offered in the following disciplines are considered as Science credits: Biochemistry, Biology, Chemistry, Computer Science, Mathematics, Physics, and Psychology. The following courses outside of these disciplines may also count as Science credits: COMM 3411, ECON 3301, 3821, 4700, 4801, 4811, all GENS courses from the Department of Geography and Environment, PHIL 2511, 3511. Exceptions, including 1991/2991/3991/4991 courses, may be approved by the Dean of Science in consultation with the appropriate Department.

### 11.3.13 The Major As Required for the B.Sc.

The Major is designed to be approximately one half the course work a student completes toward a B.Sc. degree, providing the depth and rigour which can be achieved either by work within one discipline or through course work carefully orchestrated under a theme. As called for in 11.3.6, this requirement can be satisfied by completing the courses specified in any one of the named Major in Science listed in 11.3.18, according to one of the options outlined in 11.3.14 through 11.3.17.

### 11.3.14 Disciplinary Major

A Disciplinary Major in Science consists of a selection of courses worth 60 to 72 credits, with a minimum of 36 and a maximum of 42 credits required from a single discipline or department. This type of Major gains its coherence from the traditional discipline from which it is drawn. Provision is made within each Major for credits under 11.3.3.

### 11.3.15 Interdisciplinary Major

An Interdisciplinary Major consists of a selection of courses worth 60 to 84 credits. This type of Major gains its coherence from a theme, or approach held in common by its component courses. Such programs are authorized in advance by Senate.

### 11.3.16 Joint Major

A joint major consists of a selection of courses from two disciplines that have very few, if any, courses that may be counted in common (as



under a double Major), that are combined in such a way that while they may not qualify for a complete major in either discipline, there are sufficient courses (normally 42 to 45 credits from each discipline) to qualify for a joint major (maximum 90 credits).

### 11.3.17 Specially Approved Major

A Specially Approved Major consists of a selection of courses worth 60 to 72 credits. This type of Major gains its coherence from a carefully thought out combination of available courses which has not received prior authorization from Senate. **Approval for this type of Major must be obtained from the appropriate Academic Dean, in consultation with the Registrar, by the end of the third year.**

### 11.3.18 Majors available for the B.Sc.

For the B.Sc., the following Majors are available. For a complete listing of courses required for each Major, see the appropriate heading under Programs and Courses of Instruction.

#### Disciplinary

- Biology
- Chemistry
- Computer Science
- Mathematics
- Physics
- Psychology

#### Interdisciplinary

- Aviation
- Biochemistry
- Cognitive Science
- Environmental Science

### 11.3.19 Joint Majors available for the B.Sc.

For the B.Sc., the following Joint Majors are available. For a complete listing of courses required for each Joint Major, see the appropriate heading under Programs and Courses of Instruction.

#### Interdisciplinary

None available at this time

### 11.3.20 The Minor as Required for the B.Sc.

The Minor is designed to be a minimum number of courses by which a student can achieve a modest sense of the coherence in another field of study. As called for in 11.3.6, this requirement can be satisfied by completing the courses specified in any one of the named Minors listed in 11.3.24 (or under 11.2.21), according to one of the options outlined in 11.3.21 through 11.3.23.

### 11.3.21 Disciplinary Minor

A Disciplinary Minor consists of a selection of courses worth 24 credits, at least 6 credits of which must be completed at the 3000 and/or 4000 level. This type of Minor gains its minimum of coherence from the traditional discipline from which it is drawn.

### 11.3.22 Interdisciplinary Minor

An Interdisciplinary Minor consists of a selection of courses worth 24 credits, at least 6 credits of which must be completed at the 3000 and/or 4000 level. This type of Minor gains its coherence from a theme, or

approach held in common by its component courses. Such programs are authorized in advance by Senate.

### 11.3.23 Specially Approved Minor

A Specially Approved Minor consists of a selection of courses worth 24 credits, at least 6 of which must be completed at the 3000 and/or 4000 level. This type of Minor gains its coherence from a carefully thought out combination of available courses which has not received prior authorization from Senate. **Approval for this type of Minor must be obtained from the appropriate Academic Dean, in consultation with the Registrar, by the end of the third year.**

### 11.3.24 Minors Available for the B.Sc.

For the B.Sc., the following Minors are available along with those listed under 11.2.21. For a complete listing of courses required for each Minor, see the appropriate heading under Programs and Courses of Instruction.

#### Disciplinary

- Applied Physics
- Biology
- Chemistry
- Computer Science
- Mathematics
- Physics
- Psychology

#### Interdisciplinary

- Astronomy
- Biochemistry
- Environmental Science
- Geographic Information Systems

### 11.3.25 Disciplinary and Interdisciplinary Honours Programs

Honours programs represent the most specialized selection of courses to gain depth and coherence within one discipline or thematic area. They have traditionally provided the preparation most appropriate for post-graduate work in that field. The requirements for Honours extend beyond that of the Major, and so the regulation requiring a Minor is waived (see 11.3.6 and 11.3.10), although any student who completes a Minor from another discipline or program will have this Minor recorded on his or her transcript. Academic regulation 10.10.5 governing the granting of Honours should be consulted. Students considering an Honours Program should consult as early as possible with the designated Program Advisor regarding a prescribed selection of courses.

### 11.3.26 Honours Programs Available for the B.Sc.

Under the B.Sc. Degree, the following Honours Programs are available. Each assumes that the student also meets the requirements of 11.3.2 through 11.3.5. For a complete listing of courses required for each Honours Program see the appropriate heading under Programs and Courses of Instruction.

#### Disciplinary

- Biology
- Chemistry
- Computer Science and Mathematics
- Mathematics

Physics  
Psychology

**Interdisciplinary**

Biochemistry  
Cognitive Science  
Environmental Science  
Mathematics and Physics

## 11.4 MASTER OF SCIENCE

Graduate work is approved for the Master of Science in Biology and Master of Science in Chemistry.

### 11.4.1 Dean of Graduate Studies

All graduate work is administered by the Dean of Graduate Studies. Upon receiving recommendations from the Department concerned, the proposed supervisor, and the Office of the Registrar, the Dean of Graduate Studies will decide upon admission. In case of discordant recommendations the application will be revisited by the Dean of Graduate Studies, the Provost, the proposed supervisor, the department head, and an independent member of the university community (faculty or administration) selected by the proposed supervisor and Dean. The Dean of Graduate Studies will oversee the program of study, and on receipt of satisfactory evidence of the completion of the studies, will recommend the awarding of the degree.

### 11.4.2 Minimum Admission Requirements

- a) A four-year Bachelor of Science degree with a minimum Cumulative Grade Point Average (CGPA) of 3.0 (on 4.3) or the equivalent with research experience in the intended field of study or its equivalent from a University of recognized standing (students with relevant professional experience and international students from institutions with different academic norms will be considered on a case by case basis); and
- b) As English is the primary language of instruction at Mount Allison University, students must possess a mastery of English as outlined in section 3.7 of the Calendar.
- c) Two letters of reference
- d) A letter of support from the proposed Mount Allison supervisor including the duration, amount, and source of financial support offered to the student

**Note:** Applicants should submit a completed application form, curriculum vitae, a set of official transcripts, and arrange to have two letters of reference forwarded to the Dean of Graduate Studies. Applicants are also expected to contact potential supervisor(s) about the possibility of carrying on advanced study and research with them prior to application.

### 11.4.3 Time Required

- a) The minimum time from admission to a graduate studies program to defense of the thesis is three academic terms.
- b) The thesis should be defended within eight academic terms for a full-time student and fifteen academic terms for a part-time student.
- c) If extenuating circumstances prevent a student from completing a graduate studies program within the normal period specified, the Dean of Graduate Studies may grant an extension of up to one academic term.

## 11.4.4 Course and Thesis Requirements

- a) All candidates must:
  - i) complete a minimum of two to a maximum of four 3 credit graduate level courses as determined by the supervisory committee and confirmed by the Dean of Graduate Studies;
  - ii) complete a research program and a thesis based on this research; and
  - iii) participate in a departmental seminar series.
- b) Within one month of a student's admission to the program, the supervisory committee will:
  - i) formulate a list of the number and type of graduate courses for that candidate; and
  - ii) forward this list to the Dean of Graduate Studies for confirmation.
- c) When a department intends to offer a graduate studies course, it must submit course information at least one month in advance to the Dean of Graduate Studies for approval.
- d) The format of the written thesis will follow the rules for graduate theses as described in the graduate handbook.
- e) Both a bound paper copy and an electronic copy (Microsoft Word or pdf file format) of the thesis must be made available to the members of the candidate's Examining Committee at least three weeks prior to its defense.

## 11.4.5 Standards of Achievement

The candidate must achieve a grade of at least B- in each course required for the degree, and also must pass a public oral examination on the thesis and related material.

## 11.4.6 Supervisory Committee

Within one month of admission, a committee will be appointed for each candidate by the Dean of Graduate Studies on the recommendation of the research supervisor who will be its chair. The Supervisory Committee shall consist of the research supervisor who will act as chair and a minimum of two other qualified individuals. It will be the responsibility of this committee to review periodically the progress of the candidate, read the thesis and conduct the oral examination which will be presided over by the Dean of Graduate Studies or designate. The Thesis Examining Committee will also include a qualified reader external to the university who has had no involvement in the project appointed by the Dean of Graduate Studies in consultation with the supervisor. A grade of 'Pass' or 'Fail' will be assessed for the thesis and its defense by the candidate's Thesis Examining Committee. If a 'Fail' evaluation is rendered, the supervisory committee will decide if and what remedial measure must be undertaken to obtain a 'Pass' grade. The candidate will have six months to meet these conditions.

## 11.4.7 Master of Science Course Listing

### BIOL 5991 (3.00 CR)

#### GRADUATE LEVEL TOPIC IN BIOLOGY

**Format:** Variable

**Prereq:** Registration in the M.Sc program and permission of the Department Head and course instructor

### CHEM 5991 (3.00 CR)

#### GRADUATE LEVEL TOPIC IN CHEMISTRY

**Format:** Variable

**Prereq:** Registration in the M.Sc program and permission of the Department Head and course instructor

### MSCI 5990 (0.00 CR)

#### GRADUATE THESIS

**Format:** Independent Study/Thesis

**Prereq:** Registration in the M.Sc. program

## 11.5 BACHELOR OF COMMERCE

### 11.5.1 Primary Objective

The primary objective of the Mount Allison University Commerce program is to explore with students the nature of the business world, and thus help them acquire business knowledge and skills. Studies focus on the process of effective problem solving and decision making in the business environment through the development of management systems which combine quantitative analysis and human judgement. The Commerce program is designed to enable students to take courses in a variety of business subject areas (such as Accounting, Finance, Management, Marketing) while completing a Minor in a non-Commerce discipline. The Commerce degree at Mount Allison University is highly flexible, reflecting the diverse business society that students will enter after graduation.

### 11.5.2 Requirements for a Bachelor of Commerce Degree

In order to qualify for a Bachelor of Commerce degree, a student must complete 120 credits including:

- 6 credits earned in each of the two distribution areas of Arts and Letters and Humanities (see 11.5.3)
- A minimum of 42 credits from the 3/4000 level (see 11.5.4)
- 42 credits from the Commerce Degree Core Program requirements as listed in 11.5.5
- 27 additional Commerce elective credits, with at least 24 credits from 3/4000 level courses (see 11.5.6)
- Courses which satisfy the requirements of a Minor (see 11.5.7) *Note: this requirement is waived for students pursuing Honours in Economics*
- Elective credits with no more than 9 from Commerce courses (see 11.5.8)

### 11.5.3 Distribution Requirements

Six credits must be earned from each of the following lists:

#### Arts and Letters

Art History  
Drama  
English

Fine Arts  
French Studies  
German Studies  
Hispanic Studies  
Japanese Studies  
Linguistics  
Music

#### Humanities

Classics  
Canadian Studies  
Greek  
History  
Latin  
Philosophy  
Religious Studies  
Women's and Gender Studies

Note: Social Science and Science distributions are fulfilled by Bachelor of Commerce degree requirements.

### 11.5.4 3/4000 Level Courses

A minimum of 42 credits must be earned from courses at the 3000 and/or 4000 level. At least 36 credits must be from Mount Allison courses.

### 11.5.5 Commerce Degree Core Requirements

The Commerce Degree Core Requirements are 42 credits earned as follows:

- 27 credits from Commerce 1011, 1411, 2101, 2131, 2201, 2301, 3501, 4311, 4321
- 6 credits from Economics 1001 and 1011
- 3 credits in Computer Science or Mathematics\* (excluding MATH 1011)
- 6 credits from Economics 1701 and 2701  
OR MATH 2311 and ECON 2701  
OR MATH 2311 and 2321  
OR PSYC 2001 and 2011  
OR SOCI 3301 and 3311  
OR WGST 3111 and WGST 3121  
OR COMM 3401 and GENV 3701

**\*Note:** MATH 1111 or 1151 is required for Honours in Economics (and recommended for students pursuing the Accounting stream of courses).

### 11.5.6 Commerce Electives on the Bachelor of Commerce Degree

In addition to the Commerce courses required for the Core, 27 credits from Commerce elective courses are required with at least 24 credits from 3/4000 level courses. All Commerce courses other than those in the Core of the program (see 11.5.5), as well as the following courses from other disciplines may also be counted as Commerce electives: Economics 3201, 3211, 3301, 3601, 3711, 3921, 4111, 4501, 4511, 4621, 4700, 4801, 4811, 4821, 4990, Computer Science 3851.

### 11.5.7 The Minor as Required for the Bachelor of Commerce

All Bachelor of Commerce students must complete a Minor in a non-Commerce discipline from the list below or a Specially Approved Minor (see 11.2.20). No more than 9 credits can be counted in common between the Minor and the courses counted in 11.5.5 and 11.5.6. Where there are more than 9 credits of requirements in common, the credit value of the combined program requirements will still be at least 84 credits. The Minor will be recorded on the transcript. Students who satisfy the requirements for more than one Minor will have the additional Minor(s) recorded on their transcript.

*Note: the regulation requiring a Minor is waived for students pursuing Honours in Economics.*

Minors Available for the Bachelor of Commerce

#### Disciplinary

- Art History
- Biology
- Chemistry
- Classical Studies
- Computer Science
- Economics
- English
- Fine Arts
- French Studies
- Geography
- German Studies
- Greek
- Hispanic Studies
- History
- Latin
- Mathematics
- Music
- Philosophy
- Physics
- Political Science
- Psychology
- Religious Studies
- Sociology
- Women's and Gender Studies

#### Interdisciplinary

- American Studies
- Canadian Studies
- Drama
- Environmental Studies
- Geographic Information Systems (GIS)
- International Economics and Business
- International Politics
- Japanese Studies
- Museum and Curatorial Studies

### 11.5.8 Elective Credits

The remaining credits beyond those completed to fulfill 11.5.3, 11.5.5, 11.5.6 and 11.5.7 may be from any discipline.

### 11.5.9 Honours Programs Available for the Bachelor of Commerce

Students who satisfy the requirements for an Honours program [see section 11.5.10, 11.5.11] will have achieved a Bachelor of Commerce with Honours, and will have the Honours program recorded on their transcript. Students with third year standing interested in pursuing Honours must apply to the Commerce Department by March 31, in the year in which they will have completed at least 84 credits. Students interested in pursuing Honours in Economics should contact the Economics Department. Academic regulation 10.10.5 governing the granting of Honours should be consulted. In addition to the prescribed Honours courses listed in 11.5.10 and 11.5.11, students must fulfill the general requirements for a Bachelor of Commerce degree as listed in 11.5.2. a), b), e), and f).

#### 11.5.10 Commerce with Honours

Honours in Commerce is 69 credits earned as follows:

- 42 from the Commerce core requirements (see 11.5.5)
- 6 from Commerce 4990
- 21 from Commerce electives at the 3/4000 level

#### 11.5.11 Commerce with Honours in Economics

Honours in Economics is 90 credits earned as follows:

- 42 from the Commerce core requirements (see 11.5.5)
- 12 from Economics 2001, 2011, 2101, 2111
- 12 from Economics 4001, 4011, 4700, 4801, 4811, 4821, 4990
- 12 from Economics at the 3/4000 level
- 12 from Commerce or Economics at the 3/4000 level

*Note: the regulation requiring a Minor is waived for students pursuing Honours in Economics*

#### 11.5.12 Commerce with Aviation Management (pending MPHEC approval)

Commerce with Aviation Management is 120 credits earned as follows:

- 42 from the Commerce core requirements (see 11.5.5)
- 12 from distribution courses comprised of 6 credits earned in Arts & Letters, and 6 credits earned in Humanities (see 11.5.3)
- 6 from GENS 1401, 2421
- 24 from Commerce electives, with at least 18 credits at the 3/4000 level including 3 credits from COMM 4991 Business of Aviation
- 36 credits twelve of which are designated at the 3000/4000 level as follows:
  - a) from Moncton Flight College through completing the requirements for flight training outlined in the Handbook for the Mount Allison Bachelor of Science (Aviation) including the Commercial Pilot Licence with Multi-engine and Instrument Flight Rules ratings, or
  - b) from Moncton Flight College by transfer after completion of the Diploma in Aviation Technology (Pilot), or
  - c) from Confederation College by transfer after completion of the Aviation Flight Management Diploma

*Note 1: the regulation requiring a Minor is waived for students pursuing a Bachelor of Commerce with Aviation Management*

*Note 2: Consultation with the Program Advisor for Aviation must occur before the student's second year of study.*

### 11.5.13 Major from Other Disciplines

Students who, in lieu of 11.5.7, complete a Major in a non-Commerce discipline as listed in 11.2.15 and 11.3.18 will have the Major recorded on their transcript. No more than 24 credits can be counted in common between the major and the courses counted in 11.5.5 and 11.5.6. Where there are more than 24 credits of requirements in common, the credit value of the combined program requirements will still be at least 105 credits. Students who satisfy the requirements for a Specially Approved Major (see 11.2.14) will have that Major recorded on their transcript.

### 11.5.14 Transferring to Commerce

Students applying to transfer into the Bachelor of Commerce program must have completed twelve credits from the following Core courses with grades of at least 'C-': COMM 1011, COMM 1411 or a Computer Science course, ECON 1001 and ECON 1011.

## 11.6 BACHELOR OF MUSIC

The Department of Music offers instruction leading to both the Bachelor of Music degree (B.Mus.) and the Bachelor of Arts in Music. The former is professionally oriented, whereas the latter (B.A. Major or Honours in Music) is designed for the student with a more general interest in music. A Minor in Music is available to students in any program. The Bachelor of Music degree is offered without designated majors, and allows the student considerable latitude to put emphasis on any of the subject areas: Music Theory and Composition; Music History and Literature; Music Education and Performance. It is designed to develop well-rounded musicians in practical, theoretical, and historical areas, as well as to provide a sound education in the liberal arts. This versatility of approach is in keeping with the wide-ranging demands which are placed on the musician of today.

### 11.6.1 Financial Assistance

Students applying for studies in Music are eligible for University general entrance scholarships in addition to those specifically established for students in Music. For detailed information, refer to Section 5, Financial Assistance.

### 11.6.2 Entrance Requirements for the Bachelor of Music Degree

- Each prospective student must meet the general admission requirements of Mount Allison.
- In addition, all prospective Bachelor of Music students must appear for an audition-interview as part of the application for admission. See the Department's website for detailed audition requirements for each instrument. Vocalists and instrumentalists may either provide their own pianist or have one provided by the University for a nominal fee. In addition, each applicant will be asked to write a one-hour Entrance Assessment. This Assessment is designed to reflect the applicant's background and perception in aural skills, written theory, and musical terms, and will determine placement in either MUSC 1001 or 1101. If the applicant cannot arrange to come to Sackville for a personal audition, an audition recording may be

sent directly to the Department of Music, and an Entrance Assessment will be sent upon request to the applicant's teacher to be administered by him or her.

- Prospective students should see the Department's website or contact the Department of Music directly for information about audition dates.

### 11.6.3 Requirements for Bachelor of Music Degree

In order to qualify for a Bachelor of Music Degree, a student must complete 120 credits including:

- 58 credits from the following required core:
  - 48 credits from MUSC 1101, 1111, 1201, 1211, 1703, 2101, 2111, 2201, 2211, 2703 and MUSC 1501, 1511, 2501, 2511, 3501, 4501
  - 3 credits from MUSC 3511, 3581, 3591; and 3 credits from MUSC 4511, 4581, 4591
  - 4 credits from MUSC 1619-4619, 1639-4639, 1659-4659, 1669-4669
- 33-36 credits from the following Music electives:
  - Theory and Composition (MUSC 2141, 2151, 3121, 3141, 3151, 3161, 4181)
  - Music History and Literature (MUSC 2021, 3001, 3201, 3221, 3231, 3261, 3271, 3281, 4221)
  - Music Education (MUSC 3301, 3311, 3321, 3331, 3341, 3351, 4311, 4361)
  - Performance Electives (MUSC 1521, 1601, 2603, 2613, 3401, 3411, 3421, 3603, 3613, 3801, 3813, 4603, 4613, 4803 and MUSC 1619-4619, 1629-4629, 1639-4639, 1649-4649, 1659-4659, 1669-4669, 1689-4689)
  - General Music Electives (MUSC 1991, 2991, 3991, 4991, 4951; these courses may be repeated if topics differ); COMM 3271, 4301; PHYS 1401
- 27-30 non-Music electives

**Note:** All piano and organ students registered for MUSC 1501 must also take MUSC 1601.

**Note:** All voice students must complete MUSC 1521 in the course of their degree. It is recommended that this course be completed within the first two years of study.

**Note:** Students who choose to take zero, one, or three ensembles as part of their Music electives will have to complete at least 121 credits to qualify for their Bachelor of Music degree.

**Note:** Performance Electives may be offered in one term only or over two terms. Please consult the timetable for specific information.

**Note:** COMM 3271, 4301, and PHYS 1401 may be used toward the degree either as general music electives or as non-Music electives.

### 11.6.4 Music Ensembles

All B.Mus. students must participate in a core ensemble during every year in which they are registered for an Applied Music or Recital course. The core ensemble will normally be determined by the Applied Music instructor in consultation with the student and the Ensemble Directors, and will be chosen to suit the student's interests and developmental needs, and the requirements of the ensemble program. All music ensembles run for two terms and are valued at one credit per year of participation. B.Mus. students may complete up to three elective ensemble credits in addition to their required core ensemble credits,

for a maximum of seven on their degree. Students in all other degree programs are eligible to complete up to six credits on their degree through ensemble participation.

The following may be taken for core ensemble credit; they may additionally be taken for elective credit: 1619-4619 Wind Ensemble; 1639-4639 Symphonic Band; 1659-4659 Elliott Chorale; 1669-4669 Choral Society. The following may only be taken for elective ensemble credit: 1629-4629 Chamber Orchestra; 1649-4649 Jazz Ensemble; 1689-4689 Special Ensemble. All ensembles are valued at 1 credit per year of participation.

Attendance and prompt arrival at all ensemble rehearsals and participation in all public performances are mandatory unless prior consent of the Director of the ensemble has been obtained. Preparedness for and active participation in rehearsals and performances, as well as regular attendance, are principal factors in the determination of the grade that the student will receive. The details of the application of this policy will be provided by Ensemble Directors at the beginning of each academic year.

### 11.6.5 Recitals

In addition to performing in Collegium programs, qualified students are given the opportunity to present credited full-length and shared solo recitals. These courses replace 3rd and 4th year applied courses as follows:

MUSC 3511 is replaced by either MUSC 3581 or MUSC 3591

MUSC 4511 is replaced by either MUSC 4581 or MUSC 4591

**Third year level shared and full recitals:** To be eligible to present a shared recital (MUSC 3581) or a full recital (MUSC 3591), a student must be recommended by their Applied Music instructor; must normally have achieved a grade of at least A- in MUSC 3501; must have participated in two Collegia, or the equivalent, since enrolling in the Bachelor of Music program; and must pass a Recital Application Jury.

**Fourth year level shared and full recitals:** To be eligible to present a shared recital (MUSC 4581), a student must be recommended by their Applied Music teacher; must normally have achieved a grade of at least A- in MUSC 4501; must have participated in two Collegia, or the equivalent, since enrolling in the Bachelor of Music program; and must pass a Recital Application Jury.

To be eligible to present a full recital (MUSC 4591), a student must be recommended by their Applied Music instructor; must normally have successfully completed MUSC 3581 or MUSC 3591; must normally have achieved a grade of at least A- in MUSC 4501; and must pass a Recital Application Jury.

## 11.7 BACHELOR OF FINE ARTS

The Department of Fine Arts, located in the Purdy Crawford Centre for the Arts Building, offers a unique opportunity for professional training in the Fine Arts in conjunction with all the benefits of a university campus. These include the stimulus of a broad intellectual environment, the facilities of a good library and a balanced program of social activities.

### 11.7.1 The Bachelor of Fine Arts Degree

The curriculum in Fine Arts leading to the degree of Bachelor of Fine Arts is primarily intended to develop creative ability in drawing, painting, photography, printmaking and sculpture. The major part of

the program consists of studio work, and includes instruction in the principles of design and the use of various media. In addition to the studio classes, attention is given to the artist's heritage through illustrated lectures and seminar courses in art history which are designed to improve the student's artistic judgement and assist in acquiring an ability to write and speak about works of art. Academic electives, which are chosen in consultation with the Fine Arts Department, are taken in other departments of the University. They are included in the curriculum with the aim of widening the student's understanding of the world, in the belief that the artist's domain pertains to all aspects of human endeavour.

### 11.7.2 Additional Admission Requirements

Each prospective student must meet the regular admission requirements of the University. While the course is designed so that it assumes no previous training on the part of the new student, applicants must give evidence of their suitability for work in this specialized field. Applicants are required to present a portfolio of their previous art work for assessment prior to admission to this program. Instructions for the submission of this portfolio will be sent to all applicants for admission to the program or can be found on the Fine Arts website. All portfolios are reviewed each year in February and late portfolios cannot be considered. Only a limited number of students can be accepted to the program.

### 11.7.3 Advanced Status

A student may be admitted to the second year of the program provided full entrance requirements are met and if the applicant presents evidence of having satisfactorily completed work, academic and artistic, equivalent to the prescribed work of the first year.

### 11.7.4 Requirements for the Bachelor of Fine Arts Degree

The Bachelor of Fine Arts is a four-year, 120-credit degree. The program is designed with maximum flexibility to allow student growth within various studio art study fields. The common first year of the program is followed in years two to four by various studio art options.

- A student who fails any studio course will not be allowed to take further courses in that studio area until the failed course is completed satisfactorily.
- In either the third or fourth year of the program students are required to travel to a major North American art centre (e.g. Boston, New York, Montreal/Ottawa), in the company of one or more professors, as part of a class field trip for the purpose of study and research at art museums and galleries.

#### Year One:

- 18 Studio credits from FINA 1101, 1111, 1921, 1931, 1941, and 1951.
- 6 credits from FINH 2101, 2111
- 6 credits from outside of Fine Arts and Art History (see Notes below)

#### Year Two:

- 18 Studio credits selected from FINA 2101, 2111, 2201, 2211, 2301, 2311, 2401, 2411, 2501, 2511
- 6 credits from 3/4000 level Art History (FINH) courses or from CLAS 3621, 3631, 3721 or 3731, ENGL 3621, FREN 2801, GERM 2701, HIST 4001, PHIL 2401
- 6 credits from outside of Fine Arts and Art History (see Notes below)

**Year Three:**

- a) 15 Studio credits from FINA 3101, 3111, 3201, 3211, 3301, 3311, 3401, 3411, 3501, 3511, 3601, 3611
- b) FINA 3701 - Third Year Seminar
- c) 6 credits from 3/4000 level Art History (FINH) courses or from CLAS 3621, 3631, 3721, 3731, ENGL 3621, FREN 2801, GERM 2701, HIST 4001, PHIL 2401
- d) 6 credits from outside of Fine Arts and Art History (see Notes below)

**Year Four:**

- a) 12 Studio credits - FINA 4801, 4811, 4821, 4831
- b) 3 additional credits from 2/3000 level studio courses
- c) Fine Arts 4701 - Fourth Year Seminar
- d) 6 credits from 3/4000 level Art History (FINH) courses or from CLAS 3621, 3631, 3721, 3731, ENGL 3621, FREN 2801, GERM 2701, HIST 4001, PHIL 2401
- e) 6 credits from outside of Fine Arts and Art History (see Notes below)

**Note:** 24 credits from Art History courses are required as a component of the Bachelor of Fine Arts degree program and therefore a Minor in Art History is not recorded as a separate additional credential.

**Note:** CLAS 3601, 3611, 3621, 3631, 3721, 3731, ENGL 3621, FREN 2801, GERM 2701, HIST 4001, PHIL 2401 count as Art History courses and cannot be counted toward the 24 credits from electives outside of Fine Arts and Art History.

**Note:** BFA students who complete a Minor from those listed under section 11.2.21 or 11.3.24 (excluding Art History and Fine Arts), or a Specially Approved Minor (see 11.2.20), will have the Minor recorded on the transcript.

**Note:** BFA students may include a maximum of 9 credits from the following courses for a Minor in Museum and Curatorial Studies: FINH 3041, 3301, 3311, FINH 4301, 4311, 4321, 4951, CLAS 3621, 3631, 3721, 3731

**11.7.5 Entrance Scholarship**

The E.B. Pulford Scholarship is normally awarded to the top incoming B.F.A. student, based on portfolio assessments.

**11.8 CERTIFICATE OF BILINGUALISM/  
CERTIFICAT DE BILINGUISME**

Mount Allison students who can demonstrate a high level of competence in both of Canada's official languages may qualify for a Certificate of Bilingualism. The Certificate, which is awarded upon graduation, attests to the student's ability to speak, understand, and write English and French with ease and proficiency. The formal recognition afforded by the Certificate could prove particularly valuable to graduates seeking employment in the many business and government careers where knowledge of both French and English is a requirement or an asset. Any student may apply to be examined for the Certificate, whether or not she or he has taken French or English courses at Mount Allison. The Department of Modern Languages and Literatures administers the Certificate program and any inquiries should be directed to the Department.

Les étudiants de Mount Allison capables de montrer qu'ils possèdent une bonne connaissance des deux langues officielles du Canada peuvent se présenter au concours du Certificat de bilinguisme. Ce certificat décerné lors de la remise des diplômes, fait foi que les étudiants ont

démonstré leur capacité de lire, d'écrire, de parler et de comprendre le français et l'anglais avec facilité et correction. L'attestation officielle que représente le Certificat pourrait s'avérer utile aux diplômés se proposant de poursuivre une carrière dans la fonction publique ou dans les affaires, où la connaissance de l'anglais et du français est exigée ou souhaitable. Tous les étudiants peuvent s'inscrire au concours, qu'ils aient suivi ou non des cours de français ou d'anglais à Mount Allison. Les candidats sont invités à s'adresser au Département de langues et littératures modernes, qui administre le Certificat de bilinguisme.

**11.8.1 Information and Regulations/  
Renseignements**

Candidates may be of any linguistic background. Candidates must make formal application to take the tests no later than the end of the first term of their final year. Candidates will be examined in both French and English in the areas of listening, speaking, reading and writing. The examinations are comprehensive, and may include writing letters and essays or translations; reading literary or other complex texts; and conversation or oral discussion. There is no prescribed sequence of courses in either language leading to the examination for the Certificate. Candidates are invited to profit from the many possibilities offered by the University to improve their language skills.

Le concours est ouvert à tous les étudiants, quelle que soit leur langue maternelle. Les candidats sont priés de s'inscrire au concours au plus tard en décembre de leur année terminale à Mount Allison. Tous les candidats devront passer un examen qui consistera à écouter, parler, lire et écrire en français et en anglais. Il s'agit d'un examen d'ensemble, qui pourra comprendre la rédaction de lettres, d'essais ou de traductions; la lecture de textes littéraires ou techniques; et la participation à une conversation ou à une discussion. La préparation du Certificat n'est sujette à aucune série préétablie de cours. Les candidats sont toutefois encouragés à profiter des nombreuses possibilités dont on dispose à Mount Allison pour l'acquisition des deux langues officielles du Canada.

**11.8.2 Standards/ Niveaux Requis**

Candidates must demonstrate their ability in both languages to:

- a) follow and understand broadcasts, films and lectures,
- b) understand the main ideas of a complex text (book, article, report) without using a dictionary, and also to understand such a text thoroughly in a reasonable amount of time with the use of a dictionary,
- c) write a letter or report that is free of grammatical and stylistic errors,
- d) participate in conversation by expressing complex ideas, developing an argument, and answering questions.

Les candidats doivent démontrer, dans les deux langues, qu'ils sont capables:

- a) de suivre et de comprendre des émissions radiophoniques, des films, des conférences,
- b) de comprendre sans dictionnaire, les idées principales d'un texte complexe (livre, article, compte rendu); et de comprendre à fond le même genre de texte avec l'aide d'un dictionnaire dans une période de temps raisonnable,
- c) d'écrire une lettre ou un compte-rendu sans fautes de grammaire et sans erreurs de style,

- d) de prendre part à une conversation en exprimant des idées complexes, en élaborant et en développant un raisonnement, et en répondant à des questions.

## 11.9 UNDERGRADUATE CERTIFICATES

Mount Allison University may award undergraduate certificates as an embedded certificate taken concurrently with a degree program or as a free-standing credential. Certificates are thematic in nature, comprised of a breadth of available courses related to the theme and open to students across the university with no dependency on program of study. Certificate programs consist of a selection of courses worth 12–18 credits and must be authorized in advance by Senate. Students should plan their certificates well in advance. The listing of a certificate in the academic calendar does not guarantee that the requisite courses are available in any given year.

### 11.9.1 Embedded Certificates

A Senate approved certificate program may be completed as an embedded certificate taken concurrently with a degree program. The embedded certificate must be completed prior to graduation from the degree program, in order to be noted on the transcript.

### 11.9.2 Free-standing Certificates

A Senate approved certificate program may also be completed as a free-standing credential, taken independent of a degree program. Students who hold a Mount Allison degree may also apply for readmission following graduation as a candidate for a certificate, which may include some but not all courses required for the certificate that were completed as part of their undergraduate degree. A transcript and certificate are issued upon completion; however, the recipient does not participate in convocation.

### 11.9.3 Certificate Programs Available

Certificate in Visual Literacy and Culture  
Certificate in Diversity, Equity, and Inclusion

## 11.10 PRE-PROFESSIONAL REQUIREMENTS

A degree from Mount Allison, or a few carefully selected courses or electives as part of a Mount Allison degree, may permit a student admission to a professional program. Some of these programs include medicine, dentistry, pharmacy, veterinary medicine, law, education, theology, social work, audiology and speech, occupational therapy, physiotherapy, optometry, architecture and nutritional programs as well as many others. These professional programs may be accessed upon successful completion of courses and/or a degree from Mount Allison and in combination with other requirements as appropriate (e.g. LSAT, MCAT, GRE, etc.). All students contemplating applying to professional programs should consult the academic calendars of the schools involved carefully and should be aware of any standardized tests required. Interested students should consult the Academic and Career Counsellor for advice on course selection and the process to enter these professional programs after their undergraduate career at Mount Allison.

## 11.11 INTERNATIONAL PROGRAMS

### 11.11.1 Study Abroad and Exchange Programs

Students can add an international dimension to their university degree by participating in one of Mount Allison's many study-abroad and exchange programs. Most programs allow qualified students to complete a period of study at/through a partner institution for which students can be assessed for transfer of credit. To be considered for participation in one of these programs, students must be in Good Standing. In most cases, selection of participants is competitive and preference is given to students who have a GPA of at least 2.5 and who will be in their third year of study while away from Mount Allison. Some programs have further specific criteria (such as language requirements). Students are encouraged to consult with staff in the International Centre for more information about programs, requirements, and application procedures.

Mount Allison currently has partnerships with:

Bilkent University, Turkey  
Bowling Green State University, USA  
City University of Hong Kong, Hong Kong Special Administrative Region (China)  
Eberhard-Karls-Universität (Tübingen), Germany  
Fudan University, China  
Georgia Southern University, USA  
The Hague University of Applied Sciences, The Netherlands  
Killam Fellowship, USA  
Kwansei Gakuin University, Japan  
Mid Sweden University, Sweden  
Norwegian School of Management and Norwegian School of Marketing, Norway  
University of Otago, New Zealand  
Phillips Universität Marburg, Germany  
Senshu University, Japan  
Universidad de Extremadura, Spain  
University of Limerick, Ireland  
University of Newcastle, Australia  
University of Southern Denmark, Denmark  
Université de Strasbourg, Strasbourg, France  
University of Stirling, Scotland  
University of Tasmania, Australia  
Waseda University, Japan

Mount Allison also offers the following short-term study-abroad programs

Cross-Cultural College, Japan (in partnership with Queen's, University of Toronto, and KGU)  
Summer Studies in India Program  
Paris Summer Field School  
Seville Summer Field School  
Archaeological Field Studies at San Felice (Italy)  
Washington Center for Academic Internships, Washington, D.C.

### 11.11.2 MASSIE PROGRAM

The MASSIE Program (Mount Allison Semester Studies in English) offers an on-campus, full-immersion language experience for visiting students from partner universities. It allows students the opportunity to live and study in an English environment for one semester or less and receive academic credit at their home university. Students live in residence, are matched with Mount Allison conversation partners, and



are fully integrated into all aspects of campus life. Students in the MASSIE program follow a specialized English curriculum that creates a rich learning environment so that their knowledge of English, their fluency in using English and their confidence in their ability to function in another language and society are all strengthened. Field trips and activities serve to introduce students to the history, culture and geography of Atlantic Canada. A volunteer component provides participants and community members with opportunities for hands-on learning and cross-cultural connections. Since the program's beginning in 2000, the program has had more than 1000 participants from Japan and has had over 1000 Mount Allison students as volunteers for the program. The MASSIE program has three sessions: summer, fall and winter. The summer and fall MASSIE programs are 15 week, full semester programs. The winter program is an intensive 6-week session that currently receives student from two partner universities: Toyo-Eiwa University and Kwansei Gakuin University.

### 11.11.3 Academic Credit for Independent Experiential Learning

Academic credit may be awarded for certain forms of independent experiential learning subject to the criteria listed below and with the approval of the appropriate committee. Normally, three credits per experience (to a maximum of 6 credits) may be assigned to an independent experiential learning course (EXPL 3/4000/01) as recommended by the course supervisor and approved by the Experiential Learning Committee. A letter grade will be assessed for the credit. A maximum of 6 credits may be included in a student's degree from this mechanism. Normally, students must have third year standing at the time of course approval and may not gain additional academic credit under this regulation where credit has been assigned as part of an existing Mount Allison course. Credit obtained from the independent experiential learning cannot be used to fulfill distribution requirements.

To be eligible for academic credit, the independent experiential learning must satisfy the following criteria:

- a) the experience is provided through an organization or institution which supports open inquiry and intellectual freedom,
- b) two months prior to the experience, the student must consult with an appropriate faculty supervisor and forward a study plan (see below, section c) to the Experiential Learning Committee for approval. The Chair of the Experiential Learning Committee will confirm the decision with the Registrar, including the course to which credit will be assigned,
- c) the study plan submitted to the faculty supervisor and the Experiential Learning Committee must contain:
  - i) a brief description of the intended experiential learning, including beginning and ending dates;
  - ii) an overview of the sponsoring organization and supporting documentation on the particular program, including a letter of acceptance noting the student's involvement, where appropriate;
  - iii) a description of any academic components required before or during the program (such as public seminars, pre-departure sessions, academic or cultural preparation); and
  - iv) a plan for the academic evaluation of the experience that demonstrates its contribution to the student's scholarly development. The study plan must include an analytical assignment which forms the basis for the assigning of academic

credit. All elements of the study plan are to be completed before credit will be assigned,

- d) the requirements of the University's policy on liability for student travel must be met,
- e) following the experience, the student shall request that a letter from the director/co-ordinator of the experience or program be submitted to the faculty supervisor confirming that the student completed the experiential learning program successfully.

#### EXPL 3000 (6.00 CR)

##### INDEPENDENT EXPERIENTIAL LEARNING

**Prereq:** Second year standing and special permission from the university. Please see 11.11.3 for details.

This is a university-wide course that provides credit for academic analysis of independent experiential learning. Normally a student may earn three credits (and up to six credits) may be awarded per experience (to a maximum of six credits in a student's degree program) based on an independent experiential learning program evaluated under regulation 11.11.3.

#### EXPL 3001 (3.00 CR)

##### INDEPENDENT EXPERIENTIAL LEARNING

**Prereq:** Second year standing and special permission from the university. Please see 11.11.3 for details.

This is a university-wide course that provides credit for academic analysis of independent experiential learning. Normally a student may earn three credits (and up to six credits) may be awarded per experience (to a maximum of six credits in a student's degree program) based on an independent experiential learning program evaluated under regulation 11.11.3.

#### EXPL 4000 (6.00 CR)

##### INDEPENDENT EXPERIENTIAL LEARNING

**Prereq:** Second year standing and special permission from the university. Please see 12.11.3 for details.

This is a university-wide course that provides credit for academic analysis of independent experiential learning. Normally a student may earn three credits (and up to six credits) may be awarded per experience (to a maximum of six credits in a student's degree program) based on an independent experiential learning program evaluated under regulation 11.11.3.

#### EXPL 4001 (3.00 CR)

##### INDEPENDENT EXPERIENTIAL LEARNING

**Prereq:** Second year standing and special permission from the university. Please see 11.11.3 for details.

This is a university-wide course that provides credit for academic analysis of independent experiential learning. Normally a student may earn three credits (and up to six credits) may be awarded per experience (to a maximum of six credits in a student's degree program) based on an independent experiential learning program evaluated under regulation 11.11.3.

## 11.12 UNIVERSITY SPECIAL TOPICS COURSES

Most courses at Mount Allison are offered by departments or programs and are designated with the associated course code. But there may be opportunities to offer a course in an interdisciplinary area or in a subject

area that does not fall within any existing department or program. In such cases the course may be offered as a University Special Topic course.

**UNST 1991 (3.00 CR)**  
**UNIVERSITY SPECIAL TOPIC**

This course focuses on a topic not covered by the current course offerings in a department or program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2:When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for UNST 1991/2991/3991/4991 more than once, provided the subject matter differs.] (Format: Variable)

**UNST 1993 (3.00 CR)**  
**UNIVERSITY SPECIAL TOPIC**

This course focuses on a topic not covered by the current course offerings in a department or program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2:When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for UNST 1991/2991/3991/4991 more than once, provided the subject matter differs.] (Format: Variable)

**UNST 2991 (3.00 CR)**  
**UNIVERSITY SPECIAL TOPIC**

This course focuses on a topic not covered by the current course offerings in a department or program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2:When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for UNST 1991/2991/3991/4991 more than once, provided the subject matter differs.] (Format: Variable)

**UNST 3991 (3.00 CR)**  
**UNIVERSITY SPECIAL TOPIC**

This course focuses on a topic not covered by the current course offerings in a department or program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2:When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for UNST 1991/2991/3991/4991 more than once, provided the subject matter differs.] (Format: Variable)

**UNST 4991 (3.00 CR)**  
**UNIVERSITY SPECIAL TOPIC**

This course focuses on a topic not covered by the current course offerings in a department or program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2:When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for UNST 1991/2991/3991/4991 more than once, provided the subject matter differs.] (Format: Variable)



# 12 PROGRAMS AND COURSES OF INSTRUCTION

This section provides alphabetically ordered descriptions of all Minor, Major and Honours programs, including those that are interdisciplinary and those that centre on one discipline, as well as course descriptions for all disciplines. The course listings by disciplines are not an indication in all instances that a separate department exists for that discipline or that all courses are offered each year. Certificate programs are listed as a separate group at the end of this section.

**Note:** The listing of a course in the calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department or Program Co-ordinator must be obtained.

## AMERICAN STUDIES

American Studies is an interdisciplinary program that seeks to help students understand the United States of America through its history, culture, literature, geography, and politics. The American Studies program at Mount Allison is designed primarily for students who are interested in studying American history, literature, and culture, and who are intrigued by broader thematic and disciplinary concerns in the intellectual apprehension of the United States.

### Interdisciplinary B.A. Programs

**MINOR in American Studies is 24 credits earned as follows:**

- 6 from ENGL 2701, 3621, 3711, 3721, 3731, 4701
- 6 from HIST 1601, 2511, 2521, 3511, 3531, 3801, 4510, 4571
- 12 from CANA 2421, GENV 2201, 2311, 3211, 3301, 3811 INLR 2301, POLS 3211, 3331, RELG 2841, SOCI 3431, 3451, or additional ENGL and HIST courses listed in the previous two lines  
or from the following courses in any year when the Program Co-ordinator approves that their content contains a significant American Studies component: ENGL 3921, 3931, 4941

**Note:** At least 6 credits must be from courses at the 3/4000 level

**Note:** Other courses may be approved for the minor by the Program Co-ordinator

**MAJOR in American Studies is 60 credits earned as follows:**

- 3 from ENGL 1201
- 9 from ENGL 2701\*, 3711\*, 3721\*
- 3 from GENV 3301\*
- 12 from HIST 1601, 2511, 2521

- 33 from ECON 1001, 1011, 3501\*, ENGL 3731\*, 3741\*, 3921\*^, 3931\*^, 4701\*, 4951\*^, FINA 3061\*, GENV 2201, HIST 3511\*, 3531\*, 4510\*, 4571\*, 4951\*^, INLR 2301\*, 3101\*, 4301\*, POLS 3211\*, 3331\*, RELG 2841, SOCI 3431\*, 3451\*

**HONOURS in American Studies is 78 credits earned as follows:**

- 60 credits as in the Major, plus:
- 6 from either HIST 4990 or ENGL 4990
- 12 additional credits from ECON 3501\*, 3711\*, ENGL 3731\*, 3741\*, 3921\*^, 3931\*^, 4701\*, 4951\*^, HIST 3511\*, 3531\*, 4510\*, 4571\*, 4951\*^, INLR 3101\*, 4301\*, POLS 3211\*, 3331\*, SOCI 3431\*, 3451\*, or other 3/4000 level courses chosen in consultation with the Program Co-ordinator.

**Note:** \* indicates course requires pre-requisites

**Note:** ^ indicates that the course may be approved for inclusion in the program when a significant American Studies component can be demonstrated and is approved with permission of the instructor and the Program Co-ordinator.

## ANTHROPOLOGY

Anthropology is the study of humans across space and time. It is essentially cross cultural, and attempts to understand the way of life of other peoples across the world; how they have attempted to solve pan human problems including food, shelter, and repopulation; and what worlds of meaning and explanation they have created. It is a comparative discipline seeking similarities and differences between societies and environments. Its study leads to a heightened awareness of the importance of culture and a sensitivity to cultural differences.

**Note:** The Anthropology program is being phased out. No new students are being admitted to the program.

### ANTHROPOLOGY COURSES

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following course can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees:  
ANTH 1011

#### ANTH 1011 (3.00 CR) INTRODUCTION TO ANTHROPOLOGY

The course introduces the major fields of anthropology (physical, archaeological, linguistic and cultural) and the major domains of cultural and social anthropology (types of society, social change, and political, economic, kinship and religious institutions). (Format: Lecture 3 Hours) Distribution: Social World)

#### ANTH 1991 (3.00 CR) SPECIAL TOPIC IN ANTHROPOLOGY

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for ANTH 1991 more than once, provided the subject matter differs.] (Format: Variable)

#### ANTH 2231 (3.00 CR) CULTURE AND COMMUNICATION

**Prereq:** ANTH 1011; 3 credits in Social Sciences; or permission of the Department

This course presents an anthropological analysis of verbal and non-verbal systems of communication as well as the influence of language on human cognition. The aim is to develop an understanding of the role of bodily movements, facial expressions, and the use of personal space and symbolic gestures in the communicative process. (Format: Lecture 3 Hours) (Exclusion: ANTH 3231)

#### ANTH 2401 (3.00 CR) ANTHROPOLOGY AND THE LIFE COURSE

**Prereq:** ANTH 1011; 3 credits in Social Sciences; or permission of the Department

This course examines the human life course in comparative perspective. It expands on many of the anthropological concepts introduced at the 1000 level, but centres on exploring the relationship between individuals and their ecological and sociocultural environments throughout the life cycle. It covers such topics as birth, infancy, childhood, adolescence, family relations, and work in different cultures. (Format: Lecture 3 Hours)

#### ANTH 2501 (3.00 CR) ENVIRONMENT AND SOCIETY

**Prereq:** ANTH 1011; 3 credits in Social Sciences; or permission of the Department

A study of the various types of society, both past and present, that have emerged or been transformed through their interaction with their environments. The course will explore features associated with the major forms of society from foraging, through horticultural and agrarian, to industrial and post-industrial societal types. It will explore such themes as demography, resource exploitation, ecological adaptation, energy access, and environmental impact, in the context of social organization and societal formation. (Format: Lecture 3 Hours)

#### ANTH 2521 (3.00 CR) ANTHROPOLOGICAL PERSPECTIVES ON DEVELOPMENT

**Prereq:** ANTH 1011; 3 credits in Social Sciences; or permission of the Department

An examination of development issues at the global and local levels, with emphasis on gender and indigenous peoples. The focus will fall on such questions as "What is development?" and "Who benefits?" The course reviews the contribution of applied anthropology, participatory action research, and popular education to development models, theory, and praxis. (Format: Lecture 3 Hours)

#### ANTH 2701 (3.00 CR) HUMAN VARIATION

**Prereq:** ANTH 1011; 3 credits in Social Sciences; or permission of the Department

This course explores biological and cultural diversity in terms of evolutionary origin and adaptive significance. It focuses on why differences exist and how humans adapt to varying environments. (Format: Lecture 3 Hours) (Exclusion: ANTH 2991 Human Variation; ANTH 3991 Human Variation)

#### ANTH 2991 (3.00 CR) SPECIAL TOPIC IN ANTHROPOLOGY

**Prereq:** ANTH 1011; 3 credits in Social Sciences; or permission of the Department

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for ANTH 2991 more than once, provided the subject matter differs.] (Format: Variable)

**ANTH 3021 (3.00 CR)**  
**CLASSICAL THEORY IN ANTHROPOLOGY**

**Prereq:** ANTH 1011; 6 credits from ANTH at the 2000 level ; or permission of the Department

A review of the historical emergence of and major approaches taken to cultural and social anthropology. It will introduce the students to the major components of evolutionism, neo-evolutionism, particularism, functionalism, culture and personality, cultural materialism, and ecological anthropology. (Format: Lecture 3 Hours) (Exclusion: Any version of ANTH 3021 previously offered with a different title)

**ANTH 3031 (3.00 CR)**  
**INDIGENOUS KNOWLEDGE SYSTEMS: THEORETICAL AND METHODOLOGICAL ISSUES**

**Prereq:** ANTH 1011; 6 credits from ANTH at the 2000 level; or permission of the Department

This course explores the epistemology of systems of knowledge of Indigenous Peoples throughout the world. We ask questions such as "How is knowledge constructed?" "What is embodied in the terms "science" and "ethnoscience?" "Does Indigenous Knowledge differ from Scientific Knowledge and are there possibilities for integration in education, development and research?" (Format: Lecture 3 Hours)

**ANTH 3101 (3.00 CR)**  
**SOCIAL INEQUALITY**

**Prereq:** ANTH 1011; 6 credits from ANTH at the 2000 level ; or permission of the Department

A critical and comparative analysis of social inequality, one of the original and central issues in social thought. The course will consider the major theoretical interpretations of the various forms of structured social inequality. (Format: Lecture 3 Hours)

**ANTH 3311 (3.00 CR)**  
**ANTHROPOLOGICAL RESEARCH METHODS**

**Prereq:** ANTH 1011; 6 credits from ANTH at the 2000 level; or permission of the Department

This course introduces students to the central elements in anthropological field research methods, past and present. Topics covered include: research goals and project design; participant-observation and related techniques for acquiring original data; practical and ethical considerations regarding the field experience. (Format: Lecture/Case Studies 3 Hours)

**ANTH 3321 (3.00 CR)**  
**FIELD COURSE IN ANTHROPOLOGY**

This course is designed to provide students with an intensive field experience, during which they pursue research on a topic to be chosen by the Instructor. As such, the course is not designed to be offered during the Fall and Winter terms, but may be available to students during the Spring/Summer term. Completion of ANTH 3311 (Anthropological Research Methods) is recommended before registering for this course. [Note 1: Permission of the Department is required.] (Format: Lecture 3 Hours)

**ANTH 3401 (3.00 CR)**  
**BELIEF SYSTEMS**

**Prereq:** ANTH 1011; 6 credits from ANTH at the 2000 level; or permission of the Department

This course explores the relationship between ideas, beliefs and social/cultural context. It covers a wide range of phenomena, among which are magic, witchcraft, shamanism, initiation and other types of rituals, and religious movements. (Format: Lecture/Case Studies 3 Hours)

**ANTH 3421 (3.00 CR)**  
**FOLKLORE**

**Prereq:** ANTH 1011; 6 credits from ANTH at the 2000 level; or permission of the Department

A survey of the various types of folklore - tale, song, rhyme, riddle, proverb, belief, and custom with particular attention to their form and function in relation to their contextual setting. Collection and analysis of examples by students will be combined with the use of materials from the Mary Mellish Archibald Memorial collection in the Library. (Format: Lecture 3 Hours)

**ANTH 3531 (3.00 CR)**  
**FAMILY AND KINSHIP**

**Prereq:** ANTH 1011; 6 credits from ANTH at the 2000 level; or permission of the Department

A study of a central principle of social organization and a major institution in society. The course will investigate the forms and functions of kinship and the role of and changes in the family in relation to pre-industrial, industrial and post-industrial societies. (Format: Lecture 3 Hours)

**ANTH 3541 (3.00 CR)**  
**ETHNOBOTANY**

**Prereq:** ANTH 1011; 6 credits from ANTH at the 2000 level; or permission of the Department

Ethnobotany is the systematic study of how people of a particular region use and relate to plants. The scope of the course is global with special emphasis on the ecosystems of the Atlantic Region. Each year focuses on a different ecosystem. This is a field course, incorporating field trips and site visits as a class and for independent study, and providing basic skills for carrying out ethnobotanical fieldwork - plant identification and description, taxonomies, applications of specific plants for food, technology and medicine in different cultural traditions, ethnobotanical research methods and ethical issues. (Format: Lecture 3 Hours)

**ANTH 3621 (3.00 CR)**  
**HEALTH AND CULTURE**

**Prereq:** ANTH 1011; 6 credits from ANTH at the 2000 level; or permission of the Department

A review of the relations between human health and culture, biology and environment, with reference to the social dimensions of health, sickness, disease, and treatment. Through cross cultural and historic comparisons, connections between mainstream and alternate medicine are explored, and the role of anthropology in clinical settings and international health is discussed. (Format: Lecture 3 Hours)

**ANTH 3701 (3.00 CR)**  
**FORENSIC ANTHROPOLOGY**

**Prereq:** ANTH 1011; 6 credits from ANTH at the 2000 level; or permission of the Department

This course focuses on the application of osteology to the medical-legal investigation of death, including description and identification of the victim, determination of cause and manner of death, and estimation of time of death. It also examines the methods of archaeological recovery of physical evidence. (Format: Lecture 3 Hours) (Exclusion: ANTH 3991 Forensic Anthropology)

**ANTH 3801 (3.00 CR)**  
**ABORIGINAL PEOPLES AND CULTURES OF CANADA**

**Prereq:** ANTH 1011; 6 credits from ANTH at the 2000 level; or permission of the Department

This course is a survey of the dynamics of Aboriginal life in Canada linking its rich and varied past with the challenges of the present. It follows the development of Aboriginal societies in Canada drawing on archaeological, linguistic and ethnographic data to reveal a complex picture of regional cultural diversity. Attention is given to contemporary issues of rights, economic development, and governance. (Format: Lecture 3 Hours) (Exclusion: ANTH 2801)

**ANTH 3821 (3.00 CR)**  
**MARITIME ABORIGINAL CULTURES IN ETHNOGRAPHIC PERSPECTIVE**

**Prereq:** ANTH 1011; 6 credits from ANTH at the 2000 level; or permission of the Department

This course focuses on the aboriginal cultures of Atlantic Canada, offering an overview of the region and critical appraisal of ethnographic materials relating to its various peoples. Topics covered include: oral tradition, language and identity, healing and traditional medicine, spirituality, relations with Euro-Canadians, political movements, and issues of resource management. (Format: Lecture/Case Studies 3 Hours)

**ANTH 3831 (3.00 CR)**  
**AREAL ETHNOGRAPHY**

**Prereq:** ANTH 1011; 6 credits from ANTH at the 2000 level; or permission of the Department

An ethnographic study of an area other than those covered in other 3800 courses. [Note 1: Students may register for ANTH 3831 more than once, provided the subject matter differs.] (Format: Lecture 3 Hours)

**ANTH 3841 (3.00 CR)**  
**SOUTHEAST ASIAN ETHNOGRAPHY**

**Prereq:** ANTH 1011; 6 credits from ANTH at the 2000 level; or permission of the Department

A course addressing social, cultural, and political issues in Southeast Asia from historical and contemporary perspectives, and considering social change and culture persistence in the region and in particular countries. Current topics such as refugees, biodiversity, gender, trade and development, nationalism, the legitimization of power, and relations between ethnic minorities and the state will be examined. (Format: Lecture 3 Hours)

**ANTH 3851 (3.00 CR)**  
**ARCTIC ETHNOGRAPHY**

**Prereq:** ANTH 1011; 6 credits from ANTH at the 2000 level; or permission of the Department

A survey course exploring the diversity of the circumpolar regions, Siberia, Alaska, Greenland, Scandinavia and the Canadian North. How indigenous cultures have flourished in the harshest environment on earth will be examined. In addition, current issues facing indigenous peoples today such as, land claims, self-government, intellectual property rights, and transnational linkages, will be discussed. (Format: Lecture 3 Hours)

**ANTH 3861 (3.00 CR)**  
**AFRICAN ETHNOGRAPHY**

**Prereq:** ANTH 1011; 6 credits from ANTH at the 2000 level; or permission of the Department

A course in which ethnographic studies of African peoples will be considered from a critical perspective. through course-readings and lectures and in extended class discussions covering a range of topics including art, ritual, gender, history, economy and world view. Students will be called upon to question the ways in which Africa and African people have been represented in anthropological, colonial and popular discourses. Current issues that dominate academic and popular writing on the continent and its inhabitants will be approached from this same critical stance. (Format: Lecture 3 Hours)

**ANTH 3871 (3.00 CR)**  
**NORTH AFRICAN AND MIDDLE EASTERN ETHNOGRAPHY**

**Prereq:** ANTH 1011; 6 credits from ANTH at the 2000 level; or permission of the Department

This course explores the themes of similarity and difference among Muslim, Jewish, and Christian populations of North Africa and the Middle East in historical and contemporary perspective. Topics include the relationship between state and society through such institutions as family, gender, ritual, law, and foodways. (Format: Lecture 3 Hours) (Exclusion: ANTH 3831 - Areal Ethnography Mideast/Middle East and North Africa)

**ANTH 3991 (3.00 CR)**  
**SPECIAL TOPIC IN ANTHROPOLOGY**

**Prereq:** ANTH 1011; 6 credits from ANTH at the 2000 level; or permission of the Department

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for ANTH 3991 more than once, provided the subject matter differs.] (Format: Variable)

**ANTH 4021 (3.00 CR)**  
**CONTEMPORARY THEORY IN ANTHROPOLOGY**

**Prereq:** ANTH 3311; 3 credits from ANTH 3021, 3031; 3 credits from ANTH at the 3000 level; or permission of the Department

This seminar course is an advanced consideration of theory in anthropology since 1980. It explores the emergence and impact of major national styles of anthropological thought as well as the contribution of key individuals. (Format: Seminar 3 Hours)(Exclusion: Any version of ANTH 4021 previously offered with a different title)

**ANTH 4311 (3.00 CR)**  
**CRITICAL ETHNOGRAPHY**

**Prereq:** ANTH 3311; 3 credits from ANTH 3021, 3031; 3 credits from ANTH 3800 series; or permission of the Department

An advanced seminar exploring the relationship between anthropological field research - fieldwork - and anthropological writing - ethnographies. This course deals with issues of form, content and purpose in contemporary ethnographies. The status of ethnographic 'facts' and 'truth' is a central concern. (Format: Seminar 3 Hours)

**ANTH 4421 (3.00 CR)**  
**THE ANTHROPOLOGY OF PERFORMANCE**

**Prereq:** ANTH 3311; 3 credits from ANTH 3021, 3031; 3 credits from ANTH 3401, 3421; or permission of the Department

This course investigates the ongoing construction and interactional nature of culture. This seminar addresses contemporary discussions surrounding performance as an analytical tool in the context of ritual, representation, identity, mimicry and mimesis, everyday life, and art, through a variety of theoretical perspectives. (Format: Seminar 3 Hours)(Exclusion: ANTH 4401)

**ANTH 4531 (3.00 CR)**  
**CULTURAL ECOLOGY**

**Prereq:** ANTH 3541; or permission of the Department

This course explores the relationship amongst human groups and their social, symbolic and physical surroundings. It discusses cultural systems as the means by which humans adapt to, interact with, and invest meaning into, their environments. Students will become familiar with current theoretical, methodological and applied issues in cultural ecology with special emphasis on traditional plant knowledge. (Format: Seminar 3 Hours)

**ANTH 4621 (3.00 CR)**  
**THE BODY IN CULTURE**

**Prereq:** ANTH 3311; 3 credits from ANTH 3021, 3031; 3 credits from ANTH 3800 series; or permission of the Department

A seminar course exploring contemporary ethnographies that focus on the body as a site and instrument of culture. Topics addressed may include the senses, violence, adornment, foodways, and movement. (Format: Seminar 3 Hours)

**ANTH 4721 (3.00 CR)**  
**GLOBALIZATION AND SOCIAL CHANGE**

**Prereq:** ANTh 3311; 3 credits from ANTH 3021, 3031; 3 credits from ANTH 3800 series; or permission of the Department

This course uses ethnographic materials to explore the meanings and central processes of globalization as a force in reshaping social and cultural life everywhere. Particular concerns include the relationship between globalization, inequality and poverty, the fate of cultural diversity in a globalizing world, and issues of gender, ethnicity, the environment, social justice, and human rights. (Format: Seminar 3 Hours)

**ANTH 4901 (3.00 CR)**  
**ISSUES IN ANTHROPOLOGY**

**Prereq:** 3 credits from ANTH 3021, 3031; 3 credits from ANTH at the 3000 level; or permission of the Department

A study of specific issues in Anthropology. (Format: Seminar 3 Hours)

**ANTH 4950 (6.00 CR)**  
**INDEPENDENT STUDY IN ANTHROPOLOGY**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor is required. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for ANTH 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**ANTH 4951 (3.00 CR)**  
**INDEPENDENT STUDY IN ANTHROPOLOGY**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor is required. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for ANTH 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**ANTH 4990 (6.00 CR)**  
**HONOURS THESIS**

[Note 1: Prereq: Permission of the Department is required] (Format: Independent Study/Thesis)



**ANTH 4991 (3.00 CR)  
SPECIAL TOPIC IN ANTHROPOLOGY**

**Prereq:** 6 credits from ANTH at the 3000 level; or permission of the Department

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for ANTH 4991 more than once, provided the subject matter differs.] (Format: Variable)

## ART HISTORY

The Department of Fine Arts offers a B.A. with a Major or Minor in Art History. The study of Art History is integral to the study of art and visual culture. With its increasingly interdisciplinary approach, Art History encompasses a broad range of visual, cultural and social studies. An art history background provides valuable insight into history, philosophy and the humanities in general. Course offerings range from an introduction to World Art to more focused examinations of the Nineteenth and Twentieth Centuries, including Canadian Art, Contemporary Art, and Women and Gender in Art. Advanced seminars are also offered on subjects ranging from critical issues in Archival research, Museum and Curatorial Studies, and Art Criticism. Students majoring in Art History are also encouraged to do an Independent Study paper on a specific area of interest. Courses are also offered for credit as Art History courses in Classics, Philosophy, English, History, and Modern Languages and Literatures. The Owens Art Gallery is an invaluable resource for the study of Art History and for the Fine Arts Department. Further resources include Fine Arts field trips and a Visiting Artists' Program.

**Museum and Curatorial Studies .** The Department of Fine Arts offers a B.A. Minor in Museum and Curatorial Studies. The Museum and Curatorial Studies Minor offers an interdisciplinary approach to Art History, Commerce, Canadian Studies, and Classics with the resources and professional staff of the Owens Art Gallery, Colville House, the Mount Allison Libraries and Archives, and the Visiting Artists and Curators program. Course offerings include: arts and culture management; museum education and community engagement; curating and critical writing; the close study of collections and issues around collecting, including the repatriation of Indigenous objects; the archives; and the critical study of art museums and galleries. Students pursuing a Minor in Museum and Curatorial Studies can undertake an experiential learning component in their senior year.

A background in Museum and Curatorial Studies provides a wider understanding of the cultural production of museums and their communities and can lead to professions in curating, museum education, conservation, collections, marketing, or administration in the arts.

### Disciplinary B.A. Programs

#### MINOR in Art History is 24 credits earned as follows:

- 6 from FINH 2101, 2111
- 18 from Art History at the 3/4000 level or from CLAS 3621, 3631, 3701, or 3711, ENGL 3621, FREN 2801, GERM 2701, HIST 4001, PHIL 2401

#### MAJOR in Art History is 60 credits earned as follows:

- 6 from FINH 2101, 2111
- 36 from Art History at the 3/4000 level or from CLAS 3621, 3631, 3701, or 3711, ENGL 3621, FREN 2801, GERM 2701, HIST 4001, PHIL 2401
- 18 from complementary courses in Arts and Letters and Humanities, chosen in consultation with the Program Advisor

## Interdisciplinary B.A. Programs

### Minor in Museum and Curatorial Studies is 24 credits earned as follows:

- 6 from FINH 2101, 2111
- 6 from FINH 3041, 3301, 3311
- 3 from FINH 4301, 4311, 4321, 4951
- 9 from FINH 3031\* OR FINH 3071\*; FINH 3041\*, 3301\*, 3311\*, 4301\*, 4311\*, 4321\*, 4951\* (if not used above); CANA 1011, 3831; CLAS 2501, 2521, 3501, 3511, 3621\*, 3631\*, 3721\*, 3731\*, COMM 3271, 4301, HIST 3861

#### Note:

Students in the BFA, BA Major or Minor in Art History programs completing this Minor must take all 9 credits from non-FINH courses. Excluded courses are indicated with an asterisk.

#### Note:

The listing of a course in the Calendar is not a guarantee that the course is offered every year.

#### Note:

Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

#### Note:

The following course can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees:

FINH 2101

## ART HISTORY COURSES

### FINH 1991 (3.00 CR) SPECIAL TOPIC IN ART HISTORY

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for FINH 1991 more than once, provided the subject matter differs.] (Format: Variable)

### FINH 2101 (3.00 CR) INTRODUCTION TO ART HISTORY

This course provides a chronological introduction to the history of Western art from the early Renaissance to the present day. It explores critically the major movements that shaped art throughout these periods. (Format: Lecture 3 Hours) (Distribution: Arts-a) (Exclusion: FINA 2011; FINH 2011)

### FINH 2111 (3.00 CR) CONTEXTS OF ART AND MUSEUM CULTURE

This course focuses on the cultural, historical, and critical contexts of art. It thematically explores aspects of visual art, material culture, art markets, museum studies, repatriation, and issues around decolonization, all within a broader study of art history and visual culture. (Format: Lecture 3 Hours) (Exclusion: Any version of FINH 2111 previously offered with a different title)

### FINH 2991 (3.00 CR) SPECIAL TOPIC IN ART HISTORY

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for FINH 2991 more than once, provided the subject matter differs.] (Format: Variable)

### FINH 3021 (3.00 CR) CANADIAN ART FROM ITS BEGINNINGS TO THE 1960S

**Prereq:** FINH 2101; FINH 2111; or permission of the Department  
This course surveys the history of art in Canada from its beginnings to the 1960s within its historical, social, political, and cultural contexts and considers the ways in which art history and its narratives function. Topics include: the art of Canada's Indigenous peoples; topographical and portrait traditions in the Colonial period; landscape painting and the idea of Nationhood; mysticism and nature in Canadian painting; art and democracy; formal experimentation and the urban space in the art of the Inter-War Years; the development of Canadian sculpture; modernism in Canadian painting; Quebec art, politics, and the Church; and the development of abstraction. (Format: Lecture 3 Hours)

### FINH 3031 (3.00 CR) CANADIAN ART FROM THE 1960S TO THE PRESENT

**Prereq:** FINH 2101; FINH 2111; or permission of the Department  
This course considers visual art in Canada from the mid-1960s to the present. It looks at a range of media, including painting, sculpture, photography, video, audio, performance, installation, and Internet art. It investigates current issues in contemporary art practice including cultural identity, the politics of representation, gender and the body, audience, and censorship. (Format: Lecture 3 Hours)

### FINH 3041 (3.00 CR) MUSEUM STUDIES

**Prereq:** 6 credits from Art History courses; or permission of the Department  
This course examines the art museum within contemporary society. It considers the history and future shape of the museum, and examines current practice, issues, and debate. It includes topics such as: the politics of the museum; its history and discourse; curatorial practice and the development of exhibitions; the museum and its publics; museums and new media; collections; and issues of artistic freedom and censorship. (Format: Seminar 3 Hours)

**FINH 3051 (3.00 CR)****TWENTIETH CENTURY ART TO 1940****Prereq:** FINH 2101; FINH 2111; or permission of the Department

This course examines art and architecture in Europe and North America from 1900 to 1940. It covers schools and movements including the Secession, Expressionism, The Fauves, Cubism, Futurism, Constructivism, Abstraction, Dada, Surrealism, and Social Realism, as well as artists working independently of any formal group. It also addresses issues such as gender, psychoanalysis, 'primitivism,' and the politics of colonialism and international warfare. (Format: Lecture 3 Hours)

**FINH 3061 (3.00 CR)****MODERN ART FROM 1940 TO 1970****Prereq:** FINH 2101; FINH 2111; or permission of the Department

This course examines art in Europe and the United States from 1940 to 1970. It considers schools and movements including Abstract Expressionism, CoBrA, Pop Art, Junk Art, Minimalism, Kinetic Art, Op Art, Land Art, Process Art, Conceptual Art, Arte Povera and Performance Art, as well as artists working independently of any formal group. It also addresses issues such as notions of modernism and the avant-garde, gender, international warfare, post-World War II consumerism, internationalism, and the role of art critics in shaping a 'canon' for twentieth-century art. (Format: Lecture 3 Hours)

**FINH 3071 (3.00 CR)****CONTEMPORARY ART SINCE 1970****Prereq:** FINH 2101; FINH 2111; or permission of the Department

This course examines contemporary art since 1970 and focuses on themes including the body and identity. Topics include naturally, and culturally, constructed bodies, gender identity, sexual identities, ethnic bodies, abject bodies, and political and religious identities. It includes art in a variety of media including the bodies of humans and animals, painting, sculpture, assemblage, installation, photography, printmaking, architecture, textiles, film, video, and performance art. (Format: Lecture 3 Hours)

**FINH 3081 (3.00 CR)****WOMEN AND GENDER IN ART****Prereq:** FINH 2101; FINH 2111; or permission of the Department

This course offers a history of women in art and society, from the Medieval period through to contemporary culture. Drawing on social history, feminism and its implications, and the representation of women and gender in the visual arts, this course provides a better understanding of the situation of artists within different social, regional, and global contexts. (Format: Lecture 3 Hours) (Exclusion: any version of FINH 3081 previously offered with a different title)

**FINH 3141 (3.00 CR)****NINETEENTH CENTURY ART, PART ONE****Prereq:** FINH 2101; FINH 2111; or permission of the Department

This course examines art and architecture during the first half of the nineteenth century in the United States and Western Europe (particularly Belgium, England, France, Germany and Spain). It includes art in a variety of media and pays particular attention to the inventions of lithography and photography during this time. It considers artistic movements such as Neo-Classicism, Romanticism and Realism along with artists who worked independently from these movements. (Format: Lecture 3 Hours)

**FINH 3241 (3.00 CR)****NINETEENTH CENTURY ART, PART TWO****Prereq:** FINH 2101; FINH 2111; or permission of the Department

This course examines art and architecture during the second half of the nineteenth century in the United States and Western Europe (particularly Belgium, England, France, Germany and Spain). It includes art in a variety of media and pays particular attention to innovations in the production of photography and etching. It considers artistic movements such as Realism, Impressionism, Post-Impression and Art Nouveau. (Format: Lecture 3 Hours)

**FINH 3301 (3.00 CR)****MUSEUMS, EDUCATION, AND ENGAGEMENT 1960S****Prereq:** 6 credits from FINH 2101; FINH 2111; or permission of the Department

This course examines the expanding field of museum education and considers the broader educational role of the museum. Topics include: current practice in museum education; informal learning theories; visitor experience; visitor research; writing in the museum; accessibility; inclusion; relevance; and the ways in which museums use new media, social media, and mobile technology. (Format: Seminar 3 Hours)

**FINH 3311 (3.00 CR)****COLLECTIONS, COLLECTING, AND COMMUNITY 1960S****Prereq:** 6 credits from FINH 2101, FINH 2111; or permission of the Department

This course critically examines the material culture of galleries, archives, and collections. Its close study of collections, collecting, and their communities broadens the dialogue around the politics of repatriation, stewardship, spoliation and restitution, and ownership and community. (Format: Seminar 3 Hours)

**FINH 3991 (3.00 CR)****SPECIAL TOPIC IN ART HISTORY****Prereq:** FINH 2101; FINH 2111; or permission of the Department

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for FINH 3991 more than once, provided the subject matter differs.] (Format: Variable)

**FINH 4091 (3.00 CR)****ADVANCED SEMINAR IN ART HISTORY****Prereq:** FINH 2101; FINH 2111; or permission of the Department

This course explores key issues in nineteenth to twenty-first century art, with topics to vary from term to term. It emphasizes contemporary, theoretical, methodological and critical approaches to the art of the recent past. [Note: Students may register for FINH 4091 more than once, provided the subject matter differs.] (Format: Seminar 3 Hours)

**FINH 4301 (3.00 CR)****CURATING ART AND CRITICAL WRITING**

**Prereq:** 6 credits from FINH 2101, FINH 2111; 3 credits FINH at the 3000 level; or permission of the Department.

This course develops a critical and creative approach to contemporary curating, museology, and writing on art. Topics include: a close examination of museums, galleries, and artist-run centres; the material cultures of display; collections; art writing. Students gain experience through curating art within a group dynamic. (Format: Seminar 3 Hours) (Exclusions: FINH 4091 Advanced Seminar: Curating Art and Critical Writing; FINH 4091 Advanced Seminar: Curating Art)

**FINH 4311 (3.00 CR)****ART AND ARCHIVES**

**Prereq:** 6 credits from FINH 2101, FINH 2111; 3 credits FINH at the 3000 level; or permission of the Department.

This course engages the archives as a real and conceptual space for memory to be activated through critical, historical, and creative methodologies. It opens a dialogue around what constitutes an archive or cultural collection and develops critical skills to navigate archival collections for primary research and documentation that can be applied to any course that examines historical or material culture. Students curate an exhibition drawn from an archival collection such as the Mount Allison Archival Collection. (Format: Seminar/Experiential 3 Hours) (Exclusions: FINH 4091 Advanced Seminar: Art and The Archives; FINH 4091 Advanced Seminar: Art & Archives)

**FINH 4321 (3.00 CR)****MUSEUM PRACTICUM**

**Prereq:** Fourth-year standing and registered in the Minor in Museum and Curatorial Studies; and Permission of the Department

This course provides students with an applied understanding of museum and curatorial practices. Students have an opportunity to engage in a directed study with a community museum, art gallery, arts centre, cultural or heritage centre, or archive, to develop a deeper knowledge of how these institutions, and their related professions, operate and function. (Format: Independent Study/Experiential)

**FINH 4950 (6.00 CR)****INDEPENDENT STUDY IN ART HISTORY**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for FINH 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**FINH 4951 (3.00 CR)****INDEPENDENT STUDY IN ART HISTORY**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for FINH 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**FINH 4991 (3.00 CR)****SPECIAL TOPIC IN ART HISTORY**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for FINH 4991 more than once, provided the subject matter differs.] (Format: Variable)

## OTHER ART HISTORY COURSES

The following courses also count as Art History offerings:

**CLAS 3621 (3.00 CR)**  
**THE ARCHAEOLOGY OF GREEK COLONIZATION OF SOUTHERN ITALY**

**Format:** Lecture 3 Hours

**CLAS 3631 (3.00 CR)**  
**GREEK ART AND ARCHAEOLOGY**

**Format:** Lecture 3 Hours

**CLAS 3701 (3.00 CR)**  
**ETRUSCAN AND EARLY ROMAN ART AND ARCHAEOLOGY**

**Format:** Lecture 3 Hours

**CLAS 3711 (3.00 CR)**  
**THE ART OF IMPERIAL ROME AND ITS EMPIRE**

**Format:** Lecture 3 Hours

**ENGL 3621 (3.00 CR)**  
**READING FILMS**

**Format:** Lecture 3 Hours, Laboratory 2 Hours

**FREN 2801 (3.00 CR)**  
**LE CINÉMA DU MONDE FRANCOPHONE**

**Format:** Lecture 3 Hours

**GERM 2701 (3.00 CR)**  
**THE NEW GERMAN FILM: HISTORY, THEORY AND PRACTICE**

**Format:** Lecture 3 Hours, Film Screening 2.5 Hours

**HIST 4001 (3.00 CR)**  
**HISTORY THROUGH FILM**

**Format:** Seminar 3 Hours

**PHIL 2401 (3.00 CR)**  
**INTRODUCTORY AESTHETICS**

**Format:** Lecture 3 Hours

## AVIATION

This interdisciplinary major covers basic geography and environmental science, mathematics and computer science, and physics, and upper level courses from these disciplines plus credit for aviation courses studied at Moncton Flight College.

### Entrance Requirements

- a) Each prospective student for the Major in Aviation must meet the general admissions requirements of Mount Allison (section 3) and should declare at time of application.
- b) Each prospective student for the Major in Aviation must obtain a Transport Canada Category 1 medical certificate before commencing flight training.

**Note:** The practical elements of the program may require training time outside the traditional September-April teaching period. Students should consult with the Program Advisor about the time commitment needed.

### Interdisciplinary B.Sc. Program

#### MAJOR in Aviation is 78 credits earned as follows:

- 6 from MATH 1111, COMP 1631
- 6 from PHYS 1051, 1551
- 6 from GENS 1401, 2421
- 6 from Computer Science, GENS, Mathematics or Physics at the 2000 level chosen in consultation with the Program Advisor\*
- 18 from Computer Science, GENS, Mathematics or Physics at the 3000/4000 level chosen in consultation with the Program Advisor\*
- 36 credits twelve of which are designated at the 3000/4000 level as follows:
  - a) from Moncton Flight College through completing the requirements for flight training outlined in the Handbook for the Mount Allison Bachelor of Science (Aviation) including the Commercial Pilot Licence with Multi-engine and Instrument Flight Rules ratings, or
  - b) from Moncton Flight College by transfer after completion of the Diploma in Aviation Technology (Pilot), or
  - c) from Confederation College by transfer after completion of the Aviation Flight Management Diploma

\*Consultation must occur before the student's second year of study.

## BIOCHEMISTRY

Biochemistry is the study of the chemical structures and processes of living organisms.

### Interdisciplinary B.Sc. Programs

**MINOR in Biochemistry is 24 credits earned as follows:**

- 6 from BIOC 1001, 2001
- 3 from BIOL 1501
- 6 from CHEM 1001, 1021
- 3 from CHEM 2111, 2411
- 6 from Biochemistry at the 3/4000 level

**MAJOR in Biochemistry is 75 credits earned as follows:**

- 21 from BIOC 1001, 2001, 3001, 3031, 3041, 3521, 4031
- 3 from Biochemistry at the 3/4000 level
- 3 from BIOL 1501
- 9 from BIOL 2101, 2201, 2301, 2401, 2701, 2811, 3111, 3211, 3631, 3711, 4151, 4211, GENS 1401
- 12 from CHEM 1001, 1021, 2111, 2411
- 9 from CHEM 2121, 2211, 2311, 3131
- 6 from MATH 1111, 1121
- 3 from PHYS 1041 or 1051
- 3 from PHYS 1551
- 6 from Biochemistry or Biology or Chemistry or GENS at the 3/4000 level, of which three credits must be from BIOC or CHEM

**HONOURS in Biochemistry is 84 credits earned as follows:**

- 75 credits as in the Major
- 9 from BIOC 4990 and BIOC 4903

### BIOCHEMISTRY COURSES

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following course can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees:

BIOC 1001

### BIOC 1001 (3.00 CR) INTRODUCTORY BIOCHEMISTRY

This course introduces current topics and advances in Biochemistry and engages students in the scope and activities of the discipline. It examines the central role of water in biological systems, leading to an introduction of acid-base equilibria, the properties of biological membranes, and the bioenergetics of solutes moving across membranes. It introduces the principles of carbon bonding and electronegativity, leading to coverage of the bioorganic functional groups, whose characteristic properties and reactions combine to create the highly complex biological macromolecule classes of carbohydrates, proteins, nucleic acids, and lipids. (Format: Lecture 3 Hours, Tutorial 1.5 Hours) (Distribution: Natural Science-b)

### BIOC 1991 (3.00 CR) SPECIAL TOPIC IN BIOCHEMISTRY

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for BIOC 1991 more than once, provided the subject matter differs.] (Format: Variable)

### BIOC 2001 (3.00 CR) ENZYMOLGY AND METABOLISM

**Prereq:** Second-year standing; BIOC 1001; or permission of the Department

This course examines the properties of enzymes including kinetics and regulation. It introduces carbohydrate and fat metabolism, respiratory and photosynthetic electron transport, and nitrogen assimilation and dissimilation, concentrating on key stoichiometries, structures, redox biochemistry, and bioenergetics. (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: Any version of BIOC 2001 previously offered with a different title)

### BIOC 2991 (3.00 CR) SPECIAL TOPIC IN BIOCHEMISTRY

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for BIOC 2991 more than once, provided the subject matter differs.] (Format: Variable)

**BIOC 3001 (3.00 CR)**  
**EXPERIENTIAL BIOCHEMISTRY**

**Prereq:** BIOC 2001; or permission of the Department

This course teaches students to plan and conduct a range of current biochemical analyses including spectroscopy, gas analyses, and chromatographic separations and imaging, with particular emphasis on the new opportunities opened through high-throughput computerized data capture applied to both established and new instrumental analyses. In parallel it guides students through the processes of plotting, interpreting, and presenting the meaning of their results. (Format: Integrated Lecture and Laboratory, 6 Hours)

**BIOC 3031 (3.00 CR)**  
**MOLECULAR ANALYSES**

**Prereq:** BIOC 2001; or permission of the Department

This course focuses on experiential analysis and computer modeling of key concepts of the molecular basis of biology, including nucleic acid structure, synthesis, and replication through template-directed polymerizations. The course builds on these key concepts to explore gene structure, expression, and engineering, leading to the wide-ranging applications of molecular biology to biology, medicine, and diagnostics. [Note 1: This course is cross-listed as BIOL 3031 and may therefore count as 3 credits in either discipline. Note 2: This course is required for students completing a Major or Honours in Biochemistry. It is open to students from other programs on a space available basis, provided that the student has met the prerequisite requirement.] (Format: Integrated Lecture and Laboratory, 6 Hours) (Exclusion: BIOC 3021; BIOC 3531)

**BIOC 3041 (3.00 CR)**  
**NUCLEIC ACIDS: STRUCTURES, MECHANISMS AND REGULATIONS**

**Prereq:** BIOC 2001; BIOL 1501; or permission of the Department

This course interlinks structural, mechanistic, and regulatory aspects of nucleic acid function. It explores the structures of DNA and RNA and how DNA assembles into chromosomes. It also reviews the mechanisms of DNA replication, repair, recombination, transcription, and RNA splicing. It examines the complexity and ingenuity of gene regulation in both prokaryotes and eukaryotes. (Format: Lecture 3 Hours) (Exclusion: BIOC 4911 Nucleic Acids)

**BIOC 3051 (3.00 CR)**  
**MOLECULAR IMMUNOLOGY**

**Prereq:** BIOL 1501; BIOC 2001; or permission of the Department

This course explains the core molecular structures of the immune system: antibodies and their interactions with antigens. It places these molecular interactions in the context of the cells and tissues of the immune system and the signaling cascades that regulate immune responses. The course concludes with topics in immunology and applications of immunochemistry. [Note 1: This course is cross-listed with BIOL 3051 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours) (Exclusion: BIOC 4011)

**BIOC 3131 (3.00 CR)**  
**ORGANIC CHEMISTRY: BIOORGANIC**

**Prereq:** CHEM 2121; or permission of the Department

This course presents the principles of organic chemistry as they apply to biochemical problems. Topics covered include enzymic reaction mechanisms, enzyme cofactors, peptide and nucleic acid synthesis, and enzymes in organic synthesis. [Note 1: This course is cross-listed with CHEM 3131 and may therefore count as three credits in either discipline. Chemistry students should register for CHEM 3131.] (Format: Lecture 3 Hours)

**BIOC 3501 (3.00 CR)**  
**ADVANCED METABOLISM**

**Prereq:** BIOC 2001; or permission of the Department

This course examines the coordinated biochemical transformations of matter, energy, and information through metabolic pathways, emphasizing nitrogen, lipid, and secondary metabolism, metabolic compartmentalization and integration, and bioenergetics. (Format: Lecture 3 Hours) (Exclusion: BIOC 3501 Metabolism)

**BIOC 3521 (3.00 CR)**  
**PROTEIN BIOCHEMISTRY**

**Prereq:** BIOC 2001; or permission of the Department

This course examines the relations between protein structure and function at the primary, secondary, tertiary, and quaternary levels; enzyme catalysis and mechanism; isolation, purification, and characterization of proteins; the metabolism of proteins through synthesis and degradation; and recent trends in protein design. Students learn sequence comparison, motif searching, and development of visual protein structures constructed from the protein structural data bases available over the web. The course introduces mass spectroscopic analyses of the proteome and protein sequencing. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**BIOC 3711 (3.00 CR)**  
**BIOCHEMICAL ECOLOGY**

**Prereq:** BIOL 2101; BIOC 2001; or permission of the Biology Department

This course deals with the biochemistry of interactions between animals, plants and microorganisms that occur in the natural environment. It places strong emphasis on the role of "secondary metabolites" or "natural products" such as alkaloids, flavonoids, terpenoids, etc., in the insect-plant, vertebrate-plant, plant-plant and vertebrate-vertebrate relationships. [Note 1: This course is cross-listed with BIOL 3711 and may therefore count as three credits in either discipline.] (Format: Seminar 3 Hours)

**BIOC 3991 (3.00 CR)**  
**SPECIAL TOPIC IN BIOCHEMISTRY**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for BIOC 3991 more than once, provided the subject matter differs.] (Format: Variable)

**BIOC 4021 (3.00 CR)****LIPID AND MEMBRANE BIOCHEMISTRY**

**Prereq:** BIOC 2001; or permission of the Department

This course covers the metabolism of major classes of lipids, their roles in signal transduction, and their interactions with proteins. (Format: Lecture 3 Hours)

**BIOC 4031 (3.00 CR)****SIGNAL TRANSDUCTION**

**Prereq:** BIOC 3521; or permission of the Department

This course examines the processes by which cells receive external signals and convert this information into cellular events through ordered sequences of biochemical reactions that may result in changes to cellular metabolism, behaviour, or gene expression. (Format: Lecture 3 Hours)

**BIOC 4151 (3.00 CR)****VIROLOGY**

**Prereq:** Third-year standing; BIOL 2201; 3 credits from BIOL 2601, 2811, BIOC 3041; or permission of the Department

This course introduces the fundamental features of animal, bacterial, and plant viruses. It covers the biochemical genetic features of viral structure and replication, techniques used in studying viruses, the evolution of viruses, cell defences against viruses, the history of viruses as the causal agents of animal and plant disease, and current antiviral strategies. It also discusses the role of viruses as agents of evolutionary change and their use in modern molecular genetics. [Note 1: This course is cross-listed with BIOL 4151 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours)

**BIOC 4201 (3.00 CR)****ENVIRONMENTAL PHYSIOLOGY AND BIOCHEMISTRY OF ANIMALS**

**Prereq:** 3 credits from BIOC 2001, BIOL 3201, BIOL 3211; or Permission of the Department

This course in animal physiology examines the physiological and biochemical strategies animals use to survive in diverse, often stressful environments. Using primary literature from scientific journals, this course focuses on animal responses to environmental conditions such as hypoxia and anoxia, high and low temperatures, overwintering, altitude, environmental pollutants, osmotic stress, and UV radiation. [Note 1: Weekly discussion groups on recent topical papers form a major component of this course. Note 2: This course is cross-listed with BIOL 4201 and may therefore count as three credits in either discipline.] (Format: Seminar 3 hours) (Exclusion: BIOC 4201 previously offered with a different title)

**BIOC 4351 (3.00 CR)****INORGANIC CHEMISTRY: BIOINORGANIC**

**Prereq:** CHEM 2311; CHEM 3321; or permission of the Department

This course examines the roles metals play in biochemical systems, and includes an overview of bioinorganic chemistry and a discussion of metals in medicine. [Note 1: This course is cross-listed with CHEM 4351 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours)

**BIOC 4903 (3.00 CR)****CURRENT ADVANCES IN BIOCHEMISTRY**

**Prereq:** Fourth-year standing

**Coreq:** BIOC 4990

This is a seminar course for Honours students in Biochemistry, which critically evaluates a wide range of topics from the current literature. Students are expected to deliver seminars on topics outside their thesis areas and to present preliminary thesis results. (Format: Seminar 3 Hours)

**BIOC 4950 (6.00 CR)****INDEPENDENT STUDY IN BIOCHEMISTRY**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor is required. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for BIOC 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**BIOC 4951 (3.00 CR)****INDEPENDENT STUDY IN BIOCHEMISTRY**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. (Format: Independent Study) [Note 1: Permission of the Department/Program Advisor is required. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for BIOC 4950/51 more than once, provided the subject matter differs.]

**BIOC 4990 (6.00 CR)****HONOURS THESIS**

**Coreq:** BIOC 4903

The honours thesis is based upon a program of original student research conducted with the advice of an academic supervisor. [Note 1: Consent of supervising staff member prior to registration and permission of the Program Advisor is required.] (Format: Independent Study/Thesis)

**BIOC 4991 (3.00 CR)****SPECIAL TOPIC IN BIOCHEMISTRY**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for BIOC 4991 more than once, provided the subject matter differs.] (Format: Variable)



## BIOLOGY

Biology is the scientific study of living things: their form, their function, their origin and their behaviour. The study of Biology can be an important part of a liberal education, for to understand it well requires knowledge of chemistry, physics, mathematics, and natural history; to describe it well requires a command of language and ability to present observations visually; to appreciate it requires an awareness of human nature, both past and present, and the interplay between humans and other living organisms and their common environment. For three thousand years this discipline has developed to describe living things in aid of the arts of healing, of gardening and of living. Today it abounds with exciting new knowledge and discoveries, so that wise people still read about it with amazement or pursue it with delight.

In this Department three things are attempted: to give all students an understanding of the scope, techniques and general principles which underpin Biology; to encourage independent study and self-learning where possible; to give those students who are seriously interested in advanced studies an opportunity of exploring the areas of special interest to faculty who are primarily concerned with the fields of ecology and physiology.

Students intending to take a Major or Minor or Honours in Biology should consult the Department website and/or a Program Advisor before completing registration.

### Disciplinary B.Sc. Programs

#### MINOR in Biology is 24 credits earned as follows:

- 6 from BIOL 1001, 1501
- 3 from CHEM 1001, BIOC 1001
- 9 from BIOL 2101, 2201, 2301, 2401, 2701, 2811
- 6 from Biology at the 3/4000 level. Up to 3 credits of this requirement may be obtained from the following courses: BIOC 3041, BIOC 3501, BIOC 3521, PSYC 3101, PSYC 3211, PSYC 4611, GENS 3431, GENS 3461, GENS 4421

#### MAJOR in Biology is 60 credits earned as follows:

- 6 from BIOL 1001, 1501
- 3 from PHYS 1051, 1041
- 3 from MATH 1111 or 1151
- 3 from MATH 1121, 1251, 2211, 2221, or COMP 1631
- 3 from CHEM 1001
- 3 from BIOC 1001
- 9 from BIOL 2101, 2701, 2811
- 9 from BIOL 2201, 2301, 2401, BIOC 2001
- 21 additional credits from Biology at the 3/4000 level. Up to 6 credits of this requirement may be obtained from the following courses: BIOC 3041, BIOC 3501, BIOC 3521, PSYC 3101, PSYC 3211, PSYC 4611, GENS 3431, GENS 3461, GENS 4421

**Note:** BIOC 2001 is a prerequisite for several 3/4000 Biology courses.

**Note:** Additional 3/4000 level courses are needed to fulfill Calendar Regulation 11.3.5

#### HONOURS in Biology is 75 credits earned as follows:

- 60 as in the Major, including 3 credits from BIOL 2701 or 4711, plus:
- 9 from BIOL 4903, 4990
- 6 from Biology at the 3/4000 level, chosen in consultation with the Program Advisor

**Note:** The thesis required will involve laboratory or field investigation, and unless the candidate shows satisfactory ability to carry on independent work, honours will not be recommended. With permission of the Biology Department, up to 6 credits from an approved list of courses given in other departments can be used as the equivalent of Biology courses in the Major or Honours.

### BIOLOGY COURSES

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following course can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees: BIOL 1201

#### BIOL 1001 (3.00 CR) FOUNDATIONS OF BIOLOGY

This course introduces the fundamentals of organismal biology: the scientific method, principles of evolution including Darwin's theory of natural selection, adaptations in organismal form and function, biodiversity, the interactions of organisms with their environment, and the practices of scientific communication. [Note 1: This course is designed for science majors. Students who intend to continue to study in Biology should note the need to complete BIOC 1001 as a prerequisite for BIOL 1501.] (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: Any version of BIOL 1001 previously offered with a different title)

#### BIOL 1201 (3.00 CR) HUMAN BIOLOGY

This course applies biological principles to practical human concerns. It introduces the development, structure and function of the human body, and mechanisms involved in degenerative infectious diseases, discusses human reproduction and genetics, examines the impact of evolutionary theory on our understanding of the human species, considers the interdependence between natural ecosystems and human activities, and looks at threats to the environment through pollution and overpopulation. [Note 1: This course is restricted to non-science majors. Science majors require the instructor's permission to enrol.] (Format: Lecture 3 Hours)(Distribution: Natural Science-b)

**BIOL 1501 (3.00 CR)****CELL BIOLOGY**

**Prereq:** BIOC 1001; or permission of the Department

This course introduces the structure, organization and functions of the cell, which is the fundamental structural and functional unit of living organisms. It places particular emphasis on eukaryotic cells. Topics include: membranes and organelles, communication within and between cells, membrane transport, the cell cycle, meiosis and mitosis. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**BIOL 1991 (3.00 CR)****SPECIAL TOPIC IN BIOLOGY**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for BIOL 1991 more than once, provided the subject matter differs.] (Format: Variable)

**BIOL 2101 (3.00 CR)****INTRODUCTION TO ECOLOGY**

**Prereq:** BIOL 1001; BIOL 1501 strongly recommended; or permission of the Department

This course introduces current concepts of population and community ecology using local ecosystems and organisms, principally aquatic insects, whenever possible. (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: Any version of BIOL 2101 previously offered with a different title)

**BIOL 2201 (3.00 CR)****FORM AND FUNCTION: MICROORGANISMS**

**Prereq:** 3 credits from BIOL 1501, BIOC 2001; or permission of the Department

This course surveys the evolutionary and functional diversity of the Archaea, Bacteria, and selected eukaryotic microbes, examining the cellular structures and metabolic processes characteristic of each group, and how these characteristics allow humans to control and use microbial growth. The course also examines how genomic sequencing is altering our views of microbial evolution and ecology. (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: BIOL 3101)

**BIOL 2301 (3.00 CR)****FORM AND FUNCTION: PLANTS**

**Prereq:** BIOL 1001; BIOL 1501 strongly recommended; or permission of the Department

This course introduces the structure and function of plants with an emphasis on vascular plants. Topics include comparative anatomy, development and functional adaptations to the environment, and how genomic sequencing is altering our views of plant evolution and ecology. (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: Any version of BIOL 2301 previously offered with a different title)

**BIOL 2401 (3.00 CR)****FORM AND FUNCTION: ANIMALS**

**Prereq:** BIOL 1001; BIOL 1501; or permission of the Department

This course introduces students to the structure and function of major groups of invertebrate and vertebrate animals on a comparative basis by observation of both preserved and living material. Topics include comparative anatomy and phylogeny, and the evolution and function of locomotory, digestive, excretory, respiratory, nervous and reproductive systems. (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: Any version of BIOL 2401 previously offered with a different title)

**BIOL 2701 (3.00 CR)****INTRODUCTORY DESIGN & STATISTICAL ANALYSIS**

**Prereq:** 3 credits from BIOL 1001, 1501; 3 credits from MATH 1111, 1151; or permission of the Department

This course introduces data analysis, the principles of experimental design and the formulating and testing of hypotheses. It describes graphical and statistical (t-test, chi-square test, ANOVA) analyses of laboratory and field collected data, and discusses their appropriate use in Biology. [Note 1: Data management and statistical analyses uses Excel and R.] (Format: Lecture 3 Hours and Tutorial 1.5 Hours) (Exclusion: BIOL 3701; any version of BIOL 2701 previously offered with a different title)

**BIOL 2811 (3.00 CR)****GENETICS AND EVOLUTION**

**Prereq:** BIOL 1001; BIOL 1501; or permission of the Department

This course examines evolution by natural selection as the driving force behind the diversity of life, examining genetic and evolutionary processes from the level of cells (gene transcription, recombination, mutation) to populations (selection, migration, genetic drift) to species (speciation, extinction, constraint). It examines modern theories of biological evolution, building from Mendelian genetics to genomics, and presents evolutionary biology as an experimental science, emphasizing the methods used to test evolutionary hypotheses in the wild and in the lab. It uses viruses, bacteria, and eukaryotes of various levels of complexity as examples both in lectures and laboratories. (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: 6 credits from BIOL 2601, 2801)

**BIOL 2991 (3.00 CR)****SPECIAL TOPIC IN BIOLOGY**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for BIOL 2991 more than once, provided the subject matter differs.] (Format: Variable)

**BIOL 3021 (3.00 CR)****PALAEONTOLOGY**

**Prereq:** BIOL 2301; BIOL 2401; or permission of the Department

This course provides an overview of the major fossil plant and animal taxa in the context of the history of macroscopic and microscopic forms of life on Earth. It discusses morphology and anatomy of organisms in relation to accompanying changes in marine and terrestrial environments and when appropriate it emphasizes diagnostic features of the organisms used as time (biostratigraphy) and/or environmental (paleoecology) indicators. (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: GENS 3991 Introduction to Palaeontology)

**BIOL 3031 (3.00 CR)****MOLECULAR ANALYSES**

**Prereq:** BIOC 2001; or permission of the Department

This course focuses on experiential analysis and computer modeling of key concepts of the molecular basis of biology, including nucleic acid structure, synthesis, and replication through template-directed polymerizations. The course builds on these key concepts to explore gene structure, expression, and engineering, leading to the wide-ranging applications of molecular biology to biology, medicine, and diagnostics. [Note 1: This course is cross-listed with BIOC 3031 and may therefore count as 3 credits in either discipline. Note 2: This course is required for students completing a Major or Honours in Biochemistry. It is open to students from other programs on a space available basis, provided that the student has met the prerequisite requirement.] (Format: Integrated Lecture and Laboratory, 6 Hours) (Exclusion: BIOC 3021; BIOC 3531)

**BIOL 3051 (3.00 CR)****MOLECULAR IMMUNOLOGY**

**Prereq:** BIOC 2001; or permission of the Department

This course explains the core molecular structures of the immune system: antibodies and their interactions with antigens. It places these molecular interactions in the context of the cells and tissues of the immune system and the signaling cascades that regulate immune responses. The course concludes with topics in immunology and applications of immunochemistry. [Note 1: This course is cross-listed with BIOC 3051 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours)(Exclusion: BIOC 4011)

**BIOL 3111 (3.00 CR)****ENVIRONMENTAL MICROBIOLOGY**

**Prereq:** 3 credits from BIOL 2201, BIOC 2001; or permission of the Department

This course covers the ecophysiology of microorganisms. The course surveys the key functional microbial groups which mediate major steps in the biogeochemical cycles, their ecological requirements and factors limiting their growth and activity. This leads to discussion of the roles of microorganisms in current issues in biology, industry and environmental science. (Format: Integrated Lecture and Laboratory 6 Hours) (Exclusion: Any version of BIOL 3111 previously offered with a different title)

**BIOL 3201 (3.00 CR)****ANIMAL PHYSIOLOGY; ADAPTATION AND ENVIRONMENT**

**Prereq:** BIOL 2401; BIOL 2701; or permission of the Department

This course focuses on the physiological processes underpinning a monumental step in the evolution of the vertebrates, the transition from water to land. It examines the respiratory, circulatory, acid-base and osmoregulatory adaptations seen in fish to mammals and studies the integration of animal physiology with the environment by investigating metabolism and temperature. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**BIOL 3211 (3.00 CR)****HUMAN PHYSIOLOGY**

**Prereq:** Third-year standing; BIOL 1501; or permission of the Department

This course provides a comprehensive study of the physiology of the human body. It examines the function of the nervous, muscular, sensory, endocrine, respiratory, cardiovascular, and renal systems. [Note: Laboratory exercises with students as participants in experiments complement the course material and advance students' knowledge of important physiological processes.] (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusions: Any version of BIOL 3201 offered prior to 2015-2016; Any version of BIOL 3211 previously offered with a different title)

**BIOL 3221 (3.00 CR)****HUMAN ANATOMY**

**Prereq:** 3 credits from BIOL 2401, 3211; or permission of the Department

This course examines the structural organization of the human body, including the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, respiratory, digestive, urinary, and reproductive systems. It investigates these systems in the context of human health and disease. (Format: Lecture 3 Hours) (Exclusion BIOL 3991 Human Anatomy)

**BIOL 3301 (3.00 CR)****PHYSIOLOGICAL PLANT ECOLOGY**

**Prereq:** BIOL 2101; BIOL 2301; or permission of the Department

This course examines the ways by which plants respond to their environments. Topics include a discussion of transpiration and heat transfer, photosynthesis in nature, vernalization, photoperiodism and response to stresses such as drought, temperature, salinity and pollutants. (Format: Lecture and Laboratory 3 Hours) (Exclusion: BIOL 4301)

**BIOL 3351 (3.00 CR)****MARINE BOTANY**

**Prereq:** BIOL 2301; or permission of the Department

A lecture, laboratory, and field course summarizing recent advances in our understanding of macroscopic plant growth in the sea. This progress has been based upon studies involving morphology, development, physiology, and ecology. The following topics will be emphasized: the sea as an environment for plants to grow, production of marine plants, morphogenesis and geographic distribution of marine plants, and use of marine plants. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**BIOL 3361 (3.00 CR)****MARINE BIOLOGY I: COASTAL SYSTEMS**

**Prereq:** BIOL 2101; 2401; or permission of the Department

This course investigates the ecology of estuarine, intertidal, and subtidal ecosystems at the individual, population and community level. Topics include community structure, food webs, reproductive biology of benthic organisms, and effects of physical and anthropogenic factors.

[Note: The course includes a field trip to the Huntsman Marine Sciences Centre in St. Andrews, N.B. Students are expected to contribute to their accommodation costs.] (Format: Lecture 3 Hours, Field Trip)

**BIOL 3371 (3.00 CR)****PRINCIPLES OF AQUACULTURE**

**Prereq:** BIOL 2401; or permission of the Department

This course introduces the history, practice, and future of aquaculture with particular emphasis on development of finfish aquaculture in Atlantic Canada. Topics include biology of growth, culture of live feed, hatchery techniques, health, nutrition, engineering, economics, and public policy. (Format: Lecture 3 Hours, Laboratory 3 Hours)

(Exclusion: BIOL 3991 Principles of Aquaculture)

**BIOL 3401 (3.00 CR)****ANIMAL BEHAVIOUR**

**Prereq:** BIOL 2101; BIOL 2401; or permission of the Department

A course which will present the development, physiology, ecology and evolution of animal behaviour. Topics to be discussed will include basic concepts of behavioural organization; physiology of behaviour, learning and memory phenomena; behaviour of communication; reproductive behaviour and mating systems; spatial distribution patterns and social systems; migrations and orientation mechanisms; feeding and anti-predator behaviours. Field excursions and laboratory exercises will permit students to observe and to quantify different behaviours in a variety of animal species. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**BIOL 3421 (3.00 CR)****BIOGEOGRAPHY**

**Prereq:** GENS 2421; GENS 2431; or permission of the Department

This course explores the links between the geomorphology and climatology of a region and the plant-animal environments through a biogeographical approach to ecological studies. It focuses on the geography of plants including environmental controls of plant distributions and the functional and historical aspects of plant communities. [Note 1: This course is cross-listed with GENS 3421 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: GEOG 3421)

**BIOL 3451 (3.00 CR)****ENTOMOLOGY**

**Prereq:** BIOL 2401; or permission of the Department

Insects surpass all other organisms in their diversity and numbers, comprising over two thirds of the earth's known animals. This course will introduce students to this class of organisms by covering the following six areas: structure, function classification and phylogeny, behaviour and ecology. Throughout the course, evolutionary forces influencing the animals and systems involved will be stressed. Discussions will emphasize the use of the comparative methods to determine what these forces might be. (Format: Lecture 3 Hours, Laboratory/Field Trip 3 Hours)

**BIOL 3471 (3.00 CR)****LIMNOLOGY**

**Prereq:** 3 credits from GENS 2431, BIOL 2701; 9 credits from BIOL 1001, BIOL 2101, BIOC 1001, CHEM 1001, PHYS 1041, PHYS 1051; or permission of Department

This course examines the structure and function of freshwater ecosystems. It emphasizes the physical, chemical, and biological processes that occur within lakes and, to a lesser extent, river and wetland environments. The course also covers the diversity of, and interactions between, major biological communities in lakes, and it highlights environmental stressors that threaten freshwaters. [Note 1: This course is cross-listed with GENS 3471 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours)

(Exclusion: GENS 3991 Stressors on Freshwater Systems; GENS 3991 Limnology)

**BIOL 3501 (3.00 CR)****NATIVE FLORA (VASCULAR PLANTS)**

**Prereq:** BIOL 2301; or permission of the Department

This course presents principles of plant systematics and taxonomy, and the key characters of important families of vascular plants in the New Brunswick flora, enabling students to recognize plants belonging to these families in the field. Students will practice using dichotomous keys, preparing and handling herbarium specimens, and conveying of biological information through botanical sketches and floral diagrams. (Format: Lecture 3 Hours, Laboratory/Field Trip 3 Hours)

**BIOL 3511 (3.00 CR)****INVERTEBRATE ZOOLOGY**

**Prereq:** BIOL 2401; or permission of the Department

This course investigates in an evolutionary framework the variation in body plan, physiology, reproduction, and ecology for the more than thirty invertebrate phyla. (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: BIOL 4511)

**BIOL 3601 (3.00 CR)****ECOLOGICAL GENETICS**

**Prereq:** BIOL 2811; or 6 credits from BIOL 2601, 2801; or permission of the Department

This course investigates theoretical and observed changes in ecologically significant traits. It explores the connections between ecological properties of populations and evolutionary forces at work through the study of population structure, mathematical treatment of models, quantitative traits, and natural selection on phenotypic traits. (Format: Lecture 3 Hours)

**BIOL 3621 (3.00 CR)****APPLIED GENETICS**

**Prereq or Coreq:** BIOL 3661; or permission of the Department

This course explores how genetic technologies can be used to solve current problems in biology, ranging from ecology to medicine. It teaches skills in current genetic technologies including some or all of: polymerase chain reaction (PCR), DNA extraction, gel electrophoresis, cytology, in situ hybridization, immunocytology, data mining, bioinformatics, conventional light microscopy, fluorescent microscopy, scanning electron microscopy, and related techniques. (Format: Integrated Lecture and Laboratory, 5 Hours)

**BIOL 3631 (3.00 CR)**  
**DEVELOPMENTAL BIOLOGY**

**Prereq:** BIOL 2811; or 6 credits from BIOL 2601, 2801; or permission of the Department

The course provides a foundation to the rapidly expanding field of Developmental Biology, which draws upon the disciplines of Cell Biology, Genetics, and Molecular Biology. This course focuses on the structural changes exhibited during the development, differentiation, and growth of organisms. It examines gametogenesis, fertilization, and embryogenesis in a variety of model organisms. Laboratory exercises reinforce the concepts and stages of development. (Format: Lecture 3 Hours, Laboratory 3 hours) (Exclusion: BIOL 3311; any version of BIOL 3631 previously offered with a different title)

**BIOL 3651 (3.00 CR)**  
**INTRODUCTION TO ORNITHOLOGY**

**Prereq:** BIOL 2101; BIOL 2401; or permission of the Department

An introduction to the study of birds through lectures, laboratories and field trips. All of the bird families represented in the Maritime region will be discussed, with special emphasis on anatomy, structural adaptations, behaviour and physiology. The species composing the bird communities of the Sackville area will be examined during field trips. (Format: Lecture 3 Hours, Laboratory/Field Trip 3 Hours)

**BIOL 3661 (3.00 CR)**  
**GENETIC ANALYSIS**

**Prereq:** BIOL 2811; or 6 credits from BIOL 2601, 2801; or permission of the Department

This course explores how the genetic program of cells interacts with the external and organismal environment to produce the phenotype of the organism. It explores our current understanding of how interactions between genes, gene identification, gene-environment interactions, gene regulation, and epigenetics allow normal development. Human, animal, and plant diseases provide examples of how these processes work and the consequences of disruption. (Format: Lecture 3 Hours)

**BIOL 3711 (3.00 CR)**  
**BIOCHEMICAL ECOLOGY**

**Prereq:** BIOL 2101; BIOC 2001; or permission of the Biology Department

This course deals with the biochemistry of interactions between animals, plants and microorganisms that occur in the natural environment. It places strong emphasis on the role of so-called "secondary metabolites" or "natural products" such as alkaloids, flavonoids, terpenoids, etc., in the insect-plant, vertebrate-plant, plant-plant and vertebrate-vertebrate relationships. (Format: Seminar 3 Hours) [Note 1: This course is cross-listed with BIOC 3711 and may therefore count as three credits in either discipline.]

**BIOL 3751 (3.00 CR)**  
**COMPARATIVE CHORDATE ANATOMY**

**Prereq:** BIOL 2401; or permission of the Department

A lecture and laboratory course in which the structure, function and diversity of vertebrate animals will be examined and compared. It will discuss successive modifications of structural and functional systems found in vertebrates, and speculate on the survival value of these systems and on their relationships to contemporary environments. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**BIOL 3781 (3.00 CR)**  
**TROPICAL MARINE BIOLOGY**

**Prereq:** BIOL 2101; 2401; or permission of the Department

This course introduces the fauna, flora and complex ecological and behavioural interactions of organisms in tropical habitats and allows independent research in such habitats. It includes on-site exploration of coral reefs, reef lagoons, mangrove swamps and rocky shores. [Note 1: The field component of this course usually takes place at a location in the Caribbean. Enrollment is limited and students should be aware of the additional costs of travel and participation fees.] (Format: Lecture 3 Hours, Field Trip; (Exclusion: BIOL 4701)

**BIOL 3801 (3.00 CR)**  
**THEORETICAL AND EVOLUTIONARY ECOLOGY**

**Prereq:** Third-year standing; BIOL 2101; BIOL 2701; or permission of the Department

This course evaluates theories of population and evolutionary ecology that were introduced in BIOL 2101. Using a suite of mathematical and simulation techniques, it explores the effects of specific parameters on the predicted outcomes of evolutionary models and ecological models such as population growth, competition, predation, and community. The course assesses the limitations, application, and interpretation of outcomes for each examined model. (Format: Lecture 3 Hours)

**BIOL 3811 (3.00 CR)**  
**CONSERVATION BIOLOGY**

**Prereq:** BIOL 2101; or permission of the Department

The field of conservation biology applies to the principles of ecology, biogeography, and population genetics to the mitigation of human impact and the maintenance of global biodiversity. The course will familiarize the student with the concepts and principles of conservation biology and will encourage active debate about threats to ecological integrity and the ways scientists attempt to cope with such threats. (Format: Lecture 3 Hours)

**BIOL 3911 (3.00 CR)**  
**PLANTS AND HUMAN SOCIETY**

**Prereq:** Third-year standing; 3 credits from BIOL; or permission of the Department

This course investigates the interactions between plants and human societies from the introduction of agriculture until the present. It includes the consideration of the evolution of vascular plants, especially those important to agriculture and forestry. It emphasizes the origins of agriculture on various continents and discusses economic botany and the present day commercial uses of plants. It also considers interrelations between plants and societies in dietary, cultural and religious connotations. Finally, the course considers world food shortages, either present or potential, and possible ways to alleviate these. (Format: Lecture 3 Hours)

**BIOL 3941 (3.00 CR)**  
**PLANT PHYSIOLOGY**

**Prereq:** 3 credits from BIOL 2301, BIOC 2001; or permission of the Department

This course presents a general introduction to the physiology of plants. Topics discussed include photosynthesis, from the level of light entrapment to that of the fixation of carbon dioxide; translocation of sugars and the storage of energy rich food reserves; transpiration and water loss from leaves; water uptake and transport within the plant; plant defense from perception of biotic or abiotic stress to the plant response; and mineral nutrition including uptake, transport, distribution, and use of nutrients. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**BIOL 3991 (3.00 CR)**  
**SPECIAL TOPIC IN BIOLOGY**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for BIOL 3991 more than once, provided the subject matter differs.] (Format: Variable)

**BIOL 4101 (3.00 CR)**  
**BEHAVIOURAL ECOLOGY**

**Prereq:** 3 credits from BIOL 2801, 2811; BIOL 3401; or permission of the Department

This course explores the relationships between animal behaviour and ecology, emphasizing the behavioural strategies which animals have evolved to enhance their survival and to increase their reproductive success. It discusses topics such as foraging, living in groups, resource defence, sexual selection, parental care, mating systems, altruism and communication within a neo-Darwinian framework using optimality models and game theory. (Format: Lecture 3 Hours)

**BIOL 4111 (3.00 CR)**  
**FIELD ECOLOGY**

**Prereq:** BIOL 2101; 3 credits from BIOL 2701, 4711; or permission of the Department

This course introduces the basic principles of field ecology research, experimental design, and data analysis. It considers various techniques used in quantitative field ecology, including the design of observational and manipulative studies, and methods used to quantify abundance of plants and animals, implementing these in a wide range of environments during the field week. [Note 1: This course requires a 6-day field course component in August as well as regular class meetings through the term.] (Format: Field course, Lecture 3 Hours)

**BIOL 4151 (3.00 CR)**  
**VIROLOGY**

**Prereq:** Third-year standing; BIOL 2201; 3 credits from BIOL 2601, 2811, BIOC 3041; or permission of the Department

This course introduces the fundamental features of animal, bacterial, and plant viruses. It covers the biochemical genetic features of viral structure and replication, techniques used in studying viruses, the evolution of viruses, cell defence against viruses, the history of viruses as the causal agents of animal and plant disease, and current antiviral strategies. It also discusses the role of viruses as agents of evolutionary change, and their use in modern molecular genetics. [Note 1: This course is cross-listed with BIOC 4151 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours)

**BIOL 4201 (3.00 CR)**  
**ENVIRONMENTAL PHYSIOLOGY AND BIOCHEMISTRY OF ANIMALS**

**Prereq:** 3 credits from BIOL 3201, BIOL 3211, BIOC 2001; or permission of the Department

This course in animal physiology examines the physiological and biochemical strategies animals use to survive in diverse, often stressful environments. Using primary literature from scientific journals, this course focuses on animal responses to environmental conditions such as hypoxia/anoxia, high and low temperatures, overwintering, altitude, environmental pollutants, osmotic stress and UV radiation. [Note 1: Weekly discussion groups on recent topical papers form a major component of this course. Note 2: This course is cross-listed with BIOC 4201 and may therefore count as three credits in either discipline.] (Format: Seminar 3 hours) (Exclusion: Any version of BIOL 4201 previously offered with a different title)

**BIOL 4211 (3.00 CR)**  
**ENDOCRINOLOGY**

**Prereq:** BIOL 3211; or permission of the Department

This course investigates vertebrate hormone systems and may examine some aspects of invertebrate systems. It discusses hormone synthesis, control of secretion, modes of secretion and general mechanisms of action and examines specific hormone systems such as the hypothalamus-pituitary axis, renin-angiotensin system, and pituitary-adrenal axis. (Format: Seminar 3 Hours)

**BIOL 4221 (3.00 CR)**  
**EXERCISE PHYSIOLOGY**

**Prereq:** 3 credits from BIOL 3201, BIOL 3211; or permission of the Department

This course explores the metabolic and systemic basis of exercise, the physiology of training and performance and exercise under special conditions such as environment and disease. In addition to studying these fundamentals of exercise physiology, this course delves into recent research and advancements in the field. (Format: Seminar 3 Hours)

**BIOL 4311 (3.00 CR)**  
**NEUROPHYSIOLOGY**

**Prereq:** BIOL 3211; or permission of the Department

This course investigates advanced topics in neurophysiology including neuro- and glio-transmission, the physiology and plasticity of synapses, and neuronal circuits that underlie behaviour. It also discusses the development and pathophysiology of the nervous system. (Format: Lecture/Seminar 3 Hours) (Exclusion: BIOL 4991 Special Topics in Neurophysiology)

**BIOL 4371 (3.00 CR)**  
**ADVANCED TOPICS IN MARINE SCIENCE**

**Prereq:** Third-year standing; BIOL 2101; or permission of the Department;

This course provides the opportunity for in-depth research of selected topics from the most current and progressive areas of marine science such as advances in biological, geological, chemical and physical oceanography and methodologies such as genomic approach to assessment of oceanic biodiversity and application of remote technology in marine exploration of the deep sea. The course emphasizes specific topics of global significance such as interactions between ocean and atmosphere, integrative and sustainable aquaculture, invasive biology, and marine pollution. (Format: Lecture 3 hours) (Exclusion: Any version of BIOL 4371 previously offered with a different title)

**BIOL 4401 (3.00 CR)**  
**EVOLUTIONARY BIOLOGY OF SEX AND REPRODUCTION**

**Prereq:** 3 credits from BIOL 2801, 2811; BIOL 3401; or permission of the department

This course discusses the evolution of sexuality and various reproductive patterns. Topics include what is sex, sexual and asexual reproduction, asexual reproduction and parthenogenesis, the role of sex in evolution, Muller's Ratchet vs. the Red Queen, genetic and epigenetic sex determination, sexual selection, mating strategies of males and females, role of parasites in the evolution of sex, fertilization strategies and hermaphroditism. (Format: Seminar 3 Hours)

**BIOL 4411 (3.00 CR)**  
**ECOLOGY AND BIOLOGY OF FISHES**

**Prereq:** BIOL 2101; BIOL 2401; 3 credits from BIOL 2701, GENS 2431, MATH 2311, PSYC 2001; or permission of the Department

This course provides an overview of the general biology of fish-like chordates, with particular emphasis on the teleost fishes and on adaptations that have allowed fishes to become the most evolutionary successful group of vertebrates. Topics include: aspects of form and function, ecology and behaviour, and fisheries management. (Format: Lecture 3 Hours, Laboratory 3 Hours/Field Trip 3 Hours) (Exclusion: BIOL 3411)

**BIOL 4621 (3.00 CR)**  
**GENES, CELLS, AND DISEASE**

**Prereq:** BIOL 3661; or permission of the Department

This course examines the genetic basis of cellular processes and organelles such as telomeres, nuclear architecture, cytoskeleton, intracellular transport, the extracellular matrix, cell cycle control, and the contribution to disease when these processes are abnormal. (Format: Lecture 3 Hours) (Exclusion: BIOL 3991 Genes, Cells, and Disease; BIOL 4991 Genes, Cells, and Disease)

**BIOL 4711 (3.00 CR)**  
**ADVANCED DESIGN AND STATISTICAL ANALYSIS**

**Prereq:** 3 credits from MATH 2311, PSYC 2011, BIOL 2701, GENS 2431; or permission of the Department

This course investigates how to design studies with clear hypotheses, select appropriate statistical methods, and carry out the analyses, applying the techniques to real data sets. It reviews a variety of statistical techniques including advanced ANOVA and regression, techniques for categorical data, resampling methods, MANOVA, and other multivariate techniques. It also considers experimental design issues such as power analysis and pseudoreplication. [Note: Throughout the course, data analyses are conducted using R.] (Format: Lecture 3 Hours, Laboratory 2 Hours)

**BIOL 4903 (3.00 CR)**  
**CURRENT ADVANCES IN BIOLOGY**

**Coreq:** BIOL 4990

A seminar course for Honours students in Biology which will critically evaluate a wide range of topics from the current literature in all branches of biological science. Students will be expected to deliver seminars on topics outside their thesis area and present preliminary thesis results. (Format: Lecture/Seminar 3 Hours)

**BIOL 4950 (6.00 CR)**  
**INDEPENDENT STUDY IN BIOLOGY**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for BIOL 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**BIOL 4951 (3.00 CR)**  
**INDEPENDENT STUDY IN BIOLOGY**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. (Format: Independent Study) [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for BIOL 4950/51 more than once, provided the subject matter differs.]

**BIOL 4990 (6.00 CR)  
HONOURS THESIS****Coreq:** BIOL 4903

The thesis requires a report on one or more laboratory, library or field investigations carried out by arrangement with and under the direction of an appropriate member of the staff. This course is open only to candidates for Honours in Biology in their senior year. A minimum grade of B is required in this course for successful completion of an honours degree. [Note 1: Consent of supervising staff member prior to registration and permission of the Program Advisor is required] (Format: Independent Study/Thesis)

**BIOL 4991 (3.00 CR)  
SPECIAL TOPIC IN BIOLOGY**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for BIOL 4991 more than once, provided the subject matter differs.] (Format: Variable)

**BIOL 5991 (3.00 CR)  
GRADUATE LEVEL TOPIC IN BIOLOGY**

Prereq: Registration in the M.Sc program and permission of the Department Head and course instructor (Format: Variable)

**BIOL 5993 (3.00 CR)  
GRADUATE LEVEL TOPIC IN BIOLOGY**

Prereq: Registration in the M.Sc program and permission of the Department Head and course instructor (Format: Variable)

**CANADIAN PUBLIC POLICY****Interdisciplinary B.A. Program****MAJOR in CANADIAN PUBLIC POLICY is 60 credits earned as follows:**

- 18 from COMM 2101, 2131, 2301, COMP 1631, MATH 1111, 2311
- 27 from ECON 1001 and 1011, 2301, 2311, 3101, 3111, POLS 1001, 2101, 3101, 3111
- 6 from HIST 3431, 3441, 4420, SOCI 3521, ANTH 3851
- 9 from courses at the 3/4000 levels in Canadian Studies, Commerce, Economics, French, Geography and Environment, Political Science, Philosophy, Sociology and Anthropology, chosen in consultation with the Program Advisor

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.



## CANADIAN STUDIES

Canadian Studies seeks to analyse and explain the Canadian experience in all of its dimensions. These include Canada's vast and varied geographical character, its regional distinctions, its history and politics, its cultures and economy, its urban, modern and multicultural realities. An important feature of Canadian Studies is the analysis of Canada's place in the world. Questions about Canada and the world are addressed across departments and disciplines at the university. The Canadian Studies Program approaches these questions by drawing together the analytical strengths and content of individual disciplines in the humanities, the social sciences, and the sciences. The multi-disciplinary and interdisciplinary approaches of Canadian Studies core courses are a distinguishing feature of Canadian Studies.

There are many reasons for taking Canadian Studies. The program's courses provide students with skills and knowledge that graduates find very valuable in their working lives - as teachers in the classroom; as government employees at various levels - municipal, provincial, national and international; as individuals working in the private sector or in business. The multi-disciplinary or interdisciplinary approaches of Canadian Studies core courses provide students the opportunity to develop unique and flexible analytical skills.

Mount Allison's Canadian Studies Program offers courses leading to a Minor, Major, or Honours as well as a range of courses that can be taken as electives or as distribution credits. Students looking for more information about Canadian Studies at Mount Allison may consult the program web page or the Program Advisor.

### Interdisciplinary B.A. Programs

**MINOR in Canadian Studies is 24 credits earned as follows:**

- 6 from CANA 1001, 1011, 1991, INDG 1001
- 15 from CANA 2121, 2201, 2211, 2311, 2431, 2801, 2991, 3111, 3231, 3301, 3401, 3421, 3451, 3821, 3831, 3841, 3991 chosen in consultation with the Program Advisor
- 3 from CANA 4101, 4111, 4201, 4301, 4401, 4611, 4991 chosen in consultation with the Program Advisor

**MAJOR in Canadian Studies is 60 credits earned as follows:**

- 6 from CANA 1001, 1011, 1991
- 6 from CANA 2121, 2201, 2211, 2311, 2431, 2801, 2991
- 9 from CANA 3111, 3231, 3301, 3401, 3421, 3451, 3821, 3831, 3841, 3991
- 6 from CANA 4101, 4111, 4201, 4301, 4401, 4611, 4991
- 9 from English 1/2000 series, ECON 1001, 1011, 1701 FINH 2101, 2111, FREN 1811, MUSC 2011, POLS 1001, HIST 1621, 2411, 2421, GENV 1201, SOCI 1001, ANTH 1011
- 6 from FREN 1811 (if not used in the previous line), any French language course by placement, or any 3000 level course on the literature of French Canada, HIST 3411, 3431 or any Indigenous Language and/or culture course approved by the Program Advisor
- 18 from complementary courses where a significant Canadian Studies component can be demonstrated, chosen in consultation with

the Program Advisor. The following courses are specifically recommended:

- ANTH 3421, 3801, 3821, 3851
- CLAS 3801
- COMM 3271
- DRAM 3301
- ECON 2301, 2311, 3201, 3211, 4501
- ENGL 2801, 3801, 3811, 3821, 3831, 3841, 4801
- FINH 3021, 3031, 3041
- FREN 3761, 3771
- GENV 2101, 3111, 3201, 3211, 3511, 3531, 3801, 4201, 4521, 4821
- HIST 2411, 2421 (if not used in line 5 above), 3401, 3411, 3431 (if not used in line 6 above), 3441, 3461, 3471, 3481, 3491, 3811, 4411, 4420, 4441, 4461
- INLR 4201
- MUSC 3001
- POLS 2101, 2211, 3101, 3111, 3141, 3151, 4121, 4141, 4300
- SOCI 2111, 2211, 3521, 3531, 3541, 3551, 3711, 3721, 4551

**HONOURS in Canadian Studies is 72 credits earned as follows:**

- 60 credits as in the Major, plus
- 3 additional credits from 3/4000 level Canadian Studies
- 3 from CANA 4901
- 6 from CANA 4990

Courses chosen in consultation with the Program Advisor

### CANADIAN STUDIES COURSES

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following courses can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees: CANA 1001, 1011

#### CANA 1001 (3.00 CR) CONTEMPORARY CANADA: AN INTRODUCTION

This course provides an introduction to contemporary Canada as represented by its key social, political, and economic institutions. It examines the nature and character of Canadian institutions, communities, and values. (Format: Lecture/Tutorial 3 Hours) (Distribution: Social World-b) (Exclusion: CANA 2001)

#### CANA 1011 (3.00 CR) REPRESENTING CANADA: AN INTRODUCTION TO CANADIAN CULTURE

This course provides an introduction to Canadian culture and identity. It examines key Canadian symbols and myths and various forms of cultural expression, including film, the arts, literature, and music in relation to Canadian national identity. (Format: Lecture/Tutorial 3 Hours) (Distribution: Arts-a) (Exclusion: CANA 2011)

**CANA 1991 (3.00 CR)**  
**SPECIAL TOPIC IN CANADIAN STUDIES**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for CANA 1991 more than once, provided the subject matter differs.] (Format: Variable)

**CANA 2121 (3.00 CR)**  
**CULTURAL DIVERSITY IN CANADA**

**Prereq:** CANA 1001; CANA 1011; or permission of the Program Director

This course explores plurality and diversity in Canada, from historical developments in demographic trends to multiculturalism and its policy frameworks. It examines current debates about Canadian identity and future developments in diversity in Canada. (Format: Lecture 3 Hours)(Exclusion: CANA 3121)

**CANA 2201 (3.00 CR)**  
**EXPERIENCE THE ARTS**

This course introduces students to critical assessment of culture and arts. Students attend, discuss, and write about Canada-focused (national and local) cultural events such as public lectures, visits to local historic sites, concerts, exhibitions, and plays. (Format: Seminar /Experiential Learning 3 Hours) (Distribution: Arts-a) (Exclusion: UNST 1991 - Experience the Arts)

**CANA 2211 (3.00 CR)**  
**MEDIA AND POPULAR CULTURE IN CANADA**

**Prereq:** 6 credits from CANA 1001, CANA 1011; or permission of the Program Director

This course explores the key institutions and issues relating to media and popular culture in Canada. Topics include: film, television, state institutions like the CBC, state regulation of media, and the connections among media, consumerism, and public life. (Format: Lecture 3 Hours)

**CANA 2311 (3.00 CR)**  
**CANADIAN FOODWAYS: GENDER, FOOD, AND CULTURE IN CANADA**

**Prereq:** 6 credits from CANA 1001, CANA 1011, WGST 1001; or permission of the Program Director

This course explores the interconnections among gender, food, and culture. Topics include: the complex relationships between food production and consumption; food, culture, and national identity; embodiment; food colonialism, food security, and food sovereignty. (Format: Lecture 3 Hours)

**CANA 2431 (3.00 CR)**  
**COMPARATIVE CANADIAN REGIONALISM**

**Prereq:** 6 credits from CANA 1001, 1011; or 6 credits from CANA 2001, 2011; or permission of the Program Director

This course explores regionalism as a key dynamic of Canadian political-economic, geographic, and cultural life. The course pays particular attention to regional diversity in Canada and to the changing character of Canadian regionalism. (Format: Lecture 3 Hours)(Exclusion: CANA 3431)

**CANA 2801 (3.00 CR)**  
**INDIGENOUS CANADA: A SURVEY**

**Prereq:** 3 credits from CANA 1001, CANA 1011; or permission of the Program Director

This course explores the history of Indigenous peoples in Canada with a focus on the processes of colonialism, resistance, resurgence, and survivance. [Note 1: This course is cross-listed as HIST 2801 and may therefore count as 3 credits in either discipline] (Format: Lecture 3 Hours)

**CANA 2991 (3.00 CR)**  
**SPECIAL TOPIC IN CANADIAN STUDIES**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for CANA 2991 more than once, provided the subject matter differs.] (Format: Variable)

**CANA 3111 (3.00 CR)**  
**INDIGENOUS CANADA**

**Prereq:** 6 credits from CANA 1001, 1011; or 6 credits from CANA 2001, 2011; or permission of the Program Director

This course explores Indigenous Canada from an interdisciplinary perspective. Topics include: Indigenous history in Canada, the development of Indigenous arts and culture in Canada, Indigenous philosophy and ethics, and the politics of self-government among various Indigenous communities. (Format: Lecture 3 Hours)(Exclusion: Any version of CANA 3111 previously offered with a different title)

**CANA 3231 (3.00 CR)**  
**RECALLING CANADA: REDRESS AND CULTURAL MEMORY**

**Prereq:** 6 credits from CANA or HIST at the 1000 or 2000 level; or permission of the Program Director

This course examines current case studies that demonstrate how the past is present in contemporary Canada. Topics may include: government apologies and redress, public commemoration, and the invention of national and regional histories. (Format: Seminar 3 Hours)

**CANA 3301 (3.00 CR)****GENDER IN CANADA**

**Prereq:** 6 credits from CANA 1001, 1011, WGST 1001, WGST 2101; or permission of the Program Director

This course provides an interdisciplinary perspective on gender in Canada. It explores how gender experience in the country has been shaped by various factors including interactions with the state and the law, identity politics, region, protests, activism, and the impact of Canadian feminism, Indigenous women, and recent immigrants. (Format: Lecture 3 Hours)(Exclusion: Any version of CANA 3301 previously offered with a different title)

**CANA 3401 (3.00 CR)****CONTEMPORARY CANADIAN ISSUES**

**Prereq:** Second-year standing; 6 credits from Humanities, Social Sciences; or permission of the Program Director

This course explores contemporary Canadian issues in light of the evolution and development of Canadian institutions, belief systems and social relations. (Format: Lecture 3 Hours) (Exclusion: CANA 3400)

**CANA 3421 (3.00 CR)****CANADIAN-AMERICAN RELATIONS**

**Prereq:** 6 credits from CANA 1001, 1011 and 3 credits from CANA at the 2000 level; or permission of the Program Director

This course explores the political, economic, cultural, and social interaction between Canada and the United States. It pays special attention to the demise of the Canada-US 'special relationship', the current status of this relationship, and a comparative perspective of the values animating Canada and the United States as political communities. (Format: Lecture 3 Hours) (Exclusion: CANA 2421)

**CANA 3451 (3.00 CR)****THE CANADIAN LAND**

**Prereq:** 9 credits from CANA at the 1000 or 2000 level; or 3 credits from GENV at the 2000 level or higher; or permission of the Program Director

This course explores land as a central icon of Canada. It looks at how the land has been represented, its role in the economy, distinctions between Indigenous and Settler conceptions of the land, nordicity, conceptions of environment, distinctions between the urban and rural, and contemporary political issues. (Format: Lecture 3 Hours)

**CANA 3821 (3.00 CR)****THE INDIAN ACT: LAW, POLICY, AND CANADIAN FIRST PEOPLES**

**Prereq:** 6 credits from CANA 1001 and 1011 and 3 credits from CANA at the 2000 level; or 6 credits from HIST at the 2000 level; CANA/HIST 2801 recommended; or permission of the Program Director

This course focuses on the origins, evolution, and contemporaneity of Canada's Indian Act and policies. It also focusses on First Nations resistance and survivance and efforts to overturn these colonial acts and policies through time. [Note 1: This course is cross-listed HIST 3821 and may therefore count as 3 credits in either discipline](Format: Lecture 3 hours)

**CANA 3831 (3.00 CR)****INDIGENOUS CANADA: HIST PERSPECTIVE**

**Prereq:** 9 credits from CANA at the 1000 or 2000 level; or

This course focuses on the history of Indigenous people in Canada with particular attention to the debates within Indigenous history surrounding events, peoples, memory, colonialism and de-colonialism, resurgence, survivance, and re-storying. [Note 1: This course is cross-listed as HIST 3831 and may therefore count as 3 credits in either discipline] (Format: Lecture 3 hours)

**CANA 3841 (3.00 CR)****BORDERLANDS**

**Prereq:** 6 credits from CANA or HIST at the 1000 or 2000 level; or permission of the Program Director

This course explores Indigenous peoples' resistance, resurgence, and survivance along and amidst frontiers, borders, and borderlands within North America. [Note 1: This course is cross-listed as HIST 3841 and may therefore count as 3 credits in either discipline.] (Format: Seminar 3 hours)

**CANA 3991 (3.00 CR)****SPECIAL TOPIC IN CANADIAN STUDIES**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for CANA 3991 more than once, provided the subject matter differs.] (Format: Variable)

**CANA 4101 (3.00 CR)****INDIGENOUS CANADA: AVANCED TOPICS**

**Prereq:** Third year standing and six credits from Cana, Hist at 2000 level or permission of the Program Director.

This course focuses on specific topics in transcolonial-border Indigenous history. Topics may include: treaties, borders, state policy, violence, resistance, missionization, and performance set within the theoretical concepts of re-storying and survivance. (Format: Lecture 3 hours)

**CANA 4111 (3.00 CR)****ABORIGINAL POLITICAL AND LEGAL ISSUES**

**Prereq:** 6 credits from CANA 1001, 1011, and at least 3 additional credits in CANA at the 2000 or 3000 level, or permission of the Program Director

This courses explores political and legal issues that are integral to the examination and understanding of Aboriginal rights and relationships with the Settler State. Topics include: the politics of genocide and colonization and de-colonization, self-determination, gender, identity, land claims, court decisions, and international law and borders. (Format: Seminar 3 Hours)

**CANA 4201 (3.00 CR)****CULTURE OF THE MARITIMES**

**Prereq:** 6 credits from CANA 1001, 1011, and at least 3 credits in CANA at the 2000 or 3000 level; or permission of the Program Director

This course explores the history and key elements of Maritime culture. Its focus is on the diversity of Maritime cultural expression. (Format: Seminar 3 Hours)

**CANA 4301 (3.00 CR)****GENDER AND SETTLER COLONIALISM FEMINISM AND GENDER STUDIES**

**Prereq:** WGST 3101 or 3111; or CANA 3301 and 3 additional CANA credits at the 3000 level; or permission of the Program Director

This course focuses on the gendered, racialized, and sexualized dimensions of settler colonialism and Indigenous resurgence. It begins with the recognition that all of our learning takes place on the lands of the Mi'kmaq and Wolastoquyik peoples, and with the acknowledgement that we all have different and specific relationships to this land and these nations. Attending to these relationships and the responsibilities they entail, the central questions this course examines include: How do Indigenous thinkers conceptualize identity, land, and belonging? How do they think and talk about gender, sexuality, and difference? [Note 1: This course is cross-listed as WGST 4301 and may therefore count as 3 credits in either discipline] (Format: Seminar 3 Hours) (Exclusions: WGST 4001 18/WI and 19/WI)

**CANA 4401 (3.00 CR)****CANADA IN WORLD AFFAIRS**

**Prereq:** 6 credits from CANA 1001, 1011; 3 credits in CANA at the 2000 or 3000 level

This course examines Canada's place in world affairs both historically and in the post-global age. It looks at the evolution of Canadian foreign policy, Canadian conceptions of an internationalized self-identity, and key case studies focusing on the situations that challenge Canadian self-conceptions, such as the peacekeeping myth. (Format: Seminar 3 Hours)

**CANA 4611 (3.00 CR)****IMAGINING CANADA**

**Prereq:** CANA 1001; CANA 1011; 6 credits from CANA at the 2000 or 3000 level, or permission of the Program Director

This course provides an in-depth, advanced examination of the ways that various public intellectuals and cultural producers have imagined or narrated Canada. (Format: Seminar 3 Hours) (Exclusion: Any other version of CANA 4611 previously offered with a different title)

**CANA 4901 (3.00 CR)****DIRECTED READINGS IN CANADIAN STUDIES**

**Coreq:** CANA 4990; or permission of the Program Director

This course is required of honours students. It promotes bibliographic and information literacy skills and familiarizes students with the larger-scale organization of secondary literature in Canadian Studies. (Format: Seminar 3 Hours)

**CANA 4950 (6.00 CR)****INDEPENDENT STUDY IN CANADIAN STUDIES**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for CANA 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**CANA 4951 (3.00 CR)****INDEPENDENT STUDY IN CANADIAN STUDIES**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for CANA 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**CANA 4990 (6.00 CR)****HONOURS THESIS**

**Coreq:** CANA 4901; or permission of the Program Director

Supervised by the Advisor and with one or more members of the faculty associated with the Program. The subject must be approved by the Advisor. The candidate will receive instruction in the techniques of research methods and thesis writing. [Note 1: Permission of the Program Advisor] (Format: Thesis)

**CANA 4991 (3.00 CR)****SPECIAL TOPIC IN CANADIAN STUDIES**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for CANA 4991 more than once, provided the subject matter differs.] (Format: Variable)

## CHEMISTRY

Chemistry is the branch of physical science involving the study of the composition of substances, the ways in which their properties are related to their composition, and the interaction of substances to produce new materials. This subject occupies a central place among the sciences, it draws on the facts and theories of physics, and on mathematics for the tools necessary to evaluate and express quantitative chemical information. Chemistry in turn, provides terminology, facts, principles and methods that are essential to many aspects of other sciences. The applications of chemistry in fields such as agriculture, medicine, pharmacology, pharmacy, engineering and oceanography are numerous. Mount Allison's undergraduate chemistry program is fully accredited by the Canadian Society for Chemistry (CSC). The program is designed to provide students with an education in the main branches of the subject, namely, analytical, inorganic, organic, physical and computational chemistry. The broad objectives of the Department are summarized in the following definition of education:

Education is learning to appraise data critically, to try to think up an intellectual framework, to be able to test it, to be able to marshal facts, to be able to write about them, to be able to communicate with people who may - and almost certainly will - have less knowledge of those facts than you have, because they will be asking you questions about them with a view to taking some action. (F. Dainton)

Students interested in pursuing a Major or Minor in Chemistry or Chemistry Honours, should consult the Departmental Website and a faculty member of the Department before completion of registration.

### Disciplinary B.Sc. Programs

#### MINOR in Chemistry is 24 credits earned as follows:

- 6 from CHEM 1001, 1021
- 3 from MATH 1111
- 9 from Chemistry at the 2000 level\*
- 6 from Chemistry at the 3/4000 levels

**Note:** \*Where insufficient Chemistry courses are available at the 2000 level to fulfill this requirement, Chemistry courses at the 3/4000 levels may be substituted. Students cannot count CHEM 2511 towards a Minor.

#### MAJOR in Chemistry is 63 credits earned as follows:

- 6 from CHEM 1001, 1021
- 6 from MATH 1111, 1121
- 3 from MATH 2111, 2121, 2221 or CHEM 3201\*
- 6 from BIOC 1001, 2001
- 6 from PHYS 1051, 1551\*\*
- 12 from CHEM 2111, 2211, 2311, 2411
- 12 from CHEM 2121, 3231, 3321, 3421
- 3 from CHEM 3111, 3161, 3251, 3751, 4951, 4953
- 9 from Chemistry at the 3/4000 level, excluding CHEM 3161, 4951, 4953

**Note:** \*CHEM 3201 can be used as either a required course from MATH or as a 3000 level CHEM course, but not both.

**Note:** \*\*It is recommended that Chemistry Majors take Physics 1551 in their first or second year.

**Note:** Additional 3/4000 level courses are needed to fulfill Calendar regulation 11.3.5

### THE CHEMISTRY HONOURS PROGRAM

Students with a special interest in Chemistry and those who, after obtaining the B.Sc. degree, wish to continue their studies at the post-graduate level, should consider following the Chemistry Honours program. The courses required for the B.Sc. Chemistry Honours degree are all listed below. The required chemistry credits are ones that provide for study of the main branches of Chemistry in some depth. The required nine credits from Mathematics and the six credits from Physics give minimum background essential for work in Chemistry. Honours students are given a special opportunity to participate in chemical research with faculty members in the Thesis (CHEM 4990) course. This research is normally carried out in the summer months following the third year.

#### HONOURS in Chemistry is 81 credits earned as follows:

- 51 credits as in first 7 lines of Major, plus
- 21 from Chemistry at the 3/4000 level, chosen in consultation with the Program Advisor
- 3 from CHEM 4903
- 6 from CHEM 4990

### CHEMISTRY LABORATORY WORK

Most Chemistry courses in the first three years have laboratory classes of about three hours duration each week as indicated in the course description.

### GRADUATE STUDIES IN CHEMISTRY

The Department of Chemistry & Biochemistry offers a program of research courses leading to the Master of Science degree. The research interests in the Department are varied and further information can be obtained from the Department Head or from individual faculty members. The requirements for the M.Sc. degree are given in Section 11.4. Individual programs are arranged, depending on the student's background and interests.

### CHEMISTRY COURSES

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following courses are subject to an instructional supply fee - CHEM 1001, 1021, 2111, 2121, 2211, 2311, 2411, 3111, 3231, 3321, 3331, 3421.

**Note:** The following course can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees: CHEM 1001

**CHEM 1001 (3.00 CR)**  
**INTRODUCTORY CHEMISTRY I**

This course presents chemical concepts that are required for a fundamental understanding of the physical and life sciences. It explores the qualitative aspects of matter with such topics as: atomic structure, the periodic table and periodic trends; Lewis, valence bond and molecular orbital bonding models; bond polarity and intermolecular interactions; nomenclature of organic compounds, functional groups, and common organic reactions; and characterization of chemical compounds using spectroscopic methods. It briefly reviews nomenclature of inorganic compounds, dimensional analysis, chemical equations, stoichiometry, empirical and molecular formula, percent mass, and other foundational concepts. (Format: Lecture 3 Hours, Laboratory 3 Hours, regular tutorials) (Distribution: Natural Science-c)

**CHEM 1021 (3.00 CR)**  
**INTRODUCTORY CHEMISTRY II**

**Prereq:** CHEM 1001; or permission of the Department

This course builds on CHEM 1001 and presents chemical concepts that are required for a fundamental understanding of the physical and life sciences. It explores the quantitative aspects of matter and topics such as: gases, the laws of thermodynamics; Gibbs energy; chemical reaction rates and mechanism; chemical equilibria; qualitative and quantitative descriptions of acid-base chemistry, redox reactions, and electrochemistry. (Format: Lecture 3 Hours, Laboratory 3 Hours, regular tutorials)

**CHEM 1991 (3.00 CR)**  
**SPECIAL TOPIC IN CHEMISTRY**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for CHEM 1991 more than once, provided the subject matter differs.] (Format: Variable)

**CHEM 2111 (3.00 CR)**  
**ORGANIC CHEMISTRY I**

**Prereq:** CHEM 1021; or permission of the Department

This course provides an in-depth look at the structures, reactivity, and synthesis of important functional groups in organic chemistry, starting with the reactions of alkenes. It emphasizes resonance, reaction mechanisms (arrow pushing), conformational analysis, stereochemistry, and organic synthesis, and introduces IR and proton NMR spectroscopy and mass spectrometry. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**CHEM 2121 (3.00 CR)**  
**ORGANIC CHEMISTRY II**

**Prereq:** CHEM 2111; or permission of the Department

This course further develops the concepts taught in CHEM 2111. New topics include <sup>13</sup>C NMR, aromatic chemistry, reactions of amines, chemistry of the carbonyl group, carboxylic acid derivatives, dienes/polyenes, and UV spectroscopy. It emphasizes mechanisms, synthesis, and the biological equivalents of certain organic reactions such as NaBH<sub>4</sub>/NADH and phosphate esters. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**CHEM 2211 (3.00 CR)**  
**INTRODUCTORY PHYSICAL CHEMISTRY**

**Prereq:** CHEM 1021; MATH 1121; PHYS 1051 recommended; or permission of the Department

This course introduces the fundamental principles of thermodynamics, including the laws of thermodynamics and their applications to ideal systems, mixtures, and chemical equilibria. It also examines the historical development of quantum theory and the postulates of quantum mechanics and how they apply to simple physical systems, such as particle in a box and harmonic oscillator. (Format: Lecture 3 Hours, Laboratory 3 Hours, Tutorials) (Exclusion: Any version of CHEM 2211 previously offered with a different title)

**CHEM 2311 (3.00 CR)**  
**INORGANIC CHEMISTRY I: CO-ORDINATION CHEMISTRY**

**Prereq:** CHEM 1021; or permission of the Department

Lewis acid-base chemistry and applications to transition metals will be discussed. Concepts covered will include structure and bonding, ligand field theory, magnetism and electronics. (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: CHEM 3311)

**CHEM 2411 (3.00 CR)**  
**ANALYTICAL CHEMISTRY I**

**Prereq:** CHEM 1021; MATH 1111 recommended; or permission of the Department

This course covers the following topics with an emphasis on problem solving: the treatment of errors and statistics of measurements; aqueous solutions, complex equilibria (including acid/base and buffer systems); electrochemistry theory; redox, electrode potentials (ion selective electrodes), and electrogravimetry. (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: CHEM 3411)

**CHEM 2511 (3.00 CR)**  
**INTRODUCTION TO ENVIRONMENTAL CHEMISTRY**

**Prereq:** CHEM 1021; or permission of the Department

This course introduces environmental chemistry to students in a life sciences program. The subject matter primarily deals with the chemistry of the atmosphere and hydrosphere at an introductory level, with an emphasis on problem solving skills. [Note 1: CHEM 2511 credit will not fulfill any Chemistry requirements for a Minor, Major or Honours degree in Chemistry.] (Format: Lecture 3 Hours, Tutorial 1 Hour) (Exclusion: Any version of CHEM 2511 previously offered with a different title)

**CHEM 2991 (3.00 CR)**  
**SPECIAL TOPIC IN CHEMISTRY**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for CHEM 2991 more than once, provided the subject matter differs.] (Format: Variable)

**CHEM 3111 (3.00 CR)****INTERMEDIATE ORGANIC CHEMISTRY**

**Prereq:** CHEM 2121; or permission of the Department

This course introduces common spectroscopic techniques in the context of structure elucidation. Frontier Molecular Orbital Theory, and the application of synthetic reactions to total synthesis. (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: Any version of CHEM 3111 previously offered with a different title)

**CHEM 3131 (3.00 CR)****ORGANIC CHEMISTRY: BIOORGANIC**

**Prereq:** CHEM 2121; or permission of the Department

This course presents the principles of organic chemistry as they apply to biochemical problems. Topics covered include enzymic reaction mechanisms, enzyme cofactors, peptide and nucleic acid synthesis, and enzymes in organic synthesis. [Note 1: This course is cross-listed with BIOC 3131 and may therefore count as three credits in either discipline. Chemistry students should register for CHEM 3131.] (Format: Lecture 3 Hours)

**CHEM 3161 (3.00 CR)****EXPERIENTIAL SYNTHETIC CHEMISTRY**

**Prereq:** CHEM 2121; CHEM 2311; CHEM 3321; or permission of the Department

This course examines the planning and conducting of multi-step reaction sequences involving a range of synthetic organic and inorganic reactions and techniques, including those required for the manipulation of air-sensitive materials. It emphasizes purification of synthesized compounds and their characterization by a variety of spectroscopic and physical methods. (Format: Integrated Lecture and Laboratory, 6 Hours)

**CHEM 3201 (3.00 CR)****METHODS OF MATHEMATICAL CHEM**

**Prereq or Coreq:** CHEM 2211; or permission of the Department

This course introduces mathematical methods that are frequently used in both theoretical and experimental treatments in chemistry and focuses on applications to chemical problems. Topics include probability theory and distributions, multi-variable calculus, complex variables, vectors, differential equations, operators, matrix algebra, vector spaces and eigenvalue problems. (Format: Lecture 3 Hours)

**CHEM 3231 (3.00 CR)****ADVANCED PHYSICAL CHEMISTRY**

**Prereq:** CHEM 2211; or 6 credits from PHYS 3701, PHYS 3821; or permission of the Department

This course examines physical and chemical applications of kinetics, including those related to reaction mechanisms and dynamics. Specific topics include: experimental methods in kinetics; introduction to quantum mechanics needed to understand chemical kinetics; the potential energy surface (PES) for a chemical reaction and the effects of different features of the PES on the rate of chemical reactions; the effects of zero point energy and quantum tunneling on reaction rates. [Note 1: This course is cross-listed with PHYS 3231 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: CHEM 3221; any version of CHEM 3231 previously offered with a different title)

**CHEM 3251 (3.00 CR)****PHYSICAL CHEMISTRY: SPECTROSCOPY**

**Prereq:** PHYS 3821 (PHYS 3821 may be taken as a co-requisite); or permission of the Department

This course discusses the application of quantum chemistry in spectroscopy and surveys the principles of electronic, vibrational, rotational, and magnetic resonance spectroscopy. (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: Any version of CHEM 3251 previously offered with a different title)

**CHEM 3261 (3.00 CR)****PHYSICAL CHEM: SURFACE & INTERFACIAL**

**Prereq:** CHEM 2211; or permission of the Department

This course investigates a broad range of fundamental topics in surface and interface science including: self-assembly, surface chemistry and monolayers, colloidal systems, liquid crystals, and modern experimental techniques. (Format: Lecture 3 Hours) (Exclusion: CHEM 3991 Surface and Interfacial Chemistry; CHEM 4261)

**CHEM 3271 (3.00 CR)****NANOSCIENCE AND NANOTECHNOLOGY**

**Prereq:** PHYS 1051; 3 credits from CHEM 2211, CHEM 2411; or permission of the Department

This course examines the changes in physical and chemical properties that arise when systems are confined to nanoscale dimensions and discusses applications in electronics, photonics, and biotechnology. Topics may include: quantum confinement, scanning probe techniques, localized surface plasmon resonance, self-assembled monolayers, nanoparticle synthesis, and biological applications. (Format: Lecture 3 Hours) (Exclusion: CHEM 3991-Nanoscience and Nanotechnology -14/WI, 16/WI)

**CHEM 3321 (3.00 CR)****INORGANIC CHEMISTRY II: MAIN GROUP ELEMENTS**

**Prereq:** CHEM 1021; or permission of the Department

This course examines structure and bonding in main group compounds and discusses ionic and covalent bonding with respect to Lewis, valence shell electron pair repulsion, valence bond and molecular orbital theories as well as periodic trends and a survey of the properties and reactions of the elements of groups 1, 2 and 13 - 18. It presents an overview of state of the art spectroscopic techniques and their applications. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**CHEM 3421 (3.00 CR)****ANALYTICAL CHEMISTRY II: INSTRUMENTAL METHODS OF ANALYSIS**

**Prereq:** PHYS 1551; 3 credits from CHEM 2411, 3411; or permission of the Department

This course introduces the theoretical basis, scope and limitations of various instrumental methods of analysis, in the areas of Spectroscopy and Chromatography. Methods include GC/MS and HPLC for organic compounds, Atomic Absorption Spectroscopy (AAS) for metals and UV/VIS for both organic and inorganic compounds. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**CHEM 3751 (3.00 CR)****ENERGY PRODUCTION AND THE ENVIRONMENT**

**Prereq:** PHYS 1551; CHEM 1021; or permission of the Department

This course examines different aspects of energy harvesting, storage, and transmission with particular emphasis on the environmental impacts, sustainability, and development of renewable energy resources. It also introduces modern technologies based on the development of novel materials. Specific technologies and topics may include: wind power, photovoltaic generation, solar energy, nuclear fission, and fusion, hydroelectric, combustion based fuel generation, tidal energy and fuel cells. [Note 1: This course is cross-listed with PHYS 3751 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: Any version of PHYS 3751 previously offered with a different title)

**CHEM 3991 (3.00 CR)****SPECIAL TOPIC IN CHEMISTRY**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for CHEM 3991 more than once, provided the subject matter differs.] (Format: Variable)

**CHEM 4131 (3.00 CR)****ADVANCED ORGANIC CHEMISTRY**

**Prereq:** CHEM 3111; or permission of the Department

This course investigates the synthesis of complex organic molecules. Topics include: conformational analysis, stereoselectivity, transition metal mediated reactions, radical reactions, mechanisms, and synthetic strategy. (Format: Lecture 3 Hours) (Exclusion: CHEM 4101; any version of CHEM 4131 previously offered with a different title)

**CHEM 4141 (3.00 CR)****PHYSICAL ORGANIC CHEMISTRY**

**Prereq:** CHEM 3111; CHEM 3231; or permission of the Department

This course examines the principles of bonding, structure, and mechanisms in organic chemistry. Topics include: models of bonding, acid/base catalysis, linear free-energy relationships, dynamic NMR, concerted reactions and orbital symmetry, transition-state theory and intramolecular dynamics, thermodynamics, and molecular motors. (Format: Lecture 3 Hours) (Exclusion: CHEM 4111; any version of CHEM 4141 previously offered with a different title)

**CHEM 4211 (3.00 CR)****PHYSICAL CHEMISTRY: STATISTICAL THERMODYNAMICS**

**Prereq:** PHYS 3701, 3821; or permission of the Department

This course will address the connection between the microscopic and macroscopic world by providing an introduction to the probabilistic nature of physical chemistry. Partition functions will be calculated from the various contributions to the total energy for simplified models of actual systems. Thermodynamic quantities will then be derived in terms of partition functions. Applications relevant to the interests of students will be discussed with an emphasis on recent literature. (Format: Lecture 3 Hours, Major Term Project) (Exclusion: CHEM 4201)

**CHEM 4241 (3.00 CR)****PHYSICAL CHEMISTRY: COMPUTATIONAL**

**Prereq:** 3 credits from CHEM 3231, PHYS 3821; or permission of the Department

This course focuses on a basic knowledge of the methods currently used in computational chemistry. It addresses approximations involved in the application of quantum mechanics to chemical systems, and how these approximations can be systematically improved, and considers practical aspects of computational chemistry programs. (Format: Lecture 3 Hours, Laboratory 1.5 Hours)

**CHEM 4331 (3.00 CR)****INORGANIC CHEMISTRY: ORGANOMETALLICS**

**Prereq:** CHEM 2121; CHEM 3321; or permission of the Department

This course examines the structure, bonding, and reactivity of organotransition metal complexes. Topics include: the 18-electron rule, the isolobal analogy, catalysis, and the role metals play in organic synthesis. (Format: Lecture 3 Hours) (Exclusion: CHEM 3331)

**CHEM 4341 (3.00 CR)****INORGANIC CHEMISTRY: PHYSICAL ASPECTS**

**Prereq:** CHEM 2311; CHEM 3321; or permission of the Department

This course investigates applications of group theory in inorganic chemistry for molecular bonding, reaction mechanisms, and IR and Raman spectroscopic transformations for small molecules and ions. It explores the interpretation of multinuclear NMR, EPR, IR and Raman spectra and discusses the fundamental aspects of X-ray crystallography. (Format: Lecture 3 Hours) (Exclusion: CHEM 4311)

**CHEM 4351 (3.00 CR)****INORGANIC CHEMISTRY: BIOINORGANIC**

**Prereq:** CHEM 2311; CHEM 3321; or permission of the Department

This course examines the roles metals play in biochemical systems, and includes an overview of bioinorganic chemistry and a discussion of metals in medicine. [Note 1: This course is cross-listed with BIOC 4351 and may therefore count as three credits in either discipline. Honours Chemistry students should register for CHEM 4351.] (Format: Lecture 3 Hours)

**CHEM 4361 (3.00 CR)****INORGANIC CHEMISTRY: STRUCTURE AND BONDING IN MAIN GROUP CHEMISTRY**

**Prereq:** CHEM 2311; CHEM 3321; or permission of the Department

This course explores modern approaches to describing bonding in main group compounds with novel and unusual structures. Classes of compounds discussed include electron-deficient clusters, inorganic rings and polymers, and low coordinate main group centres. It also considers synthetic approaches, spectroscopic analysis, and industrial applications of these materials (Format: Lecture 3 Hours) (Exclusion: CHEM 3361)



**CHEM 4521 (3.00 CR)****ENVIRONMENTAL CHEMISTRY**

**Prereq:** Third-year standing; CHEM 2111; 3 credits from CHEM 2411, 3421; or permission of the Department

This course investigates chemical aspects of the environment and draws upon physical, organic, inorganic and analytical chemistry. It explores the natural chemical compositions of and anthropogenic effects on air, water and soil. Topics include ozone chemistry, smog, acid rain, global climate, DOM, metals, colloids, pE/pH, soil chemistry and wastes. (Format: Lecture 3 Hours, Tutorials 1.5 Hours)

**CHEM 4831 (3.00 CR)****ADVANCED QUANTUM MECHANICS**

**Prereq:** CHEM 3231; or 6 credits from PHYS 3821, MATH 2221; or permission of the Department

This course extends the study of principles of quantum mechanics, comparing properties of continuous and discrete representations. It also develops time-independent perturbation theory for first order, second order, and degenerate cases and treats small perturbations through direct diagonalization of large matrices. This course examines variational principle, central force problems, elements of scattering theory, and the addition of quantized angular momenta. The course concludes with applications of quantum mechanics in molecules, aspects of relativistic quantum mechanics, time dependence in quantum and quantum statistics. [Note 1: This course is cross-listed with PHYS 4831 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours) (Exclusion: Any version of PHYS 4831 previously offered with a different title)

**CHEM 4903 (3.00 CR)****CURRENT ADVANCES IN CHEMISTRY**

**Coreq:** CHEM 4990

This is a course for Honours students in Chemistry which critically evaluates a wide range of topics from the current literature in all branches of Chemistry. Students are expected to deliver seminars on topics outside of their thesis area and to present preliminary thesis results. (Format: Seminar 3 Hours)

**CHEM 4950 (6.00 CR)****INDEPENDENT STUDY IN CHEMISTRY**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for CHEM 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**CHEM 4951 (3.00 CR)****INDEPENDENT STUDY IN CHEMISTRY**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for CHEM 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**CHEM 4990 (6.00 CR)****HONOURS THESIS**

**Coreq:** CHEM 4903

This will involve an extensive experimental or theoretical study culminating in the writing of a thesis. The research will be conducted under the supervision of a faculty member and will usually be carried out during the summer and the following year. [Note 1: Permission of the Department is required.] (Format: Independent Study/Thesis)

**CHEM 4991 (3.00 CR)****SPECIAL TOPIC IN CHEMISTRY**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for CHEM 4991 more than once, provided the subject matter differs.] (Format: Variable)

**CHEM 5991 (3.00 CR)****GRADUATE LEVEL TOPIC IN CHEMISTRY**

**Prereq:** Registration in the M.Sc program and permission of the Department Head and course instructor (Format: Variable)

**CHEM 5993 (3.00 CR)****GRADUATE LEVEL TOPIC IN BIOLOGY**

**Prereq:** Registration in the M.Sc program and permission of the Department Head and course instructor (Format: Variable)

## CLASSICS

Classical Studies is concerned primarily with the cultures of Greece and Rome and their contributions to Western civilization. It is unique among modern academic disciplines in the breadth of its approach to its subject. Classics is a field in which the specialist must be simultaneously linguist, literary critic, anthropologist, sociologist, and historian, not only of politics, but also of religion and art.

The cultures of Greece and Rome are fascinating and important in themselves, but seen in the context of their legacy the very special value that we attach to them comes to light. For many elements of our own culture - its language and literature, its social and political patterns, and its ideals - are deeply rooted in the experience and achievement of Greece and Rome.

The Department of Classics at Mount Allison offers the opportunity to study these ancient cultures through courses in history, mythology, art, archaeology, language, and literature. The history and literature of Greece and Rome can be approached either in the original languages or through courses using English translation. The study of ancient literature in translation makes it possible to gain an acquaintance with the thought and literary art of antiquity without studying Greek and Latin. But those deeply interested in the subject should bear in mind the importance of the languages themselves; the direct experience of the ancients through study of Greek and Latin, in order to be fruitful, should begin as early as possible in the university career.

The Humanities 1600 series is intended to provide an introduction to Humanities disciplines. These three-credit courses offered by the participating disciplines of Classics, History, Philosophy and Religious Studies are designed to acquaint beginning students with the methodologies typical of these disciplines and to familiarize them with the approaches taken, as well as the sorts of themes pursued and questions raised in those disciplines.

### Disciplinary B.A. Programs

**MINOR in Classical Studies is 24 credits earned as follows:**

- 18 from Classics, Latin, or Greek; or PHIL 1601
  - 6 from Classics, Latin, or Greek at the 3/4000 level
- Students may choose a minor program with an emphasis on Ancient History, Classical Literature or Art and Archaeology

**MINOR in Greek is 24 credits earned as follows:**

- 18 from GREK 1001, 1101, 2001, 2101, and Greek at the 3000 level
- 6 from Greek, Latin, or Classics

**MINOR in Latin is 24 credits earned as follows:**

- 18 from LATI 1001, 1101, 2001, 2101, and Latin at the 3000 level
- 6 from Greek, Latin, or Classics

**MAJOR in Classical Studies is 60 credits earned as follows:**

- 6 from either LATI 1001, 1101, GREK 1001, 1101; or 6 from from the Humanities 1600 series.

- 36 from Classics, Greek, Latin, of which 24 must be from the 3/4000 level, and may include PHIL 3000, PHIL 3011
- 18 from complementary courses in Arts and Letters and Humanities (or others), chosen in consultation with the Program Advisor

**HONOURS in Classical Studies is 72 credits earned as follows:**

- 12 from LATI 1001, 1101, GREK 1001, 1101
- 6 from LATI 2001, 2101, GREK 2001, 2101
- 6 from Greek/Latin at the 3000/4000 level OR CLAS 4950/4951
- 48 from Classics/Greek/Latin, of which 33 must be at the 3/4000 level

### CLASSICAL STUDIES COURSES

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following courses can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees: CLAS 1631\*, 1641, 1651, 2021\*, 2501; GREK 1001; LATI 1001 \*CLAS/HIST cross-listed courses (CLAS/HIST 1631 and 2021) may not be used for distribution in combination with other Classics or History courses.

#### CLAS 1631 (3.00 CR)

#### GREECE AND ROME: THE FOUNDATIONS OF WESTERN CIVILIZATION

This course surveys the political and social history of ancient Greece and Rome with a focus on the themes of Law, Politics, War, and Society. It pays particular attention to Athens in the fifth and fourth centuries B.C.E. and to Rome under Caesar Augustus. [Note 1: This course is cross-listed with HIST 1631 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours)(Distribution: Humanities-b)

#### CLAS 1651 (3.00 CR)

#### CLASSICAL MYTHOLOGY: GODS, GODDESSES, AND THE CREATION OF ORDER

This course introduces the gods and goddesses of classical myth in the literature, art, and religion of ancient Greece and Rome. It examines cosmogonies and divine myths in order to shed light on the views held by the Greeks and Romans about the nature of the relationship between mortal and immortal. (Format: Lecture 3 Hours) (Distribution: Humanities-a)

**CLAS 1991 (3.00 CR)**  
**SPECIAL TOPIC IN CLASSICS**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for CLAS 1991 more than once, provided the subject matter differs.] (Format: Variable)

**CLAS 2021 (3.00 CR)**  
**ALEXANDER THE GREAT AND THE HELLENISTIC WORLD**

This course examines the career of Alexander the Great and the Hellenistic era that followed his conquest of the eastern Mediterranean. The main themes include the goals of Alexander, the new political climate of kingship and patronage that he helped create, the interaction of the Greeks with the civilizations of Egypt and the East, and the integration of new cultural ideas into Greek society. [Note 1: This course is cross-listed with HIST 2021 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours)(Distribution: Humanities-b)(Exclusion: CLAS/HIST 3011)

**CLAS 2051 (3.00 CR)**  
**WOMEN IN ANTIQUITY**

Using written and material evidence, this course will explore the economic, social and political roles of women in the societies of ancient Greece and Rome, as well as the development of the Western idea of the female in antiquity. Secondarily, it will introduce and explore the social theories commonly applied to the study of gender in history. [Note 1: This course is cross-listed with HIST 2051 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours)

**CLAS 2411 (3.00 CR)**  
**HERO'S QUEST: GREEK AND ROMAN EPIC POETRY**

This course presents the canonical works of the Greek and Roman Epic traditions: the Trojan war and the rage of Achilles, the wanderings of Odysseus, Jason's quest for the Golden Fleece, and Aeneas' search for a Roman homeland. Students read the original authors in English translation: Homer, Virgil, and Apollonius of Rhodes. The course also introduces key analytical skills necessary for research in the humanities, with a special focus on critical close reading, effective argumentation, and citation of primary sources. (Format: Lecture 3 Hours)

**CLAS 2501 (3.00 CR)**  
**INTRODUCTION TO ARCHAEOLOGY**

This course introduces the methods, basic techniques, and theory of archaeology and excavation. It uses examples of both past and present archaeological research done in the Old and New Worlds to illustrate the topics under discussion. (Format: Lecture 3 Hours) (Distribution: Humanities-b)

**CLAS 2521 (3.00 CR)**  
**THE ARCHAEOLOGY OF DAILY LIFE IN THE GREEK AND ROMAN WORLD**

An examination of the evidence used by archaeologists to recreate the social history of ancient Greece and Rome. The course will consider how archaeology can shed light on such topics as the lives of men, women, and children; the home; government; the economy; the army; and entertainment. (Format: Lecture 3 Hours)

**CLAS 2531 (3.00 CR)**  
**THE ARCHAEOLOGY OF RELIGION IN THE GREEK AND ROMAN WORLD**

An examination of the evidence used by archaeologists to recreate the religions of the ancient Greeks and Romans. The course will consider how archaeology reveals ancient views and practices involved in the worship of the Olympian Gods; the religions of Egypt and the Near East; Royal and Emperor cults; Mithraism and mystery cults; Judaism; and early Christianity. (Format: Lecture 3 Hours)

**CLAS 2991 (3.00 CR)**  
**SPECIAL TOPIC IN CLASSICS**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for CLAS 2991 more than once, provided the subject matter differs.] (Format: Variable)

**CLAS 3001 (3.00 CR)**  
**DEMOCRACY AND IMPERIALISM IN CLASSICAL GREECE**  
**Prereq:** Second-year standing; 3 credits from CLAS, HIST at the 1/2000 level; or permission of the Department

An examination of archaic and classical Greek history and civilization from the emergence of the polis to the fall of the Athenian empire. Main themes include the development of political institutions, warfare, and gender relations. Emphasis is placed on historical methods and the interpretation of ancient evidence. [Note 1: This course is cross-listed with HIST 3001 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours)

**CLAS 3021 (3.00 CR)**  
**CONQUEST AND EXPANSION: THE RISE AND FALL OF THE ROMAN REPUBLIC**  
**Prereq:** Second-year standing; 3 credits from CLAS, HIST at the 1/2000 level; or permission of the Department

An examination of the development of Rome from a small city-state into the leading power in the Mediterranean. Main themes include the conflict between Rome and Carthage, the conquest of the Hellenistic East, and the political and social changes in Roman society. There will be an emphasis on the analysis and interpretation of primary sources in translation. [Note 1: This course is cross-listed with HIST 3021 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours)

**CLAS 3031 (3.00 CR)****THE ROMAN EMPIRE: CENTRE AND PERIPHERY**

**Prereq:** Second-year standing; 3 credits from CLAS, HIST at the 1/2000 level; or permission of the Department

An examination of the history of imperial Rome from the age of Augustus to that of Constantine. Main themes include the imperial form of government, the Roman army, urban development and its impact on society, and the conflicts between Romans and other cultures. There will be an emphasis on the analysis and interpretation of primary sources in translation. [Note 1: This course is cross-listed with HIST 3031 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours)

**CLAS 3051 (3.00 CR)****HEALTH AND MEDICINE IN THE ANCIENT WORLD**

**Prereq:** Second-year standing; 3 credits from CLAS, HIST, PHIL; or permission of the Department

Employing both material and literary evidence, this course surveys the conditions of life and common ailments and treatments of the inhabitants of the Greek and Roman world from ca. 1000 B.C.E. to ca. 500 C.E.. It also examines the origins of Western medicine in Greek and Roman science, alongside its alternatives, such as magic. [Note 1: This course is cross-listed with HIST 3051 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours)

**CLAS 3201 (3.00 CR)****GREEK TRAGEDY**

**Prereq:** Second-year standing; 3 credits from CLAS, HIST at the 1/2000 level; or permission of the Department

A study of Greek tragic drama as it developed in Athens of the fifth century B.C.E. The course will examine (in translation) the main surviving plays of Aeschylus, Sophocles, and Euripides. (Format: Lecture 3 Hours)

**CLAS 3211 (3.00 CR)****GREEK AND ROMAN COMEDY**

**Prereq:** Second-year standing; 3 credits from CLAS, HIST at the 1/2000 level; or permission of the Department

A study of Greek and Roman comic drama (in translation) as represented by the work of Aristophanes, Menander, Plautus, and Terence. (Format: Lecture 2 Hours)

**CLAS 3401 (3.00 CR)****THE LYRIC POETRY OF GREECE AND ROME**

**Prereq:** Second-year standing; 3 credits from CLAS, HIST at the 1/2000 level; or permission of the Department

A study of Greek and Roman poetry that expresses universal feelings of love and fear, celebration and personal aspiration. The course will examine the themes and forms of lyric poetry, as well as the role of the poet in society. The poems of Sappho, Archilochus, Pindar, Catullus, Propertius, Ovid, and others will be read in English translation. (Format: Lecture 3 Hours)

**CLAS 3501 (3.00 CR)****ARCHAEOLOGICAL FIELD COURSE**

This course involves participation in an archaeological field project, through which students gain experience in archaeological methods such as site survey, supervised excavation, recording and interpretation of evidence, and the processing of finds. The field location varies according to the project. [Note 1: Permission of the Department is required. Note 2: This course is only available to students during the Spring/Summer term. Enrollment is limited and students should be aware of the additional costs of travel and participation fees.] (Format: Field Course) (Exclusion: ANTH 3321 if taken as archaeological field schools in which credit was received for excavation of material remains)

**CLAS 3511 (3.00 CR)****LABORATORY METHODS IN CLASSICAL ARCHAEOLOGY**

**Coreq:** CLAS 3501

This course introduces students to the laboratory methods used by Classical archaeologists in the study of materials recovered from Greek and Roman sites. The field location and nature of the remains studied vary according to the project. [Note 1: Permission of the Department is required. Note 2: This course is only available to students during the Spring/Summer term. Enrollment is limited and students should be aware of the additional costs of travel and participation fees.] (Format: Field Course) (Exclusion: ANTH 3321 if taken as archaeological field schools in which credit was received for laboratory analysis of material remains.)

**CLAS 3621 (3.00 CR)****THE ARCHAEOLOGY OF GREEK COLONIZATION OF SOUTHERN ITALY**

**Prereq:** Second-year standing; 3 credits from CLAS, FINH, HIST at the 1/2000 level; or permission of the Department

This course surveys the art and archaeology of Magna Graecia and Sicily, the areas of Southern Italy colonized by the Greeks between the 8th and 3rd centuries BC. The course begins with an overview of the Italian cultures living in Southern Italy and Sicily during the Late Bronze Age and the Iron Age, and their interaction with contemporary Greek cultures (e.g., Mycenaean). Most of the course focuses upon the period between the mid-8th century (when Greek colonization started) and the late 3rd century BC (when Rome colonized or otherwise dominated the region). It examines urban planning, architecture (private and public), sculpture, painting, and minor arts. It uses a broad contextual approach, locating archaeological evidence within its historical, political, economic, and cultural context, and pays special attention to concepts such as colonization, cultural interaction, and acculturation, as well as to the differences and similarities between Greek and Roman colonization, and between ancient Greek and modern colonization. [Note 1: This course may count as 3 credits in Art History.] (Format: Lecture 3 Hours) (Exclusion: 17/WI CLAS 3991 The Greeks in Southern Italy)

**CLAS 3631 (3.00 CR)****GREEK ART AND ARCHAEOLOGY**

**Prereq:** Second-year standing; 3 credits from CLAS, FINH, HIST at the 1/2000 level; or permission of the Department

This course introduces the art of the ancient Greek world - urban planning, architecture (private and public), sculpture, painting, minor arts - from the Bronze Age to the Hellenistic period. It engages the analyzed monuments and artifacts within the political, economic, religious, intellectual, and social context in which they were created. It uses this contextual approach as a framework for a more comprehensive understanding of art and artistic movements in their diachronic development. It considers other themes such as the way we experience ancient Greek culture today, and questions about archaeological investigative practice, the antiquities trade, and cultural heritage. [Note 1: This course may count as 3 credits in Art History.] (Format: Lecture 3 Hours) (Exclusions: CLAS 3601; CLAS 3611)

**CLAS 3721 (3.00 CR)****ART AND ARCHAEOLOGY OF POMPEII**

**Prereq:** Second-year standing; 3 credits from CLAS, FINH, HIST at the 1/2000 level; or permission of the Department

This course closely examines the archaeological remains from the city of Pompeii in the Bay of Naples: its road system, sewers, public markets, cult places, burial monuments, brothels, bathhouses, political buildings, and houses and residential areas. It pays special attention to the occupation phases of the city before the foundation of the Roman colony in 80 BC, and the impact that the Roman conquest of Pompeii had on its architectural and artistic forms. It also explores the 'hidden history' of Pompeii as a means to raise awareness about the role of material culture in giving voice to cultures and communities that have not left written sources to us. (Format: Lecture 3 Hours)

**CLAS 3731 (3.00 CR)****ROMAN ART AND ARCHAEOLOGY**

**Prereq:** Second-year standing; 3 credits from CLAS, FINH, HIST at the 1/2000 level; or permission of the Department

This course introduces the artistic, architectural, and archaeological monuments of the Roman world from the eighth century BC to the fifth century AD. It traces Roman art and architecture from its early origins under Etruscan influence through to the periods of the Roman Republic and Principate. It engages monuments and artifacts within their political, economic, religious, intellectual, and social context. This approach provides a framework for a more comprehensive understanding of art and artistic movements in their diachronic development. (Format: Lecture 3 Hours) (Exclusions: CLAS 3701, CLAS 3711)

**CLAS 3801 (3.00 CR)****DIGITAL METHODS IN THE HUMANITIES**

**Prereq:** Second-year standing, any second-year course in Arts

This course introduces the tools and methods of Digital Humanities research. It surveys recent computational work in a variety of humanities disciplines, focusing critical attention on the particular modes of thought, biases, strengths, and limitations that characterize the Digital Humanities. The course simultaneously provides hands-on instruction in basic practices for digital research. It assumes no prior computing expertise but does expect that students have some experience with research in their own field. (Format: integrated lecture and laboratory 3 Hours) (Exclusion: CLAS 3991- Digital Methods in the Humanities)

**CLAS 3991 (3.00 CR)****SPECIAL TOPIC IN CLASSICS**

**Prereq:** second-year standing; 3 Credits from CLAS, HIST, LATI, GREK at the 1/2000 level

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for CLAS 3991 more than once, provided the subject matter differs.] (Format: Variable)

**CLAS 4950 (6.00 CR)****INDEPENDENT STUDY IN CLASSICS**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for CLAS 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**CLAS 4951 (3.00 CR)****INDEPENDENT STUDY IN CLASSICS**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for CLAS 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**CLAS 4991 (3.00 CR)****SPECIAL TOPIC IN CLASSICS**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for CLAS 4991 more than once, provided the subject matter differs.] (Format: Variable)

## GREEK COURSES

### GREK 1001 (3.00 CR) INTRODUCTORY ANCIENT GREEK I

This course introduces the grammar and vocabulary of ancient Greek for students with no previous knowledge of the language. Through grammatical exercises, composition, and the reading of prescribed texts, it develops a basic understanding of the language of classical Athens. (Format: Lecture 3 Hours, Tutorial 1 Hour) (Distribution: Arts-b) (Exclusion: GREK 1000)

### GREK 1101 (3.00 CR) INTRODUCTORY ANCIENT GREEK II

**Prereq:** GREK 1001; or permission of the Department  
A continuation of the study of the ancient Greek language. This course adds new grammar and continues to build vocabulary, while concentrating on the development of a reading facility in ancient Greek. Three class periods per week, plus a fourth hour to be arranged after classes have begun. (Format: Lecture 3 Hours, Tutorial 1 Hour) (Exclusion: GREK 1000)

### GREK 1991 (3.00 CR) SPECIAL TOPIC IN GREEK

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for GREK 1991 more than once, provided the subject matter differs.] (Format: Variable)

### GREK 2001 (3.00 CR) INTERMEDIATE GREEK

**Prereq:** GREK 1101; or permission of the Department  
This course introduces students to the reading of unadapted passages from ancient authors. While the emphasis is on developing a fluency in reading Greek, it also reviews basic Greek grammar and presents some more advanced grammar and syntax. (Format: Lecture 3 Hours)

### GREK 2101 (3.00 CR) INTRODUCTORY READINGS IN GREEK LITERATURE

**Prereq:** GREK 2001; or permission of the Department  
A reading of selected works by Greek authors. This course will acquaint the student with some of the forms of ancient prose and poetry. (Format: Lecture 3 Hours)

### GREK 2991 (3.00 CR) SPECIAL TOPIC IN GREEK

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for GREK 2991 more than once, provided the subject matter differs.] (Format: Variable)

### GREK 3001 (3.00 CR) READINGS IN GREEK PROSE

**Prereq:** GREK 2101; or permission of the Department  
The translation and study of the work of one or more Greek prose authors. (Format: Lecture 3 Hours)

### GREK 3101 (3.00 CR) READINGS IN GREEK POETRY

**Prereq:** GREK 2101; or permission of the Department  
The translation and study of the work of one or more Greek poets. (Format: Lecture 3 Hours)

### GREK 3991 (3.00 CR) SPECIAL TOPIC IN GREEK

**Prereq:** 6 Credits from History and first year standing;  
This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for GREK 3991 more than once, provided the subject matter differs.] (Format: Variable)

### GREK 4001 (3.00 CR) DIRECTED READINGS IN GREEK

This course is a detailed study of one or more Greek authors. [Note 1: Permission of the Department required. Note 2: GREK 4001 may be taken for credit more than once if the topic differs.] (Format: Lecture 3 Hours)

### GREK 4950 (6.00 CR) INDEPENDENT STUDY IN GREEK

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for GREK 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

### GREK 4951 (3.00 CR) INDEPENDENT STUDY IN GREEK

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for GREK 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**GREK 4991 (3.00 CR)**  
**SPECIAL TOPIC IN GREEK**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for GREK 4991 more than once, provided the subject matter differs.] (Format: Variable)

**LATIN COURSES**

**LATI 1001 (3.00 CR)**  
**INTRODUCTORY LATIN I**

This course introduces basic Latin grammar and vocabulary for students with no previous knowledge of the language. It makes use of readings that present not only the fundamentals of Latin but also the Roman world in which it was used. Format: Lecture 3 Hours, Tutorial 1 Hour (Distribution: Arts-b) (Exclusion: LATI 1000)

**LATI 1101 (3.00 CR)**  
**INTRODUCTORY LATIN II**

**Prereq:** LATI 1001; or permission of the Department

A continuation of the study of the Latin language. While adding new grammar, this course concentrates on reading comprehension and vocabulary building. Three class periods per week, plus a fourth hour to be arranged after classes have begun. (Format: Lecture 3 Hours, Tutorial 1 Hour) (Exclusion: LATI 1000)

**LATI 1991 (3.00 CR)**  
**SPECIAL TOPIC IN LATIN**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisites set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for LATI 1991 more than once, provided the subject matter differs.] (Format: Variable)

**LATI 2001 (3.00 CR)**  
**INTERMEDIATE LATIN**

**Prereq:** LATI 1101; or permission of the Department

This course introduces students to the reading of unadapted passages from ancient authors. While the emphasis is on developing a fluency in reading Latin, it also reviews basic Latin grammar and presents some more advanced grammar and syntax. (Format: Lecture 3 Hours)

**LATI 2101 (3.00 CR)**  
**INTRODUCTORY READINGS IN LATIN LITERATURE**

**Prereq:** LATI 2001; or permission of the Department

A reading of selected works by Latin authors. This course will acquaint the student with some of the forms of ancient prose and poetry. (Format: Lecture 3 Hours)

**LATI 2991 (3.00 CR)**  
**SPECIAL TOPIC IN LATIN**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisites set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for LATI 2991 more than once, provided the subject matter differs.] (Format: Variable)

**LATI 3001 (3.00 CR)**  
**READINGS IN LATIN PROSE**

**Prereq:** LATI 2101; or permission of the Department

The translation and study of the work of one or more Latin prose authors. (Format: Lecture 3 Hours)

**LATI 3101 (3.00 CR)**  
**READINGS IN LATIN POETRY**

**Prereq:** LATI 2101; or permission of the Department

The translation and study of the work of one or more Latin poets. (Format: Lecture 3 Hours)

**LATI 3991 (3.00 CR)**  
**SPECIAL TOPIC IN LATIN**

**Prereq:** Second-year standing; 6 credits from HIST; or permission of the Department

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisites set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for LATI 3991 more than once, provided the subject matter differs.] (Format: Variable)

**LATI 4001 (3.00 CR)**  
**DIRECTED READINGS IN LATIN**

This course is a detailed study of one or more Latin authors. [Note 1: Permission of the Department is required. Note 2: LATI 4001 may be taken for credit more than once if the topic differs.] (Format: Lecture 3 Hours)

**LATI 4950 (6.00 CR)**  
**INDEPENDENT STUDY IN LATIN**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for LATI 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

### LATI 4951 (3.00 CR) INDEPENDENT STUDY IN LATIN

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for LATI 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

### LATI 4991 (3.00 CR) SPECIAL TOPIC IN LATIN

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisites set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for LATI 4991 more than once, provided the subject matter differs.] (Format: Variable)

## COGNITIVE SCIENCE

Cognitive Science is an interdisciplinary program that seeks to further understand what the mind does and how it works. Incorporating perspectives from a variety of fields, it investigates how information is represented, processed, and transformed in both humans and machines.

### Interdisciplinary B.Sc. Program

#### MAJOR in Cognitive Science is 60 credits earned as follows:

- 9 from COMP 1631, 1731, 2611
- 3 from COMP 2631, 2931
- 9 from PSYC 1001, 1011, 2201
- 6 from PSYC 2101, 3111, 3201, 3211, 3101, 4101
- 6 from PSYC 2001 (or MATH 2311), 2011 (or MATH 2321)
- 6 from PHIL 2511, 3511
- 3 from PHIL 4511, 4521
- 3 from LING 3001, 3011, PSYC 3221
- 9 from the following, with at least 6 being at the 3000 level: COMP 3651, 3851, 3611, COMP/MATH 2211, 3531, PHIL 2611, 3221, 3231, 3351, 3631, 3711, 4611, PHYS 3361, 3581
- 3 from MATH 1111
- 3 from CHEM 1001, PHYS 1041, PHYS 1051

#### BSc HONOURS in Cognitive Science is 75 credits earned as follows:

- 60 credits as in either the B.A or B.Sc. Major, plus:
- 6 from COGS 4990
- 9 additional credits from the following, with at least 6 credits from a single discipline chosen in consultation with the Program Advisor:

COMP 3651, 3851, 3611, 4951

PHIL 3221, 3231, 3351, 3631, 3711, 4511, 4521, 4611, 4951

PHYS 3581, 3361, 4951

PSYC 3001, 3101, 3111, 3201, 3211, 4101, 4951

**Note:** Students pursuing the Interdisciplinary Major in Cognitive Science under the Bachelor of Science degree are reminded that Regulations 11.3.4 and 11.3.5 must still be fulfilled.

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.



## COMMERCE/RON JOYCE CENTRE FOR BUSINESS STUDIES

**Note:** The Minor and Major in Commerce on a B.A. program are outlined below. For a description of program requirements for completion of a B.Comm. Please see Section 11.5.

### Disciplinary B.A. Programs

#### MINOR in Commerce is 24 credits earned as follows:

- 9 credits from the following: COMM 1011, ECON 1001, 1011, and 3 credits from COMM 1411 or a Computer Science course
- 15 from Commerce, including at least 6 at the 3/4000 level

#### MAJOR in Commerce is 60 credits earned as follows:

- 15 from COMM 1011, 2101, 2131, 2201, 2301
- 3 from COMM 1411 or a Computer Science course
- 6 from Economics (not including ECON 2701)
- 24 from Commerce with at least 21 at the 3/4000 level
- 12 from complementary courses, chosen in consultation with the Program Advisor

#### Note:

1. COMM 3411, 3501, 4141, 4501, and 4521 may be designated as Economics electives for students taking a Major, Minor or Honours in Economics.
2. ECON 3201, 3211, 3301, 3601, 3711, 3921, 4501, 4511, 4611, 4621, 4700, 4801, 4811, 4821, 4990 and COMP 3851 are Commerce electives for students taking a Bachelor of Commerce or a Major or Minor in Commerce.

## COMMERCE COURSES

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

### COMM 1011 (3.00 CR) APPLICATIONS IN BUSINESS STUDIES

**Prereq or Coreq:** First or Second-year standing; or permission of the Department

This course introduces core elements and functions of businesses and organizations (herein, organizations) in contemporary society. It considers internal and external influences, pressures and demands on organizations to understand and critically reflect on the contexts in which they operate. It introduces different business and organizational structures, functions, and considers issues of competition and collaboration within and between businesses and stakeholder groups (including governments, sectors/industries, unions and the workforce). [Note: This course is intended for first year or second year students, or students with little prior knowledge in commerce and business studies]. This course may not count for credit toward a degree if credit has already been granted for nine or more credits from 2000 level Commerce courses] (Format: Lecture 3 Hours)

### COMM 1411 (3.00 CR) QUANTITATIVE ANALYSIS FOR BUSINESS DECISION MAKING

**Prereq or Coreq:** First or Second-year standing; or permission of the Department

This course introduces quantitative tools used in business decision making and the conventions and terminologies used in the application of these tools. Topics include: discounting, markups and markdowns, breakeven analysis, interest calculations, and the mathematics of finance. (Forma: Lecture 3 Hours, Tutorial 1 Hour) (Exclusion: Commerce 1991 Quantitative Analysis for Business Decision Making)

### COMM 1991 (3.00 CR) SPECIAL TOPIC IN COMMERCE

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for COMM 1991 more than once, provided the subject matter differs. (Format: Variable)

### COMM 2101 (3.00 CR) INTRODUCTORY FINANCIAL ACCOUNTING I

**Prereq:** COMM 1011; 3 credits from COMM 1411 or a Computer Science course; ECON 1001; ECON 1011; or permission of the Dept  
This course introduces the accounting model and analysis of Financial Statements and the important concepts associated with them. (Format: Lecture/Problem Based Learning 3 Hours) (Exclusion: COMM 1111)

### COMM 2121 (3.00 CR) INTRODUCTORY FINANCIAL ACCOUNTING II

**Prereq:** COMM 2101; or permission of the Department

This course examines in greater detail the principles, practices and techniques of financial accounting first introduced in Commerce 2101. (Format: Lecture/Problem Based Learning 3 Hours) (Exclusion: COMM 1121)

**COMM 2131 (3.00 CR)**  
**MANAGEMENT ACCOUNTING**

**Prereq:** COMM 2101; or permission of the Department

An introduction to the principles and practices of management accounting, with a concentration on the decision making process. Topics include the use of accounting data in short-run and long-run decision making; managerial planning, control, and internal performance evaluation; and an introduction to variance analysis. (Format: Lecture/Problem Based Learning/Projects 3 Hours) (Exclusion: COMM 2111)

**COMM 2201 (3.00 CR)**  
**FUNDAMENTALS OF MARKETING**

**Prereq:** COMM 1011; 3 credits from COMM 1411 or a Computer Science course; ECON 1001; ECON 1011; or permission of the Dept

This course stresses the meaning of products and services to the consumer recognizing that a consumer orientation is essential for effective decision making. Students have the opportunity to develop fundamental skills in analysis, report writing, and presentations. (Format: Lecture/Discussion 3 Hours)

**COMM 2211 (3.00 CR)**  
**MARKETING MANAGEMENT**

**Prereq:** COMM 2201; or permission of the Department

The development and implementation of marketing strategy is the primary concern of marketing management. This course covers the key elements of a marketing strategy: competitive positioning, product/service strategy, pricing strategy, distribution strategy and marketing communications strategy. Students are provided with opportunities to develop analytical, decision-making and communication skills. (Format: Case Discussion/Lecture/Projects 3 Hours)

**COMM 2301 (3.00 CR)**  
**ORGANIZATIONAL BEHAVIOUR I**

**Prereq:** COMM 1011; 3 credits from COMM 1411 or a Computer Science course; ECON 1001; ECON 1011; or permission of the Department

This course focuses on the micro aspects of organizational behaviour. It emphasizes human needs, motivation, perception, individual differences, personality, job design, work attitudes, performance appraisal, and stress management. The objective is to ensure that potential managers interact more effectively with subordinates, peers, and superiors in the organizational setting. (Format: Case/Discussion/Lecture 3 Hours)

**COMM 2311 (3.00 CR)**  
**ORGANIZATIONAL BEHAVIOUR II**

**Prereq:** COMM 2301; or permission of the Department

This course focuses on the macro aspects of organizational behaviour. Topics include group processes in the organization and their relationship to effectiveness, intergroup conflict, cooperation, leadership, communication, team dynamics, and organizational change. (Format: Case Discussion/Lecture 3 Hours) (Exclusion: COMM 3331)

**COMM 2991 (3.00 CR)**  
**SPECIAL TOPIC IN COMMERCE**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for COMM 2991 more than once, provided the subject matter differs.] (Format: Variable)

**COMM 3111 (3.00 CR)**  
**INTERMEDIATE ACCOUNTING I**

**Prereq:** COMM 2121; or permission of the Department

This course expands basic accounting concepts learned in Commerce 2101 and 2121. It develops the general accounting theory of assets, liabilities, income, equity, and funds flow. Particular emphasis will be placed on the conceptual framework of accounting, revenue and expense recognition, asset and liability recognition, and measurement and disclosure. (Format: Case Discussion/Lecture/Problem Based Learning 3 Hours.)

**COMM 3121 (3.00 CR)**  
**INTERMEDIATE ACCOUNTING II**

**Prereq:** COMM 3111; or permission of the Department

The following topics are discussed: shareholders' equity, dilutive securities, investments, and a series of special topics, including: corporate income taxes, pension costs, leases, and accounting changes and error analysis. (Format: Case Discussion/Lecture/Problem Based Learning 3 Hours)

**COMM 3131 (3.00 CR)**  
**COST ACCOUNTING**

**Prereq:** COMM 2121 COMM 2131; or permission of the Department

This course studies the principles, procedures and techniques of analysis used in cost accounting. Topics include: operating budgets, product costing, predetermined costs, planning and control, relevant costs, and variance analysis. (Format: Lecture/Problem Based Learning 3 Hours)

**COMM 3151 (3.00 CR)**  
**TAXATION**

**Prereq:** COMM 2131; or permission of the Department

The course will explore the basic principles of taxation in Canada, with emphasis on Canadian Income Tax. It stresses the effects of taxation on business decisions by individuals and corporations. (Format: Lecture/Problem Based Learning 3 Hours) (Exclusion: COMM 4111)

**COMM 3161 (3.00 CR)**  
**INTRODUCTION TO AUDITING**

**Prereq:** COMM 2121; or permission of the Department

This course introduces the role of auditing in society and the ethics and standards of professional conduct expected of auditors. It develops a conceptual understanding of key decisions made by auditors when examining and reporting on financial statements. It develops an appreciation of the complex environment in comprehensive or value-for-money audit on corporations and public institutions. (Format: Lecture 3 Hours) (Exclusion: COMM 4151)

**COMM 3211 (3.00 CR)**  
**CONSUMER BEHAVIOUR**

**Prereq:** COMM 2211; or permission of the Department

This course is an interdisciplinary investigation of the consumer decision-making process of individuals and groups. It examines the role of information processing, situational influences, and the marketing environment in the selection, purchase, use, and disposal of products, services, ideas, and experiences. It considers emerging ethical and technological issues. (Format: Lecture/Application 3 Hours)

**COMM 3231 (3.00 CR)**  
**MARKETING CHANNELS OF DISTRIBUTION**

**Prereq:** COMM 2211; or permission of the Department

Marketing strategy is implemented within the context of channels of distribution. This course studies distribution issues faced by manufacturers, wholesalers, retailers, and specialized institutions. It emphasizes inventory issues, product assortment decisions, channel negotiations, and channel change. (Format: Case Discussion/Lecture/Projects 3 Hours)

**COMM 3251 (3.00 CR)**  
**GLOBAL MARKETING**

**Prereq:** COMM 2211; or permission of the Department

This course explores managerial aspects of marketing activities across geographic, political, and cultural boundaries. Decision analysis focuses on environmental factors, cross-cultural sensitivity, and adaptive strategies. It considers a diverse set of business structures. (Format: Lecture/Case Study 3 Hours) (Exclusion: Any version of COMM 3251 previously offered with a different title)

**COMM 3261 (3.00 CR)**  
**INTEGRATED MARKETING COMMUNICATIONS**

**Prereq:** COMM 2211; or permission of the Department

This course provides a broad exposure to the promotional mix concentrating on integrated marketing communications and its key elements: advertising, personal selling, sales promotion, public relations, direct marketing, and other forms of communications. Canadian advertising institutions, government legislation and industry regulations are considered in relation to social and economic concepts. Emphasis is placed on understanding the marketing communications process and its place in an organization's planning process. (Format: Lecture/Experiential Learning Projects 3 Hours) (Exclusion: COMM 4251 Integrated Marketing Communications)

**COMM 3271 (3.00 CR)**  
**ARTS AND CULTURE MARKETING**

**Prereq:** COMM 2211; or permission of the Department

This course examines the appropriate application of marketing management concepts and frameworks to arts and culture. Students gain hands-on experience with issues related to the identification and resolution of marketing problems in the arts and culture sector. [Note 1: Students enrolled in Drama, Fine Arts, or Music programs who are already doing 3/4000 level work in their own field will be admitted to this course.] (Format: Seminar 3 Hours)

**COMM 3321 (3.00 CR)**  
**HUMAN RESOURCES MANAGEMENT**

**Prereq:** COMM 2311; or permission of the Department

This course examines human resource management functions in formal organizations, both public and private. Topics include human resource planning, recruitment, selection, performance appraisal and employment equity; training and development; compensation systems and the management of employee benefits; and the role of the human resource manager. (Format: Lecture 3 Hours)

**COMM 3341 (3.00 CR)**  
**ORGANIZATIONAL THEORY**

**Prereq:** COMM 2311; or permission of the Department

This course examines current theory and research on the design of effective organizations. It focuses on interrelationships among an organization's formal and informal structures, culture, technology, and competitive environment and the different types of organizations resulting from different configurations of these elements. Topics may include power and politics in and about the organization, goal setting, organizational effectiveness and efficiency, and organizational renewal. (Format: Case Discussion/Lecture 3 Hours)

**COMM 3361 (3.00 CR)**  
**ENTREPRENEURSHIP AND NEW VENTURE CREATION**

**Prereq:** COMM 2131; COMM 2201; or permission of the Department

This course examines the process of business venture creation and start-up and of the role of the entrepreneur in this process. Topics include business opportunity assessment, the structure and function of the business plan, new venture financing, and the legal and regulatory aspects of start-up. (Format: Lecture 3 Hours)

**COMM 3391 (3.00 CR)**  
**CRITICAL ISSUES IN WORK AND EMPLOYMENT**

**Prereq:** 6 credits from Social Science; or 3 credits from WGST 1001 or COMM 2311; or permission of the Department

This course examines contemporary issues of differential access to decent quality work. Drawing from critical employment scholarship, this course addresses the meaning and nature of job quality; examines the consequences of poor quality work for individuals, families and society; and considers employer practices, and organizational and structural enablers of differential job/employment quality. It considers issues of precarious and 'non-standard' work, emotional and aesthetic labour, harassment in the workplace, and occupational and labour market segregation through an intersectional lens, including issues of gender, race, age, ability, class, and immigration status. [Note: This course is listed as an elective for the Minor in Women's and Gender Studies] (Format: Seminar 3 Hours) (Exclusion: Commerce 3991 Critical Issues Work & Labour Markets)

**COMM 3401 (3.00 CR)**  
**RESEARCH METHODS IN BUSINESS**

**Prereq:** 3 credits from MATH 2321, ECON 2701, PSYC 2011; or permission of the Department

This course introduces students to the process of research to illuminate the academic and practical significance of research activities. Students are exposed to different research methodologies and how these underlying methodologies inform the research process. Topics include qualitative and quantitative research methodologies, developing data collection strategies and tools, and selecting appropriate methods to analyze data. (Format: Lecture 3 Hours, Laboratory 1 Hour) (Exclusion: COMM 4231)

**COMM 3411 (3.00 CR)**  
**MANAGEMENT SCIENCE**

**Prereq:** 3 credits from COMM 1411; 3 credits from MATH 1111, 1151; 3 credits from MATH 2321, ECON 2701, PSYC 2011; 3 credits from a Computer Science course; or Permission of the Department

This course examines formalized methods of arriving at business decisions. Topics may include constrained optimization models, decision models, game theory, network models, forecasting, and dynamic programming. [Note 1: Counts as an Economics elective for students taking a Major, Minor or Honours in Economics.] (Format: Lecture 3 Hours) (Exclusion: Any version of COMM 3411 previously offered with a different title).

**COMM 3421 (3.00 CR)**  
**PRODUCTION AND OPERATIONS MANAGEMENT**

**Prereq:** COMM 2131; MATH 2311; or permission of the Department

An introduction to issues and problems in the area of operations management. Topics include: productivity, product design and process selection (manufacturing and services), quality control, capacity planning, facility layout, work measurement, just-in-time inventory systems, synchronized manufacturing, and automation. (Format: Lecture/Projects 3 Hours)

**COMM 3431 (3.00 CR)**  
**MANAGEMENT INFORMATION SYSTEMS**

**Prereq:** COMM 2131; 3 credits from COMP; or permission of the Department

This course covers the information systems approach to the decision-making process. Such methods as Critical Path Planning, Electronic Data Processing and others will be studied in reference to a total information system. The student will be involved in identifying, evaluating, and designing information flows. (Format: Lecture/Projects 3 Hours) (Exclusion: COMM 4411)

**COMM 3501 (3.00 CR)**  
**INTRODUCTION TO FINANCE**

**Prereq:** COMM 2101; 3 credits from MATH 2321, ECON 2701, PSYC 2011; or permission of the Department

Important topics in this course include value, capital budgeting, the relationship of risk and expected return, market efficiency, capital structure and dividend policy. Other topics such as option theory, hedging, the theory of interest, and international finance may be introduced. The institutional setting of financial management in North America, and specifically in Canada, will be discussed. [Note 1: Counts as an Economics elective for students taking a Major, Minor or Honours in Economics.] (Format: Lecture 3 Hours)

**COMM 3611 (3.00 CR)**  
**COMMERCIAL LAW**

**Prereq:** Third-year standing; or permission of the Department

An introductory course in commercial law, providing background for general business. Topics dealt with are: the essentials of a contract, general contract law, sale of goods, employment and agency, business associations, credit transactions. (Format: Lecture 3 Hours) (Exclusion: COMM 4611)

**COMM 3991 (3.00 CR)**  
**SPECIAL TOPIC IN COMMERCE**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for COMM 3991 more than once, provided the subject matter differs.] (Format: Variable)

**COMM 4101 (3.00 CR)**  
**ADVANCED TOPICS IN ACCOUNTANCY**

**Prereq:** COMM 3121; or permission of the Department

This course concentrates on advanced accounting theory and relates it to the business realities. Topics may include: standard setting, partnerships, government and not-for-profit accounting, corporate liquidation and bankruptcies, and trusts and estates. (Format: Lecture 3 Hours) (Exclusion: COMM 4121; any version of COMM 4101 previously offered with a different title)

**COMM 4131 (3.00 CR)**  
**ADVANCED ACCOUNTING**

**Prereq:** COMM 3121; or permission of the Department

This course provides an introduction to business combinations, consolidated financial statements, joint ventures, and accounting for transactions and operations conducted in foreign currencies. (Format: Lecture/Case studies 3 Hours) (Exclusion: any version of COMM 4131 previously offered with a different title)

**COMM 4141 (3.00 CR)**  
**ACCOUNTING THEORY**

**Prereq:** COMM 3111; COMM 3501; or permission of the Department

This course examines the historical development of accounting theory and practice with particular emphasis on the theory of income and asset valuation. Topics include the theoretical basis for past and present accounting principles and current issues and developments in accounting practice. [Note 1: Counts as an Economics elective for students taking a Major, Minor or Honours in Economics.] (Format: Lecture 3 Hours) (Exclusion: COMM 3141)

**COMM 4201 (3.00 CR)  
MARKETING STRATEGY**

**Prereq:** Fourth-year standing; 6 credits from the 32/4200 series; or permission of the Department

The course provides an in-depth treatment of how marketing strategy is formulated and implemented. This capstone course in the marketing major integrates knowledge obtained from other marketing courses, and selected courses such as finance, policy, and management. The focus is on strategic decisions which have a long-term impact on the organization and which are difficult and costly to reverse. The strategic decision making process is supported by an external analysis (an analysis of the organization's environment) and an internal (firm) analysis.

[Note 1: This course is open only to students in the Commerce Program.] (Format: Discussion/Computer Simulation/Projects 3 Hours)

**COMM 4241 (3.00 CR)  
CURRENT CHALLENGES IN MARKETING**

**Prereq:** Fourth-year standing; 6 credits from the 3200/4200 series; or permission of the Department

This course addresses emerging issues in marketing decision-making. Topics may include: recent research related to buyer behaviour, marketing analytics, sustainable marketing, marketing mistakes and controversies, and social marketing approaches. (Format: Lecture/Seminar 3 Hours)

**COMM 4251 (3.00 CR)  
SPORTS MARKETING**

**Prereq:** COMM 3211; or permission of the Department

This course examines the sports marketing industry in relation to amateur sports, professional leagues, media, endorsements by athletes, corporate sponsorship, and the revenue streams associated with sport. It considers how effective marketing strategies can be created for sporting properties, and also how sport is used as a vehicle to market non-sport products. There is an emphasis on understanding and applying the conceptual and theoretical bases of sport marketing to actual sports organizations and their business strategies. (Format: Lecture 3 Hours)

**COMM 4261 (3.00 CR)  
SOCIAL MEDIA MARKETING**

**Prereq:** COMM 2211; or permission of the Department

This course focuses on strategic social media marketing decisions framed within the context of social network structures and group influence. Hands-on experience includes an exploration of data management principles and measurement of the nature and impact of social media strategies. (Format: Lecture/Experiential 3 Hours)

**COMM 4301 (3.00 CR)  
ARTS AND CULTURE MANAGEMENT**

**Prereq:** Third-year standing in the Bachelor of Commerce or Bachelor of Arts with a Major or Minor in Commerce; or permission of the Department

This course examines unique factors that affect management decisions in the arts and culture sector, such as governance, organizational structure, community engagement, public pressure for accountability, fundraising needs and the desire of nations to develop the sector. It takes an interdisciplinary, applied approach to resolving management issues in a broad range of arts and culture organizations including art galleries, museums and performing arts programs. [Note 1: Students enrolled in Drama, Fine Arts or Music programs who are already doing 3/4000 level work in their own field will be admitted to this course.] (Format: Lecture/Case Study 3 Hours)

**COMM 4311 (3.00 CR)  
STRATEGIC MANAGEMENT**

**Prereq:** Fourth year standing; COMM 2201; COMM 2301; COMM 3501; or permission of the Department

This course integrates the concepts and techniques developed in prior Commerce courses through the analysis and discussion of case studies, current affairs and academic literature. It introduces the discipline and practice of strategic management and applies the concepts in a diverse range of organizational and industry settings. It encourages the development of an ability to view the organization as a whole through exploring the interdependencies between organizational functions and the environment. [Note 1: This course is open only to students in their last year of studies for a Bachelor of Commerce degree. It is not available to students enrolled in the Minor or Major in Commerce.] (Format: Lecture/Seminar 3 Hours) (Exclusion: Any version of COMM 4311 previously offered with a different title)

**COMM 4321 (3.00 CR)  
STRATEGIC ISSUES**

**Prereq:** COMM 4311; or permission of the Department

This course builds upon the content covered in Comm 4311 to explore in depth pertinent issues facing organizations in the deployment of strategic management. This course examines some of these issues and explores how these issues affect an organization's ability to compete and survive. Issues that may be covered include strategy and structure, culture, strategic human resource management, sustainability, leadership and management in complex systems, creating shared value, and leveraging power and potential in organizations. (Format: Lecture/Seminar 3 Hours) (Exclusion: Any version of COMM 4321 previously offered with a different title)

**COMM 4331 (3.00 CR)**  
**MANAGEMENT OF ORGANIZATIONAL CHANGE**

**Prereq:** COMM 3341; or permission of the Department

A study of organizational change from two perspectives: planned change and evolutionary change. In discussing planned change the focus is on the planning and implementation process for introducing innovation, restructuring, continual learning, and other types of organizational change. Topics include overcoming resistance to change and embedding the desired change. In discussing evolutionary change the focus is on the patterns of change in the cultures, structures, systems and processes in different types of organizations over extended periods of time in response to management initiatives, competitive pressures and changes in other organizational variables. (Format: Case Discussion/Lecture 3 Hours)

**COMM 4341 (3.00 CR)**  
**BUSINESS ETHICS**

**Prereq:** ECON 1001; ECON 1011; 3 credits from COMM 3501, COMM 3411; or permission of the Department

This course deals with principles and practices of business ethics, with particular reference to Canada and North America. Issues investigated may include: the question of moral and legal responsibilities of corporations, ethics in business (including the various elements of ethics programs such as codes of conduct, telephone hotlines, training, the use of ethics officers and of ethics consultants), different control styles (integrity vs compliance programs), the problems associated with the prisoner's dilemma, the existence of implicit moral theory in economics and finance, the theory of the firm and agency theory, the problem of reputation, virtue ethics, ethical investment theory and practice, and the modelling of ethical problems, mainly using game theory. (Format: Lecture 3 Hour)

**COMM 4351 (3.00 CR)**  
**LEADERSHIP IN ORGANIZATIONS**

**Prereq:** 3 credits from COMM 3321, 3341; or permission of the Department

This course explores the relationship between leadership and key organizational issues and examines how the construct of leadership is enacted across organizations in the private, public, and not-for-profit sectors. It explores various theories of leadership, both classic and contemporary, as well as the evolution of leadership theory over time and its application in practice. Topics include: character, values, power and influence, gender and culture, organizational relationships, decision-making and problem solving, and management of organizational change. (Format: Seminar 3 Hours) (Exclusions: COMM 4991 Leadership; COMM 4991 Leadership in Organizations)

**COMM 4361 (3.00 CR)**  
**PEOPLE SKILLS IN ORGANIZATIONS**

**Prereq:** 3 credits from COMM 3321, 3341; or permission of the Department

This course offers a theoretical and practical approach to interpersonal skills in business. Topics may include interpersonal skills, teamwork, innovation, emotional intelligence, deep listening, real brainstorming, self-knowledge, trust, and the receipt of feedback. (Format: Case Discussion/Lecture 3 Hours) (Exclusions: COMM 4991 People Skills in Companies; COMM 4991 People Skills)

**COMM 4381 (3.00 CR)**  
**BUSINESS OF AVIATION**

**Prereq:** Third year standing; or permission of the Department

This course explores a range of issues in the aviation industry in which decision making has to balance strategic and tactical thinking against moral and ethical implications under constraints of time. [Note: This course is only available to students in the Bachelor of Commerce, BA Major in Commerce or BSc Major in Aviation] (Format: Lectures, case studies, field trips, 3 Hours) (Exclusion: Commerce 4991 Business of Aviation; Commerce 4991 Aviation Management)

**COMM 4391 (3.00 CR)**  
**OCCUPATIONAL HEALTH AND SAFETY**

**Prereq:** COMM 3321; or permission of the Department

The course focuses on prevention of illness, disease, health problems, and injuries in the work environment. Topics include: relevant legislation, occupational hazards, workplace safety climate, the etiology of job stress, and preventative health and safety interventions. The course is designed to encourage the application of psychological principles that influence employee health and safety in the workplace. (Format: Seminar 3 Hours) (Exclusion: Commerce 4991 Occupational Health and Safety)

**COMM 4501 (3.00 CR)**  
**INVESTMENTS AND PORTFOLIO MANAGEMENT**

**Prereq:** COMM 3501; or permission of the Department

Topics include theories of security valuation, portfolio selection, stock markets and economic efficiency, and capital market equilibrium. The behaviour of prices of stocks, bonds, and money market instruments will be investigated. Derivative securities will be introduced. Problems of evaluating the investment performance of individuals and investment management institutions will be discussed. [Note 1: Counts as an Economics elective for students taking a Major, Minor or Honours in Economics.] (Format: Lecture/Field Trip 3 Hours)

**COMM 4521 (3.00 CR)**  
**CORPORATE FINANCE**

**Prereq:** COMM 3501; or permission of the Department

Financial concepts and techniques applied to problems such as working capital management, financial planning, capital budgeting, capital structure, cost of capital, and mergers and acquisitions. [Note 1: Counts as an Economics elective for students taking a Major, Minor or Honours in Economics.] (Format: Lecture 3 Hours)

**COMM 4531 (3.00 CR)**  
**VENTURE CAPITAL AND FINANCE OF INNOVATION**

**Prereq:** COMM 3501; or permission of the Department

This course will provide students with an understanding of the venture capital process in the financing of innovation. The course will address the demand and supply of venture capital issues from the perspective of entrepreneurs and investors. Lectures, discussions, case studies and labs may be used to assist students in developing an understanding of the venture capital industry and explore various partnership and organizational arrangements. An important element of the course will be the application of valuation methodologies to these innovative ventures. Issues related to corporate governance will also be discussed in the course. (Format: Lecture 3 Hours)

**COMM 4950 (6.00 CR)  
INDEPENDENT STUDY IN COMMERCE**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study.

[Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for COMM 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**COMM 4951 (3.00 CR)  
INDEPENDENT STUDY IN COMMERCE**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study.

[Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for COMM 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**COMM 4990 (6.00 CR)  
HONOURS THESIS**

**Prereq:** Fourth-year standing

This course requires a major paper on a business topic and is carried out in close consultation with a thesis director. [Note 1: Permission of the Department is required.] (Format: Independent Study/Thesis)

**COMM 4991 (3.00 CR)  
SPECIAL TOPIC IN COMMERCE**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. (Format: Variable) [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for COMM 4991 more than once, provided the subject matter differs.]

## COMPUTER SCIENCE

The study of computing ranges from hands-on applications to pure theory, and includes the analysis of algorithms, the study of computer architectures, compilers and operating systems, networks, and software engineering. Our goal is to introduce students to all facets of the discipline, and to give them an appreciation of the historical, ethical, and social context of computing, and the responsibility of the computer professional and casual computer user in a modern society.

The Department offers a broad variety of courses and programs in Computer Science. Introductory courses may teach programming and theories of computing or offer a general overview of the use and application of popular microcomputer software; more advanced courses deal with topics ranging from artificial intelligence and the role of computers in society to the design and implementation of advanced hardware or software systems. All courses in the computing curriculum offer a blend of theory and practical application, with many of the offerings having a significant project component in which students are given the opportunity to apply the classroom material to real-world problems. Courses are designed to address the needs of a wide variety of users, from the casual to the professional. Some students may enrol in a course to familiarize themselves with the microcomputer and application software, while others may choose to pursue a minor or a major in Computer Science. Students may choose to select Computer Science in combination with areas such as English, Economics, Philosophy, or Physics. Mount Allison has been quite successful in placing its students in graduate programs in Computer Science, while many others have found employment after graduation in one of the many computer-related fields.

### Disciplinary B.A. and B.Sc. Programs

#### **B.A. or B.Sc. MINOR in Computer Science is 24 credits earned as follows:**

- 12 from COMP 1631, 1731, 2611, 2631
- 6 from COMP 2211, 2931, MATH 1111
- 6 from Computer Science at the 3/4000 level

#### **B.A. MAJOR in Computer Science is 60 credits earned as follows:**

- 18 from COMP 1631, 1731, 2211, 2611, 2631, 2931
- 15 from COMP 3611, 3721, 3911, 4721, 4911
- 3 from COMP 3361, 3971
- 6 from Computer Science at the 3/4000 level
- 6 from MATH 1111, 2221
- 3 from MATH 1121, 2311
- 9 from complementary courses in Arts and Letters, Humanities and Social Sciences chosen in consultation with the Program Advisor

#### **B.Sc. MAJOR in Computer Science is 63 credits earned as follows:**

- 18 from COMP 1631, 1731, 2211, 2611, 2631, 2931
- 15 from COMP 3611, 3721, 3911, 4721, 4911
- 3 from COMP 3361, 3971

- 6 from Computer Science at the 3/4000 level
- 6 from MATH 1111, 2221
- 6 from MATH 1121, 2311
- 6 from CHEM 1001, PHYS 1051, 1551
- 3 from BIOL 1001, BIOL 1501, BIOC 1001, GENS 1401, PSYC 1001 or PSYC 1011

### **B.A. HONOURS in Computer Science is 75 credits earned as follows:**

- 60 Credits as in the B.A. Major, plus
- 3 from Computer Science at the 3/4000 level
- 6 from Computer Science or Mathematics at the 3/4000 level
- 6 from COMP 4990

### **B.Sc. HONOURS in Computer Science is 78 credits earned as follows:**

- 63 Credits as in the B.Sc. Major, plus
- 3 from Computer Science at the 3/4000 level
- 6 from Computer Science or Mathematics at the 3/4000 level
- 6 from COMP 4990

### **B.A. or B.Sc. HONOURS in Computer Science and Mathematics is 75 or 87 credits earned as follows:**

- 18 from COMP 1631, 1731, 2211, 2611, 2631, 2931
- 15 from MATH 1111, 1121, 2111, 2121, 2221
- 9 from MATH 3111, 3211, 3311
- 3 from MATH 3011, 3221, 3231, 3251, 4221
- 3 from Mathematics at the 3/4000 levels
- 3 from COMP 3361, 3971
- 15 from COMP 3411, 3611, 3721, 3911, 4721
- 9 from Computer Science or Mathematics at the 3/4000 level
- 9 from CHEM 1001, 1021; PHYS 1051, 1551 (only for B.Sc.)
- 3 from BIOL 1001, BIOL 1501, BIOC 1001, GENS 1401, PSYC 1001 or PSYC 1011 (only for B. Sc.)

### **Interdisciplinary B.A. and B.Sc. Programs**

#### **B.A. or B.Sc. MINOR in Geographic Information Systems is 24 credits earned as follows:**

- 6 from COMP 1631, 1731
- 3 from GENS 1401, GENV 1201
- 3 from GENS 2431, MATH 2311
- 6 from GENS 2441, GENS 4721
- 3 from COMP 2611, 3851
- 3 from GENS 3401, GENV 3701

### **COMPUTER SCIENCE COURSES**

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of

the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following course can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees: COMP 1631

#### **COMP 1631 (3.00 CR)**

##### **INTRODUCTION TO COMPUTER SCIENCE**

This course provides a broad survey of computer science and an introduction to programming. Topics include: origins of computers, data representation and storage, Boolean algebra, digital logic gates, computer architecture, assemblers and compilers, operating systems, networks and the Internet, theories of computation, and artificial intelligence. [Note 1: University preparatory level course in Mathematics is required.] (Format: Lecture 3 Hours, Laboratory 3 Hours) (Distribution: Natural Science-a)(Exclusion: COMP 1611; COMP 1711; any COMP course at the 2000 level or higher)

#### **COMP 1731 (3.00 CR)**

##### **PROGRAMMING TECHNIQUES AND ALGORITHMS**

**Prereq:** COMP 1631; or permission of the Department

This course introduces program design techniques and algorithmic thinking using a high-level computer programming language. Topics include: fundamental control structures, elementary data structures, code reuse, basic algorithms, and debugging and testing. (Format: Lecture 3 Hours, Laboratory 3 Hours)

#### **COMP 1991 (3.00 CR)**

##### **SPECIAL TOPIC IN COMPUTER SCIENCE**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for COMP 1991 more than once, provided the subject matter differs.] (Format: Variable)

#### **COMP 2211 (3.00 CR)**

##### **DISCRETE STRUCTURES**

**Prereq:** 3 credits from MATH 1111, 1151; or permission of the Department

This course introduces the terminology and concepts of discrete mathematics. Topics may include: logical arguments, proofs and algorithm verification, sets, relations, functions and cardinality of sets, induction and recursion, enumeration, and algorithms and complexity. [Note 1: This course is cross-listed with MATH 2211 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours)

#### **COMP 2611 (3.00 CR)**

##### **DATA STRUCTURES AND ALGORITHMS I**

**Prereq:** COMP 1731; or permission of the Department

This course introduces effective methods of data organization, focussing on data structures and their algorithms via abstract data types with the use of recursive procedures. It explores the design of flexible file structures and related methods such as indexes, system file structures, and hashed access, and it emphasizes object-oriented programming techniques. (Format: Lecture 3 Hours, Laboratory 3 Hours)



**COMP 2631 (3.00 CR)****DATA STRUCTURES AND ALGORITHMS II**

**Prereq:** COMP 2611; or permission of the Department

This course introduces advanced structures for data organization, with an emphasis on associated algorithms and their complexity. Topics include: binary and text file structures, compression, distributed computing, event-driven programming, and user interface design. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**COMP 2931 (3.00 CR)****INTRODUCTION TO SYSTEMS PROGRAMMING**

**Prereq:** COMP 1731; or permission of the Department

This course is an introduction to programming at the systems level. Topics include: basic machine organization, assembly language, the UNIX environment, shell scripting, and C/C++ programming. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**COMP 2991 (3.00 CR)****SPECIAL TOPIC IN COMPUTER SCIENCE**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for COMP 2991 more than once, provided the subject matter differs.] (Format: Variable)

**COMP 3361 (3.00 CR)****DIGITAL SIGNAL PROCESSING AND ELECTRONICS**

**Prereq:** COMP 1631; PHYS 1551; or permission of the Department

This course introduces students to both digital electronic circuits and digital signal processing, and would be valuable both for those planning to go on in technical careers in computer science or in physics, and for scientists who wish to develop tools for the collection and analysis of data. Topics to be covered include digital logic gates, Boolean algebra, counting circuits, digital signal conditioning, sampling considerations such as the Nyquist criterion, analog to digital and digital to analog conversion, Fourier Transform theory and application as FFT, correlation and convolution, digital filtering using finite impulse response and infinite impulse response circuits including the ztransform and filter design, and digital image processing including two dimensional FFT techniques, microprocessors, microcontrollers and digital signal processing integrated circuits. [Note 1: This course is cross-listed with PHYS 3361 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours, Laboratory 3 Hours)

**COMP 3411 (3.00 CR)****NUMERICAL ANALYSIS**

**Prereq:** MATH 1121; 3 credits from COMP; or permission of the Department

This course introduces numerical methods for solving a variety of problems in mathematics, the natural sciences, and engineering and the implementation of numerical methods on a computer. Topics include numerical stability, polynomial approximation and interpolation, integration and solution of differential equations, solution of linear and nonlinear systems of equations and matrix factorization. [Note 1: This course is cross-listed with MATH 3411 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours)

**COMP 3531 (3.00 CR)****SIMULATION AND MODELING**

**Prereq:** MATH 1111; 3 credits from MATH 2311, MATH 3311, PSYC 2001, PSYC 2011; 3 credits from COMP; or permission of the Department

This course introduces the simulation technique for studying mathematical models. Topics may include: systems theory and system models, continuous system simulation, discrete system simulation, Monte Carlo methods, random number generators, and simulation languages. It emphasizes computer implementation of the methods studied. [Note 1: This course is cross-listed with MATH 3531 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours)

**COMP 3611 (3.00 CR)****ALGORITHM ANALYSIS**

**Prereq:** COMP 2631; COMP/MATH 2211; or permission of the Department

This course applies analysis and design techniques to non-numeric algorithms that act on data structures. The design of efficient algorithms leads to in-depth investigations of computational complexity such as NP-hard problems. (Format: Lecture 3 Hours)

**COMP 3651 (3.00 CR)****ARTIFICIAL INTELLIGENCE**

**Prereq:** COMP 2631; COMP/MATH 2211; or permission of the Department

This course introduces general problem solving methods associated with automated reasoning and simulated intelligence. Topics include: state space heuristic search theory, mechanical theorem proving, game playing, natural language processing, propositional logic, learning and cognitive models and expert systems. (Format: Lecture 3 Hours)

**COMP 3711 (3.00 CR)****PRINCIPLES OF PROGRAMMING LANGUAGES**

**Prereq:** COMP 2631; COMP 2931; or permission of the Department

This course introduces the principles of design and implementation of programming languages. Topics include: language syntax and processors, and semantic models of data and control structures. (Format: Lecture 3 Hours)

**COMP 3721 (3.00 CR)****OBJECT-ORIENTED DESIGN AND METHODOLOGY**

**Prereq:** COMP 2631; or permission of the Department

This course continues the introduction to object-oriented programming in earlier courses, emphasizing further development of algorithms, data structures, software engineering, and the social context of computing. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**COMP 3811 (3.00 CR)****DATABASE SYSTEMS**

**Prereq:** COMP 2631; COMP/MATH 2211; or permission of the Department

This course introduces the major types of database systems and provides experience with at least one database model. It emphasizes the theoretical and practical aspects of the relational model, including database query systems and database design. (Format: Lecture 3 Hours)

**COMP 3831 (3.00 CR)****COMPUTER GRAPHICS**

**Prereq:** COMP 2631; COMP 2931; MATH 2221; or permission of the Department

This course introduces the principles and tools of interactive computer graphics: implementation of device drivers, 3D transformations, clipping, perspective views, input routines, user interface design, data structures, hidden lines, surface removal, colour shading and ray tracing. (Format: Lecture 3 Hours)

**COMP 3851 (3.00 CR)****COMPUTERS AND SOCIETY**

**Prereq:** Third-year standing; 3 credits from COMP; 3 credits from Science; or permission of the Department

This course examines the historical development and growth of the computer and related digital technology. The impact of the computer and the digitalization of society are discussed, including ethical issues related to the modern information age. Privacy and data protection, computer crime, data theft, and legal issues in software creation and use are examined. The responsibilities of the computer professional and computer user are examined from the technical, personal, and societal perspectives. [Note 1: Counts as a Commerce elective for students taking a Bachelor of Commerce or a Major or Minor in Commerce.] (Format: Lecture 3 Hours)

**COMP 3911 (3.00 CR)****OPERATING SYSTEMS**

**Prereq:** COMP 2631; COMP 2931; or permission of the Department

This course examines the major concepts underlying the design of operating systems such as process management, scheduling, memory management, device management, security, and network structures. (Format: Lecture 3 Hours)

**COMP 3971 (3.00 CR)****COMPUTER ORGANIZATION AND ARCHITECTURE**

**Prereq:** COMP 2631; COMP 2931; or permission of the Department

This course introduces modern computer design and its relation to system architecture and program function. Topics include system bus design, memory organization, I/O device access, instruction set design, instruction pipelining, leading to an investigation of how these tools are used to support multi-processor systems. (Format: Lecture 3 Hours)

**COMP 3991 (3.00 CR)****SPECIAL TOPIC IN COMPUTER SCIENCE**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for COMP 3991 more than once, provided the subject matter differs.] (Format: Variable)

**COMP 4631 (3.00 CR)****THEORY OF COMPUTATION**

**Prereq:** COMP 1731; COMP/MATH 2211; or permission of the Department

This course is an introduction to theoretical aspects of Computer Science such as formal language and automata theory and complexity theory. [Note 1: This course is cross-listed with MATH 4631 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours)

**COMP 4651 (3.00 CR)****CRYPTOGRAPHY**

**Prereq:** COMP 1731; COMP/MATH 2211; MATH 2221; or permission of the Department

This course is an introduction to cryptographic algorithms and to the cryptanalysis of these algorithms, with an emphasis on the fundamental principles of information security. Topics include: classical cryptosystems, modern block and stream ciphers, public-key ciphers, digital signatures, hash functions, key distribution and agreement. [Note 1: This course is cross-listed with MATH 4651 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours)

**COMP 4721 (3.00 CR)****SOFTWARE DESIGN**

**Prereq:** Third-year standing; COMP 3721; or permission of the Department

This course focuses on software design culminating in a major project. It studies life cycle models and their phases: planning, requirements, specifications, design, implementation, testing, and maintenance. (Format: Lecture 3 Hours, Laboratory 2 Hours)

**COMP 4911 (3.00 CR)****COMPUTER NETWORKS**

**Prereq:** COMP 2631; COMP 2931; or permission of the Department

This course introduces computer network applications and design. Topics include: layered models, data transmission protocols, network topology, and security. (Format: Lecture 3 Hours)

**COMP 4950 (6.00 CR)**  
**INDEPENDENT STUDY IN COMPUTER SCIENCE**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for COMP 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**COMP 4951 (3.00 CR)**  
**INDEPENDENT STUDY IN COMPUTER SCIENCE**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for COMP 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**COMP 4990 (6.00 CR)**  
**HONOURS THESIS**

This course comprises independent research and study under the direction of a member of the Department; for students in the Computer Science Honours program. [Note 1: Consent of supervising staff member and permission of the Department required.] (Format: Independent Study/Thesis)

**COMP 4991 (3.00 CR)**  
**SPECIAL TOPIC IN COMPUTER SCIENCE**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for COMP 4991 more than once, provided the subject matter differs.] (Format: Variable)

## DRAMA STUDIES

Students at Mount Allison with an interest in drama have several options open to them. In all cases, the programs are designed to provide an education in drama rather than professional training for the theatre.

### Interdisciplinary B.A. Programs

#### MINOR in Drama is 24 credits earned as follows:

- 3 from DRAM/ENGL 1701
- 6 from DRAM 2151, 2161, 3161
- 15 from CLAS 3201, 3211; DRAM 2151, 2161 or 3161 (if not counted above), 2669, 3669, 4669, 3001, 3151, 3171, 3201, 3301, 4011, 4951, 1991-4991; DRAM/ENGL 3841; ENGL 2211, 3211, 3311, 3431, 3551, 3561, 3611, 3621; MUSC 3201, 3271; SPAN 3321

#### MAJOR in Drama is 60 credits earned as follows:

##### Drama Core is 33 credits as follows:

- 3 from DRAM/ENGL 1701
- 15 from DRAM 2151, 2161, 3001, 3151, 3161
- 3 from DRAM 4011
- 9 from DRAM 3171, 1991-4991, 3201, 3301; COMM 3271
- 3 from DRAM 2669, 3669, 4669

##### Dramatic Literature

- 15 to 21 from CLAS 3201, 3211; DRAM 3301 (if not counted in the core courses), DRAM 4950\*, 4951\*; DRAM/ ENGL 3841; ENGL 2211, 3211, 3311, 3431, 3551, 3561, 3611 or 3621; SPAN 3321 and from the following when the topic is dramatic literature: English 4000 series; GERM 1991-4991; SPAN 3060, 4950/51
- 6 to 12 to be chosen in consultation with the Drama Program Advisor. The following are particularly recommended: ANTH 2231, 4421; COMM 3271 (if not counted in the core courses), 4301; DRAM 3201 (if not counted in the core courses), DRAM 3301 (if not counted in the core courses, or toward Dramatic Literature), 4011\*, 1991-4991; English credits at the 1000 level, ENGL 3621, 3850, 3871, 3881, 3921; FINA 1901, 1911, 1921, 1931, FINH 2101, 2111; FREN 2601, 2801, 3801; GERM 2601, 2701; MUSC 1991-4991, 1001, 1011, 1101, 1111, 2011, 2679, 3201, 3271, 3301, 3679, 4679; SOCI 3451; and from the following courses when their subject is appropriate: ANTH 4901, 1991-4991; CANA 1991-4991, 4601, 4951; ENGL 1991-4991; FREN 4951; GERM 1991-4991, 4950/4951; SPAN 1991-4991, 4950/51

**Note:** Students may take DRAM 4011 and 4950-51 more than once provided the topic differs.

## DRAMA COURSES

With the exceptions below, all descriptions of Drama courses available are given in the appropriate course description section. The only interdisciplinary drama courses offered are described below.

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following course can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees: DRAM 1701\*

\*DRAM/ENGL cross-listed courses (DRAM 1701) may not be used for distribution in combination with other English courses (ENGL 1111, 1121, 1501, 1801).

### **DRAM 1701 (3.00 CR) INTRODUCTION TO DRAMA STUDIES**

This course introduces conventions, forms, and devices of drama as they emerge under, and respond to, specific theatrical and cultural conditions. [Note 1: This course is cross-listed as ENGL 1701 and may be taken as three credits in either discipline.] (Format: Lecture 3 Hours) (Distribution: Arts-a)(Exclusion: DRAM/ENGL 2021)

### **DRAM 1991 (3.00 CR) SPECIAL TOPIC IN DRAMA**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for DRAM 1991 more than once, provided the subject matter differs.] (Format: Variable)

### **DRAM 2151 (3.00 CR) INTRODUCTION TO ACTING**

**Prereq:** DRAM/ENGL 1701; or permission of the Program Director

This course introduces the theory and practice of acting, and develops competence in script analysis and performance with a view to creating a dramatic role on stage. Dramatic improvisations and character and scene studies complement the exploration of the themes, structures, rhythms and subtext embedded in dramatic texts in order to prepare students for performance. (Format: Lecture/Workshop 3 Hours)

### **DRAM 2161 (3.00 CR) THEATRE PRODUCTION**

**Prereq:** DRAM/ENGL 1701; or permission of the Program Director

This course allows students to develop competence in basic stagecraft, chiefly set construction, light and sound; in stage management, production management, technical direction, lighting and sound design; and in basic drafting and technical drawing. (Format: Lecture/Workshop 3 Hours) (Exclusion: Any version of DRAM 2161 previously offered with a different title)

### **DRAM 2991 (3.00 CR) SPECIAL TOPIC IN DRAMA**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for DRAM 2991 more than once, provided the subject matter differs.] (Format: Variable)

### **DRAM 3001 (3.00 CR) DRAMA AND THEATRE THEORY**

**Prereq:** DRAM/ENGL 1701; or permission of the Program Director

This course introduces seminal theories of theatre practice and aesthetics, as well as the nature of theatrical presentation and representation, theatre semiotics and communication, performer training, and questions of impersonation and embodiment, spectatorship and reception. The course aims to enrich students' awareness of how performance participates in the transmission of culture and explores the intersection of theory and praxis. (Format: Lecture/Workshop 3 Hours) (Exclusion: Any version of DRAM 3001 previously offered with a different title)

### **DRAM 3151 (3.00 CR) PRINCIPLES OF DIRECTING**

**Prereq:** DRAM 2151; or permission of the Program Director

This course introduces students to the theory and practice of directing, diverse models of the director's role in the theatrical process, script analysis for directorial purposes, study of staging techniques, and techniques for working with actors. (Format: Lecture/Workshop 3 Hours) (Exclusion: DRAM 3051)

### **DRAM 3161 (3.00 CR) THEATRE DESIGN**

**Prereq:** DRAM/ENGL 1701; or permission of the Program Director

This course explores theatre architecture, set design, costume design, scenic painting, properties, mask-making, and historical research in support of theatrical design. (Format: Lecture/Workshop 3 Hours) (Exclusion: DRAM 3061; any version of DRAM 3161 previously offered with a different title)

### **DRAM 3171 (3.00 CR) ACTING STYLES**

**Prereq:** DRAM 2151; or permission of the Program Director

This course focuses on approaches to character creation and acting styles across diverse theatrical forms. It explores advanced acting techniques and principles as a way to approach non-realist dramatic literature and types of performance with a special emphasis on developing the students' knowledge and understanding of style in performance. The course addresses the particular demands made on the performer by styles such as Greek tragedy, choral performance, Shakespearean (tragedy and comedy), comedy of character, comedy of manners, Commedia dell'arte, farce, melodrama, Theatre of the Absurd, and physical theatre. (Format: Integrated Lecture and Workshop 3 Hours)

**DRAM 3201 (3.00 CR)****TRENDS IN CONTEMPORARY THEATRE**

**Prereq:** DRAM/ENGL 1701; or third-year standing in the Interdisciplinary Drama Program; or permission of the Program Director

This course introduces students to late twentieth and early twenty-first century theatre practice. It complements the investigation of contemporary postdramatic theatre and its methods with study of historical and cultural influences as well as seminal theories of performance that inform the work of selected theatre makers, performance artists, directors, scenographers, and actors. (Format: Lecture/ Workshop 3 hours) (Exclusion: DRAM 3991 Trends in Stage Performance; any version of DRAM 3201 previously offered with a different title) (Format: Lecture/ Workshop 3 Hours)

**DRAM 3301 (3.00 CR)****INTERCULTURAL THEATRE AND DRAMA**

**Prereq:** DRAM 1701; third-year standing in the Interdisciplinary Drama Program, or permission of the Program Director

This course investigates contrasting historical perspectives on interculturalism and examines dramatic literature, theatrical productions, and types of performance research as representative of different approaches to the bridging of cultures. It explores the contributions drama and theatre make to the evolution of individual and community identities, and engages topics such as cultural exchange, cultural imperialism, colonialism, cultural appropriation, cultural nationalism, ethno-centrism, cosmopolitanism, universalism, post-colonialism, diaspora, transnationalism, and cultural syncretism. (Format: Lecture 3 Hours) (Exclusion: DRAM 2991, 3991- Intercultural Theatre and Drama -15/WI, 16/FA)

**DRAM 3841 (3.00 CR)****MODERN CANADIAN DRAMA**

**Prereq:** DRAM 1701; 3 credits from ENGL at the 2000 level or third-year standing in the Interdisciplinary Drama Program; or permission of the Program Director

This course explores developments in Canadian theatre from the mid-1960s by looking at representative playwrights, plays, theatres, and movements. (Format: Lecture 3 hours) (Exclusion: ENGL 3991 Modern Canadian Drama)

**DRAM 3991 (3.00 CR)****SPECIAL TOPIC IN DRAMA**

**Prereq:** DRAM 1701; third-year standing in the Interdisciplinary Drama Program; or permission of the Program Director

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for DRAM 3991 more than once, provided the subject matter differs.] (Format: Variable)

**DRAM 4011 (3.00 CR)****ADVANCED THEATRICAL INTERPRETATION**

This course involves projects in areas such as acting, directing, writing, and design. Written and/or visual materials support artistic outcomes as appropriate. [Note 1: Students may register for DRAM 4011 more than once, provided the subject matter differs.] (Format: Independent Study)

**DRAM 4950 (6.00 CR)****INDEPENDENT STUDY IN DRAMA**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for DRAM 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**DRAM 4951 (3.00 CR)****INDEPENDENT STUDY IN DRAMA**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for DRAM 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**DRAM 4991 (3.00 CR)****SPECIAL TOPIC IN DRAMA**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for DRAM 4991 more than once, provided the subject matter differs.] (Format: Variable)

**ONE CREDIT Production Practicum:**

**Prereq:** DRAM 1701; 3 credits from DRAM 2161, 3161 (may be taken as a co-requisite).

This course allows students to focus on developing skills and practical experience in areas of theatre production such as costume or set design and construction, lighting, stage-management, or front-of-house. [Note 1: Students registered for DRAM 3011 or 4011 projects related to a Motyer-Fancy Theatre production, as well as students engaged as paid theatre assistants, cannot also receive Production Practicum credit for that same production work.] (Format: Experiential)

DRAM 2669

DRAM 3669

DRAM 4669

## ECONOMICS

Every society must in some way determine what goods and services its members will produce, and to what extent each person can claim a portion of this flow of output. Our Canadian society relies primarily, although not completely, upon a system of variable money prices, a market economy, to resolve the questions of production and distribution.

Much of the study of economics consists of examining the operation of market economies to discover regularities of behaviour, ultimately in the expectation that through better understanding society will be able to remedy undesirable results and achieve better ones. Such a study logically includes looking at the historical evolution of modern economies (economic history), the evolution of thinking about economic systems (economic thought), the operation of markets (microeconomics), the aggregate flows of output (macroeconomics), the operation of the money system (money and banking), economic relationships with other societies (international economics) and so on. Instruction on such topics emphasizes understanding.

To achieve understanding means moving into the seemingly abstract realm of theory, analysis and technical terms. Little attention is paid to description or factual memorization. Students planning to concentrate on economics will find mathematics a valuable complementary study. Those who dislike mathematics or who do poorly in it usually encounter difficulties in economics.

### Disciplinary B.A. Programs

#### MINOR in Economics is 24 credits earned as follows:

- 6 from ECON 1001 and 1011
- 18 from Economics, including 6 from the 3/4000 level, chosen in consultation with the Program Advisor

#### MAJOR in Economics is 60 credits earned as follows:

- 21 from ECON 1001, 1011, 2001, 2011, 2101, 2111, 2701
- 3 from ECON 1701, MATH 2311
- 3 from MATH 1111, 1151
- 6 from COMM 2101, COMP 1631, MATH 1121, 2221
- 18 from Economics at the 3/4000 level
- 9 from complementary courses, chosen in consultation with the Program Advisor

#### Note:

1. COMM 3411, 3501, 4141, 4501, and 4521 may be designated as Economics electives for students taking a Major, Minor or Honours in Economics or the Major or Honours in Philosophy, Politics, and Economics.
2. ECON 3201, 3211, 3301, 3601, 3711, 3921, 4501, 4511, 4611, 4621, 4700, 4801, 4811, 4821, 4990, and COMP 3851 are Commerce electives for students taking a Bachelor of Commerce or a Major or Minor in Commerce.
3. Students considering upper level courses in Economics are encouraged to complete MATH 1111 and MATH 1121 early in their degree programs.

**Note:** See also the Interdisciplinary Minor in International Economics and Business

## HONOURS PROGRAM

Honours in Economics may be completed in both Arts and Commerce Degree Programs. For Honours under the B.A. please see the section below; for Honours under the B.Comm. please see section 11.5.9.

Students who plan to pursue graduate studies in Economics are advised to include Economics 4700, 4801, 4811, 4821 and courses in Calculus, Linear Algebra (Mathematics 2221) and Statistics (Mathematics 3311, 3321) from the Mathematics Department. Other courses in Mathematics are also valuable. Students should seek advice from a member of the Department of Economics when deciding on a program of study.

### HONOURS in Economics is 72 credits earned as follows:

- 51 credits as in the first five lines of the Major, plus:
- 12 from ECON 4001, 4011, 4700, 4801, 4811, 4821, 4990
- 9 from Economics at the 3/4000 level, or PHIL 2611, 3631, or Mathematics and Computer Science (except MATH 1011, 1251 and 2321; and COMP 1631) chosen in consultation with the Economics Program Advisor

### Interdisciplinary B.A. Program

### B.A. HONOURS in Economics and Mathematics is 81 credits earned as follows:

- 21 from ECON 1001, 1011, 2001, 2011, 2101, 2111, 2701
- 18 from MATH 1111, 1121, 2111, 2121, 2211, 2221
- 3 from ECON 1701, MATH 2311
- 3 from COMP 1631
- 6 from MATH 3111, 3211
- 12 from ECON 4700, 4801, 4811, 4821
- 6 from ECON at the 3/4000 levels which may include ECON 4990
- 12 from MATH at the 3/4000 level

## ECONOMICS COURSES

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following courses can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees: ECON 1001, 1011

### ECON 1001 (3.00 CR) PRINCIPLES OF MICROECONOMICS

This course introduces the study of Economics and the nature of microeconomic problems including the behaviour of consumers and firms in different markets, and the results of their actions as manifested in production, costs, and prices, market efficiency, and market failure. [Note 1: Students should normally have completed a university preparatory level course in Mathematics.] (Format: Lecture 3 Hours, Tutorial 1 Hour) (Distribution: Social World-c)(Exclusion: ECON 1000)

### ECON 1011 (3.00 CR) PRINCIPLES OF MACROECONOMICS

This course introduces the study of Economics and the nature of macroeconomic problems such as the determinants of the level of national income, employment, and the accompanying stabilization problems and policies. Topics also include money and banking, international trade, exchange rates, and the problems of inflation. [Note 1: Students should normally have completed a university preparatory level course in Mathematics.] (Format: Lecture 3 Hours, Tutorial 1 Hour) (Distribution: Social World-c)(Exclusion: ECON 1000)

### ECON 1701 (3.00 CR) OBSERVATIONAL DATA ANALYSIS

This course introduces students to statistical concepts used in the examination of data generated in uncontrolled environments with particular emphasis on investigating social and economic phenomena. Topics include data collection, descriptive statistics, probability concepts, statistical estimation, and hypothesis testing. (Format: Lecture 3 Hours)

### ECON 1991 (3.00 CR) SPECIAL TOPIC IN ECONOMICS

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for ECON 1991 more than once, provided the subject matter differs.] (Format: Variable)

### ECON 2001 (3.00 CR) INTERMEDIATE MICROECONOMICS I: EXCHANGE AND CONSUMER DECISIONS

**Prereq:** ECON 1001; or permission of the Department

This course presents microeconomic theory and its applications relating to consumer decisions. Topics covered include: scope and method of microeconomics; demand and consumer behaviour; choices under uncertainty; intertemporal decisions making; asymmetric information; externalities and public goods; and exchange equilibrium and economic efficiency. (Format: Lecture 3 Hours) (Exclusion: Any version of ECON 2001 previously offered with a different title)

### ECON 2011 (3.00 CR) INTERMEDIATE MICROECONOMICS II: MARKETS AND PRODUCER DECISIONS

**Prereq:** ECON 1001; or permission of the Department

This course presents microeconomic theory and its applications relating to producer decisions. Topics include: the theory of production and cost; profit maximization and competitive supply; pricing with market power; monopoly and monopsony; monopolistic competition and oligopoly; game theory and strategic interactions; markets for inputs and income distribution; markets and asymmetric information; analysis of markets and effects of government policies; and the theory of the firm and team production. (Format: Lecture 3 Hours) (Exclusion: any version of ECON 2011 previously offered with a different title)

**ECON 2101 (3.00 CR)**  
**INTERMEDIATE MACROECONOMICS I**

**Prereq:** ECON 1011; or permission of the Department

This course presents theories of national income, employment, inflation, balance of payments, and stabilization policy within the framework of macroeconomic models of an open economy. It focuses on short-run macroeconomic analysis and policy. (Format: Lecture 3 Hours)

**ECON 2111 (3.00 CR)**  
**INTERMEDIATE MACROECONOMICS II**

**Prereq:** ECON 2101; or permission of the Department

This course is a continuation of macroeconomic analysis in the context of the long-run. Topics include long-run consumption functions, investment and real business cycles, economic growth and productivity, and the monetary theories of the classical economists, Keynes, and Friedman. (Format: Lecture 3 Hours)

**ECON 2301 (3.00 CR)**  
**ECONOMIC ISSUES IN CANADIAN PUBLIC POLICY I**

**Prereq:** 6 credits from Social Sciences; or permission of the Department

This course introduces analytical methods used by social scientists examining Canadian social and economic policy by studying issues that arise perennially. Topics may include: unemployment and government policy, Canada and the global economy, social security reform, regionalism, education policy, health policy, and inflation. (Format: Lecture 3 Hours) (Exclusion: Any version of ECON 2301 previously offered with a different title)

**ECON 2311 (3.00 CR)**  
**ECONOMIC ISSUES IN CANADIAN PUBLIC POLICY II**

**Prereq:** 6 credits from Social Sciences; or permission of the Department

This course provides a critical study of current debates on economic and social policy in Canada. (Format: Lecture 3 Hours) (Exclusion: Any version of ECON 2311 previously offered with a different title)

**ECON 2701 (3.00 CR)**  
**INTRODUCTION TO ECONOMETRICS**

**Prereq:** ECON 1001; ECON 1011; 3 credits from ECON 1701, MATH 2311; or permission of the Department

This course introduces statistical tools for handling data generated in uncontrolled environments and the techniques involved in their use. Topics include estimation and inference of single- and multi-variable regression models, large sample techniques, dummy variables, heteroskedasticity, and an introduction to times series. (Format: Lecture 3 Hours) (Exclusion: Any version of ECON 2701 previously offered with a different title)

**ECON 2991 (3.00 CR)**  
**SPECIAL TOPIC IN ECONOMICS**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for ECON 2991 more than once, provided the subject matter differs.] (Format: Variable)

**ECON 3101 (3.00 CR)**  
**LAW AND ECONOMICS**

**Prereq:** ECON 1001; ECON 1011; or permission of the Department

This course introduces the economic analysis of law, the role of economics in legal debates, and the role of law in economic exchange. It examines economic aspects of social and legal issues and policies in regional, national and international contexts. Topics may include: property, contracts, torts, environmental law, and the economics of crime and punishment. (Format: Lecture 3 Hours)

**ECON 3111 (3.00 CR)**  
**HEALTH ECONOMICS**

**Prereq:** ECON 1001; ECON 1011; or permission of the Department

This course introduces economic issues in the health care system. It examines applications of economic principles and empirical analysis to the study of health and health policies in Canadian and International contexts. Topics may include: the demand for health care, the supply of health services through health practitioners and hospitals, the economic effects of health insurance, pharmaceutical markets, economic evaluation techniques for health, health technology assessment and public policy formulation. (Format: Lecture 3 Hours)

**ECON 3201 (3.00 CR)**  
**MONEY, BANKING, AND THE CANADIAN FINANCIAL SYSTEM: MICROECONOMIC PERSPECTIVES**

**Prereq:** ECON 1001; ECON 1011; or permission of the Department

This course covers microeconomic aspects of the Canadian financial system. One main focus of the course is on financial instruments, the markets in which they are traded, and the economic role that these markets play. The other main focus is on Canadian financial institutions, the activities in which they engage, and the economic roles they play. [Note 1: Counts as a Commerce elective for students taking a Bachelor of Commerce or a Major or Minor in Commerce.] (Format: Lecture 3 Hours)

**ECON 3211 (3.00 CR)**  
**MONEY, BANKING, AND THE CANADIAN FINANCIAL SYSTEM: MACROECONOMIC PERSPECTIVES**

**Prereq:** ECON 1001; ECON 1011; or permission of the Department

This course covers macroeconomic aspects of the Canadian financial system. These include central banking, and the conduct and mechanics of monetary policy. The international financial system is also covered. [Note 1: Counts as a Commerce elective for students taking a Bachelor of Commerce or a Major or Minor in Commerce.] (Format: Lecture 3 Hours)



**ECON 3301 (3.00 CR)****INTRODUCTION TO GAME THEORY**

**Prereq:** 6 credits from ECON 1001, 1011; or 3 credits from MATH 1111, 1151; or permission of the Department

This course introduces the basic tools and methods of Game Theory. Game Theory is a mathematically oriented approach to understanding the strategic interaction of self-interested agents. Emphasis is on non-cooperative games. Topics include backwards induction, iterative deletion of dominated strategies, Nash equilibrium, repeated games, some equilibrium refinements, evolutionary game theory, and Bayesian Nash equilibria. [Note 1: This course is cross-listed as MATH 3301 and therefore may count as 3 credits in either discipline. Note 2: Counts as a Commerce elective for students taking a Bachelor of Commerce or a Major or Minor in Commerce] (Format: Lecture 3 hours, Laboratory 1 Hour)

**ECON 3401 (3.00 CR)****SURVEY RESEARCH METHODS**

**Prereq:** 6 credits from Social Sciences; 3 credits from ECON 1701, MATH 2311, PSYC 2011, GENS 2431, BIOL 3701; or permission of the Department

This course introduces students in social science disciplines to survey research methods. This involves the complete survey development process, including the development and administration of a survey questionnaire, sample selection, statistical analysis, and collaboration with survey developers and parties interested in the survey administration. It also covers presentation techniques (Format: Lecture 3 Hours) (Exclusion: ECON 4981 Data Analysis I; ECON 4981 Data Analysis II; ECON 4981 Data and Research)

**ECON 3501 (3.00 CR)****ECONOMIC GROWTH AND TECHNOLOGICAL CHANGE**

**Prereq:** ECON 1001; ECON 1011; or permission of the Department

This course covers economic theories of economic growth and technological change and their application in the study of the historical evolution of the world economy. Historical sections of the course selectively cover materials on Canada, the US, Europe, Asia, and the developing world. (Format: Lecture 3 Hours)

**ECON 3601 (3.00 CR)****PRINCIPLES OF COST-BENEFIT ANALYSIS**

**Prereq:** ECON 2001; or permission of the Department

This course examines the use of economic theory in the assessment of public sector regulations and projects. Topics include the measurement of social costs and social benefits, shadow pricing, and the choice of discount rate. The course relies heavily on concrete examples such as transportation infrastructure, medical services, environmental protection and hydro development. [Note 1: Counts as a Commerce elective for students taking a Bachelor of Commerce or a Major or Minor in Commerce.] (Format: Lecture 3 Hours)

**ECON 3711 (3.00 CR)****LABOUR MANAGEMENT RELATIONS**

**Prereq:** ECON 1001; ECON 1011; or permission of the Department  
An introduction to the history and institutions of the North American industrial relations system. Topics include: labour management techniques used by firms; unions and union strategies; government regulation of pay and working conditions; and the structure of collective bargaining. [Note 1: Counts as a Commerce elective for students taking a Bachelor of Commerce or a Major or Minor in Commerce.] (Format: Lecture 3 Hours)

**ECON 3721 (3.00 CR)****LABOUR ECONOMICS**

**Prereq:** ECON 2001; or permission of the Department

This course introduces labour economics. Topics include the demand and supply of labour, the Canadian labour market and income distribution, unemployment, poverty, and discrimination in Canada. (Format: Lecture 3 Hours)

**ECON 3801 (3.00 CR)****ENVIRONMENTAL ECONOMICS**

**Prereq:** ECON 1001; ECON 1011; or permission of the Department  
This course presents the application of economic analysis in the study of environmental problems. It examines when and why markets often fail to allocate sufficient resources to environmental conservation, and critically assess different policy instruments available to correct for the fundamental "market failure". Using the analytical methods, it examines the following types of policies: measures to control air and water pollution, the disposal of hazardous wastes, the protection of endangered species, and the control of cross border pollution, including the Canadian "Green Plan". (Format: Lecture 3 Hours)

**ECON 3821 (3.00 CR)****NATURAL RESOURCE ECONOMICS**

**Prereq:** ECON 2001; 3 credits from MATH 1111, 1151; or permission of the Department

This course examines the application of economic analysis to questions of management, use, and conservation of natural resources. It exposes students to economic theories used in the study of renewable and non-renewable resource industries. It pays particular attention to resource industries important to the Atlantic Canadian economy (the fishery, forestry, agriculture, mining, and energy). (Format: Lecture 3 Hours)

**ECON 3901 (3.00 CR)****INTERNATIONAL TRADE**

**Prereq:** ECON 1001; ECON 1011; or permission of the Department

This course examines issues such as the pure economic theory of international trade and important institutions (the FTA, NAFTA, the EC, GATT, etc.), plus problems and policies associated with trade in goods and services. It also examines issues such as free trade and protectionism and the gains and losses resulting from globalization. (Format: Lecture 3 Hours)

**ECON 3921 (3.00 CR)**  
**INTERNATIONAL FINANCE**

**Prereq:** ECON 1001; ECON 1011; or permission of the Department  
 This course examines the financial side of international trade. The focus is on exchange rates, the balance of international payments, alternative means of adjustment to shocks in the international economy, and international monetary arrangements. [Note 1: Counts as a Commerce elective for students taking a Bachelor of Commerce or a Major or Minor in Commerce.] (Format: Lecture 3 Hours)

**ECON 3991 (3.00 CR)**  
**SPECIAL TOPIC IN ECONOMICS**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for ECON 3991 more than once, provided the subject matter differs.] (Format: Variable)

**ECON 4001 (3.00 CR)**  
**MODES OF CLASSICAL ECONOMIC THOUGHT**

**Prereq:** ECON 1001; ECON 1011; 6 credits from ECON 2001, 2011, 2101, 2111, or 6 credits from ECON at the 3/4000 level, or 6 credits from PHIL 3000, 3221, 3231, 3250, 3301, 3311, 3311, 4111, 4211, or 6 credits from POLS 3001, 3011, 4000, 4011; or permission of the Department

This course focuses on the work of classical economists (especially Adam Smith, David Ricardo, and Thomas Malthus) and the economic theories of Karl Marx. (Format: Lecture 3 Hours)

**ECON 4011 (3.00 CR)**  
**MODES OF ECONOMIC THOUGHT**

**Prereq:** ECON 1001; ECON 1011; 6 credits from ECON 2001, 2011, 2101, 2111, or 6 credits from ECON at the 3/4000 level, or 6 credits from PHIL 3000, 3221, 3231, 3250, 3301, 3311, 4111, 4211, or 6 credits from POLS 3001, 3011, 4000, 4011; or permission of the Department  
 This course examines the historical origins of neo-classical, Austrian and Keynesian economic thought. (Format: Lecture 3 Hours)

**ECON 4501 (3.00 CR)**  
**PUBLIC FINANCE: TAXATION AND FISCAL FEDERALISM**

**Prereq:** ECON 2001; ECON 2011; or permission of the Department  
 This course examines positive and normative approaches to taxation and fiscal federalism with special emphasis on issues in Canadian Public Finance. [Note 1: Counts as a Commerce elective for students taking a Bachelor of Commerce or a Major or Minor in Commerce.] (Format: Lecture 3 Hours)

**ECON 4521 (3.00 CR)**  
**NORMATIVE ECONOMICS**

**Prereq:** 12 credits from ECON 2001, 2011, 2101, 2111; or 3 credits from ECON at the 2/3/4000 level and 6 credits from ECON at the 3/4000 level; or permission of the Department

This course examines the criteria for making judgments on economic performance. It introduces and evaluates notions of efficiency, fairness, and distributive justice in economic outcomes. Topics include the measurement of economic inequality and poverty, value judgments in cost-benefit analysis, consistent collective decision making, and effective means of income redistribution. [Note 1: Counts as a Commerce elective for students taking a Bachelor of Commerce or a Major or Minor in Commerce.] (Format: Lecture 3 Hours)

**ECON 4531 (3.00 CR)**  
**ECONOMIC GROWTH AND DEVELOPMENT: JAPAN AND EAST ASIA**

**Prereq:** 6 credits from ECON 1001, 2111; or ECON 3501; or permission of the Department

This course focuses on the economic performance of the economies of Japan, China, and other areas of eastern Asia, emphasizing historical and major current events. (Format: Lecture 3 Hours) (Exclusion: ECON 3531)

**ECON 4551 (3.00 CR)**  
**INTERNATIONAL DEVELOPMENT**

**Prereq:** 6 credits from ECON 1001, 2111; or ECON 3501; or permission of the Department

This course focuses on differences in the patterns of economic development in the world economy. It examines the developing world, national and international policies designed to improve the global distribution of income, and the economic development policies of the World Bank, the International Monetary Fund, and the United Nations. (Format: Lecture 3 Hours) (Exclusion: ECON 3551)

**ECON 4611 (3.00 CR)**  
**INDUSTRIAL ORGANIZATION: THEORY**

**Prereq:** ECON 2001; ECON 2011; 3 credits from MATH 1111, 1151; or permission of the Department

This course provides an overview of central theories of industrial organization, examining market power, the theory of the firm, and strategic behaviour, within classic and dynamic oligopoly theoretical frameworks. It makes explicit use of game theoretic techniques where appropriate. Topics may include: collusive and competitive behaviour, non-linear pricing, commitment and repeated games, and entry deterrence. (Format: Lecture 3 Hours) (Exclusion: ECON 3611)

**ECON 4621 (3.00 CR)**  
**INDUSTRIAL ORGANIZATION: POLICY**

**Prereq:** ECON 2001; ECON 2011; 3 credits from MATH 1111, 1151; or permission of the Department

This course examines the economics of vertical and horizontal constraints. It provides an introduction to regulatory economics and Canadian and International competition policy. Topics may include policy issues concerning the control of mergers, monopoly, predatory pricing, collusion, resale price maintenance, exclusive dealing, tying, and other contractual agreements, including restrictions on contracting agents. (Format: Lecture 3 Hours) (Exclusion: ECON 3621)

**ECON 4700 (6.00 CR)****ECONOMETRICS**

**Prereq:** 6 credits from MATH 2221, ECON 2701; or 9 credits from MATH 2221, 3311, 3321; or permission of the Department

This course provides an introduction to the measurement of economic relationships. [Note 1: Counts as a Commerce elective for students taking a Bachelor of Commerce or a Major or Minor in Commerce.] (Format: Lecture 3 Hours)

**ECON 4801 (3.00 CR)****ADVANCED MICROECONOMIC THEORY**

**Prereq:** ECON 2001; ECON 2011; ECON 2101; ECON 2111; MATH 1121; or permission of the Department

The course develops tools and techniques for analyzing problems in microeconomics. These include modern theories of the consumer and of the firm, general equilibrium, and welfare theorems. [Note 1: Counts as a Commerce elective for students taking a Bachelor of Commerce or a Major or Minor in Commerce. Note 2: Although not required, the Economics Department recommends that students complete MATH 2111 and MATH 2221 prior to undertaking ECON 4801. Note 3: Honours students who wish to pursue graduate studies in economics are strongly advised to take this course.] (Format: Lecture 3 Hours) (Exclusion: Any version of ECON 4801 previously offered with a different title)

**ECON 4811 (3.00 CR)****ADVANCED MACROECONOMIC THEORY**

**Prereq:** ECON 4801; or permission of the Department

This course introduces many of the models that form the foundation of modern macroeconomics, including growth, network, and search-and-matching models. The core organizing principle of the course is the concept of general equilibrium, emphasizing tools and techniques for deriving equilibrium properties of the models. [Note 1: Counts as a Commerce elective for students taking a Bachelor of Commerce or a Major or Minor in Commerce. Note 2: Although not required, the Economics Department recommends that students complete MATH 2111 and MATH 2221 prior to undertaking ECON 4801. Note 3: Honours students who wish to pursue graduate studies in economics are strongly advised to take this course.] (Format: Lecture 3 Hours) (Exclusion: Any version of ECON 4811 previously offered with a different title)

**ECON 4821 (3.00 CR)****UNCERTAINTY AND STRATEGY IN ECONOMICS**

**Prereq:** ECON 2001; ECON 2011; ECON 2101; ECON 2111; or permission of the Department

The course examines the roles played by uncertainty and asymmetric information in the allocation of resources. It also uses tools of probability theory to examine strategic interaction. Honours students who wish to pursue graduate studies in economics are strongly advised to take this course. [Note 1: Counts as a Commerce elective for students taking a Bachelor of Commerce or a Major or Minor in Commerce.] (Format: Lecture 3 Hours)

**ECON 4950 (6.00 CR)****INDEPENDENT STUDY IN ECONOMICS**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for ECON 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**ECON 4951 (3.00 CR)****INDEPENDENT STUDY IN ECONOMICS**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for ECON 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**ECON 4990 (6.00 CR)****HONOURS THESIS**

A student fulfilling requirements for an Honours degree may elect to undertake a research and writing project of acceptable scope and quality under the supervision of faculty members in Economics. The student must submit a formal proposal to the Department prior to registration. [Note 1: Written permission of the Department required. Note 2: Counts as a Commerce elective for students taking a Bachelor of Commerce or a Major or Minor in Commerce.] (Format: Independent Study/Thesis)

**ECON 4991 (3.00 CR)****SPECIAL TOPIC IN ECONOMICS**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for ECON 4991 more than once, provided the subject matter differs.] (Format: Variable)

## ENGLISH LITERATURES

The majority of students take at least one English course during their undergraduate career. While the curriculum focuses on literary study, students are encouraged to develop an appreciation for the English language that will stand them in good stead in all other fields of academic and professional endeavour. English is, in fact, a central study. The language is every student's essential instrument of understanding and expression, and the subject-matter of the literature touches on every area of human knowledge and experience. More and more, under the increasing threat in our society to the Humanities and the values they embody, the vital importance of English must be stressed. With urgent reason, English has become "the central humanity."

### GENERAL DESCRIPTION OF THE ENGLISH PROGRAM

The 1000 level series courses offer an introduction to a variety of approaches to the reading of and writing about literature, using texts from a range of genres and periods. At the 2000 level, students may choose from introduction to literary periods courses, Shakespeare course, and Canadian and American literature courses. These courses provide foundation for the 3000 level courses. At the 3000 level students are offered courses in traditional periods of English literature, various national literatures including Canadian and American, Postcolonial literature, dramatic literature, creative writing, film, genre and cultural studies.

Normally taken only in the fourth year when students are best equipped to benefit from them, the "Selected Topics" courses of the 4000 series provide an opportunity for students and faculty to develop their special interests. While various topics are offered from year to year at the 4000 level, students can pursue individual study and research under supervision (4951: Independent Study).

### SPECIAL REGISTRATION PROVISIONS 1000 AND 2000 SERIES

English 1111, 1121, 1501, and 1801 are courses that can be used for the Arts distribution requirement for the Bachelor of Arts and Bachelor of Science degrees. These courses may not be used for distribution in combination with DRAM/ENGL 1701. Students who wish to pursue courses in English at the 2000 level and above, are required to take English 1201; ENGL 1201 cannot be used for the Arts distribution requirement.

### DEPARTMENTAL ADVICE

At registration, students should consult with Departmental Program Advisors in the selection of courses.

### Disciplinary B.A. Programs

#### MINOR in English is 24 credits earned as follows:

- 3 from ENGL 1201
- 0 to 3 from ENGL 1501, 1701, 1801
- 6 to 9 from English at the 2000 level
- 9 to 15 from English at the 3/4000 level, chosen in consultation with the Program Advisor

#### MAJOR in English is 60 credits earned as follows:

- 3 from ENGL 1201
- 0 to 3 from ENGL 1501, 1701, 1801
- 6 to 12 from English at the 2000 level including 2201 and 2301
- 24 to 33 from English at the 3/4000 level including:
  - a) 6 credits from the first four subject areas listed below (Medieval to 18th Century), and
  - b) credits from at least five of the eleven subject areas below.
- 18 credits from complementary courses in Arts and Letters and Humanities, chosen in consultation with the Program Advisor

### HONOURS PROGRAM

Students with a strong interest in and aptitude for the subject may wish to seek an Honours Degree in English. The requirements are sixty-six English credits, as outlined below. Students should contact the Honours Co-ordinator to do Honours in January of the year in which they have third year standing.

#### HONOURS in English (Course Option) is 66 credits earned as follows:

- 42 credits as in the first four lines of the Major, including ENGL 2211
- 6 from ENGL 3871, 3881
- 6 from English 4000-level senior seminar course
- 12 from English at the 3/4000 level, including 3 credits each from two additional subject areas (for a total in the Honours program of seven subject areas)

#### HONOURS in English (Thesis Option) is 66 credits earned as follows:

- 42 credits as in the first four lines of the Major, including ENGL 2211
- 6 from English 4990
- 18 from English at the 3/4000 level, including 3 credits each from two additional subject areas (for a total in the Honours program of seven subject areas)

Students are encouraged to take more than the minimal number of English courses required; this will give them a wider coverage of the subject. ("Core" selections often include the Shakespeare courses and one course in Canadian literature)

1. The subject areas and corresponding courses are as follows:
  - a) Medieval: 3011, 3021, 3241 (if appropriate), 4221 (if appropriate)
  - b) Renaissance: 3211, 3231, 3241 (if appropriate), 3311, 4221 (if appropriate)
  - c) 17th Century: 3351, 3361, 4221 (if appropriate)
  - d) 18th Century: 3411, 3421, 3431, 3451, 3711, 4221 (if appropriate)
  - e) 19th Century: 3451, 3461, 3481, 3491, 4231 (if appropriate)
  - f) Modern: 3511, 3521, 3551, 3941, 4231 (if appropriate)
  - g) Contemporary and Theoretical Studies: 3561, 3611, 3621, 3850, 3871, 3881, 3911, 3921, 3931, 3951, 4231 (if appropriate), 4921, 4931, 4941
  - h) American: 3711, 3721, 3731, 3741, 4701, 4231 (if appropriate)

- i) Canadian: 3801, 3811, 3821, 3831, 3841, 4801
  - j) Postcolonial: 3751, 3761, 3771, 3781, 4231 (if appropriate), 4801 (if appropriate), 4941 (if appropriate)
  - k) Literature by Women: 3651, 3661, 4921 (if appropriate)
- Note: Any course may be counted in one category only. ENGL 4951 and 4990 fall outside the subject areas.
2. Each year the English Department prints, and publishes on the web, a Handbook which includes a detailed syllabus and the texts prescribed for each course offered in the English program in the current year, together with information on classes and assignments. Since it is impossible to offer in any one year all the courses listed here at the 2000, 3000 and 4000 level, students must use the Department's Handbook as their guide for the coming year.
  3. Students may allow up to 6 credits in English for: Drama 3151 "Acting and Directing," Drama 3161 "Principles of Methods of Interpretation," and Drama 3001 "Dramatic Theory."
  4. The Major or Minor in Drama. See Drama Entry

## ENGLISH COURSES

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following courses can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees: ENGL 1111, 1121, 1501, 1801  
DRAM/ENGL cross-listed courses (DRAM 1701) may not be used for distribution in combination with other English courses (ENGL 1111, 1121, 1501, 1801).

### ENGL 1111 (3.00 CR) LITERATURE, THE ARTS AND HUMANITIES

This course introduces the interrelationship between literature and social issues, focusing on the intersection of the discipline of English with other fields in the Arts and Humanities. It examines many of the major forms of English literature as encountered through discussions related to subjects such as the fine arts, religion, philosophy, history, and other fields in the Arts and Humanities. (Format: Lecture 3 Hours, Tutorials Time Arranged) (Distribution: Arts-a)

### ENGL 1121 (3.00 CR) LITERATURE, SCIENCE AND TECHNOLOGY

This course introduces the interrelationship between literature and social issues, focusing on topics related to the fields of Science and Technology. It examines English Literature and its interaction with scientific and technological subjects in past and present societies. (Format: Lecture 3 Hours, Tutorials Time Arranged) (Distribution: Arts-a)

### ENGL 1201 (3.00 CR) INTRODUCTION TO PRINCIPLES OF LITERARY ANALYSIS

This course, offered in several sections each year, introduces students to critical approaches to the reading of, and writing about, literature. Each section has its own reading list, set by the individual instructor and including a balanced representation of prose, fiction, poetry and drama, taken from a range of historical periods. [Note 1: Students who wish to pursue courses in English at the 2000 level and above must take ENGL 1201.] (Format: Lecture 3 Hours) (Exclusion: ENGL 1001)

### ENGL 1501 (3.00 CR) INTRODUCTION TO POETRY

This course introduces the elements of poetry, including image, figure, rhythm, and form, and surveys outstanding achievements in the English tradition of poetry. (Format: Lecture 3 Hours) (Distribution: Arts-a) (Exclusion: ENGL 2011)

### ENGL 1701 (3.00 CR) INTRODUCTION TO DRAMA STUDIES

This course introduces conventions, forms, and devices of drama as they emerge under, and respond to, specific theatrical and cultural conditions. [Note 1: This course is cross-listed as DRAM 1701 and may be taken as three credits in either discipline.] (Format: Lecture 3 Hours) (Distribution: Arts-a) (Exclusion: DRAM/ENGL 2021)

### ENGL 1801 (3.00 CR) INTRODUCTION TO PROSE FICTION

This course examines the two major prose genres of the novel and the short story; selected examples of representative forms introduce students to the range and variety of both genres. (Format: Lecture 3 Hours) (Distribution: Arts-a) (Exclusion: ENGL 2031; ENGL 2041)

### ENGL 1991 (3.00 CR) SPECIAL TOPIC IN ENGLISH

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for ENGL 1991 more than once, provided the subject matter differs.] (Format: Variable)

### ENGL 2201 (3.00 CR) LITERARY PERIODS TO 1800

**Prereq:** ENGL 1201; or permission of the Department

This course presents an intensive survey of English literary history from Anglo-Saxon times to the late eighteenth century as well as training in the research methods of the discipline. [Note 1: ENGL 2201 is mandatory for the Majors and Honours degrees.] (Format: Lecture 3 Hours) (Exclusion: ENGL 2001)

**ENGL 2211 (3.00 CR)**  
**INTRODUCTION TO SHAKESPEARE**

**Prereq:** ENGL 1201; 3 credits from ENGL 1501, 1701, 1801; or second-year standing in the Interdisciplinary Program in Drama; or permission of the Department

This course introduces students to a wide range of Shakespeare's plays. (Format: Lecture 3 Hours) (Exclusion: ENGL 2311; ENGL 2321; ENGL 3300)

**ENGL 2301 (3.00 CR)**  
**LITERARY PERIODS, 1800-PRESENT**

**Prereq:** ENGL 1201; or permission of the Department

This course presents an intensive survey of English literary history from the Romantic period to the present as well as training in the research methods of the discipline. [Note 1: ENGL 2301 is mandatory for the Majors and Honours degrees.] (Format: Lecture 3 Hours)

**ENGL 2701 (3.00 CR)**  
**INTRODUCTION TO AMERICAN LITERATURE**

**Prereq:** ENGL 1201; or permission of the Department

This course offers students an introductory survey of American writing from the colonial period to the present. (Format: Lecture 3 Hours)

**ENGL 2801 (3.00 CR)**  
**INTRODUCTION TO CANADIAN LITERATURE**

**Prereq:** ENGL 1201; or permission of the Department

This course presents an introductory overview of Canadian literature from its beginnings to the present. (Format: Lecture 3 Hours) (Exclusion: ENGL 2800)

**ENGL 2991 (3.00 CR)**  
**SPECIAL TOPIC IN ENGLISH**

**Prereq:** ENGL 1201; or permission of the Department

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for ENGL 2991 more than once, provided the subject matter differs.] (Format: Variable)

**ENGL 3011 (3.00 CR)**  
**SURVEY OF MEDIEVAL LITERATURE**

**Prereq:** ENGL 2201; 3 credits from ENGL at the 2000 level; or permission of the Department

A study of selected literary texts produced in England from the fifth century to the fifteenth century. Anglo-Saxon, Anglo-Norman and Celtic texts will be read in modern translations, Middle-English texts will be read in the original. Major texts and authors such as Beowulf, the Anglo-Saxon elegies, Chaucer, Lydgate and Malory will be included along with anonymous texts. (Format: Lecture 3 Hours) (Exclusion: ENGL 3011 Anglo-Saxon and Medieval Literature)

**ENGL 3021 (3.00 CR)**  
**MIDDLE-ENGLISH LITERATURE**

**Prereq:** ENGL 3011; or permission of the Department

This course will concentrate on Middle-English literature produced in the twelfth to the fifteenth centuries. Prose and poetry genres, including lyrics, romances, dream visions and frame narratives may be studied in conjunction with a specific theme or subject. The texts will be read in the original Middle-English language. (Format: Lecture 3 Hours) (Exclusion: ENGL 3021 Later Medieval Literature)

**ENGL 3211 (3.00 CR)**  
**ADVANCED STUDIES IN SHAKESPEARE**

**Prereq:** 3 credits from ENGL 2211, 3311; 3 credits from ENGL at the 2000 level; or permission of the Department

A study of a selected number of Shakespeare's plays at an advanced level, requiring students' engagement with current issues in Shakespearean scholarship and criticism. (Format: Lecture 3 Hours) (Exclusion: ENGL 3300)

**ENGL 3231 (3.00 CR)**  
**SIXTEENTH CENTURY LITERATURE**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course will examine development of literary forms and genres in the English Renaissance. It will provide an overview to the non-dramatic literary developments in the 16th Century, and will provide samples of the tremendous range of literature being produced in the Tudor period. (Format: Lecture 3 Hours)

**ENGL 3241 (3.00 CR)**  
**MAJOR TEXTS IN EARLY ENGLISH LITERATURE**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course will examine a major text, genre or theme from the Medieval and Renaissance periods. Topics will rotate from a selection of long texts and long text-based genres. Examples of such texts are: Beowulf, The Canterbury Tales, Piers Plowman, Morte D'Arthur, Sir Gawain and the Green Knight, The Faerie Queene, and Arcadia. [Note 1: Please contact the English Department for the specific subject for each year.] (Format: Lecture 3 Hours)

**ENGL 3311 (3.00 CR)**  
**ENGLISH DRAMA TO 1642**

**Prereq:** ENGL/DRAM 1701; 3 credits from ENGL at the 2000 level or third-year standing in the Interdisciplinary Drama Program; or permission of the Department

A study of English dramatic literature and production, excluding Shakespeare, from the Middle Ages to the closing of the theatres in 1642. (Format: Lecture 3 Hours) (Exclusion: ENGL 3100; ENGL 3111; ENGL 3121)

**ENGL 3351 (3.00 CR)**  
**LITERATURE OF THE EARLY SEVENTEENTH CENTURY**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

A study of the poetry and prose of the early seventeenth century, focusing on the work of authors such as Donne, Jonson, and Herbert. (Format: Lecture 3 Hours) (Exclusion: ENGL 3350)

**ENGL 3361 (3.00 CR)****LITERATURE AND THE ENGLISH REVOLUTION**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

A study of the poetry and prose which emerged from the political, religious, and social revolutions of the mid-seventeenth century, including the work of Marvell, Milton, and Bunyan. (Format: Lecture 3 Hours) (Exclusion: ENGL 3350)

**ENGL 3411 (3.00 CR)****RESTORATION AND AUGUSTAN LITERATURE**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course examines British writing of the Restoration and early Augustan periods (1660-1720). The variety of genres and authors to be studied includes early novels by Behn, Defoe, and Swift, formal verse satire by Rochester and Pope, verse epistles and lyrics by Philips and Finch, and diaries and memoirs by Pepys and Manley. (Format: Lecture 3 Hours) (Exclusion: ENGL 3400)

**ENGL 3421 (3.00 CR)****LITERATURE IN THE AGE OF ENLIGHTENMENT**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course examines British writing from the Age of Reason to the Age of Sensibility (1720-1780). The range of genres and authors to be studied includes satires by Pope and Johnson, novels by Haywood, Fielding, Sterne, and Burney, lyric odes by Carter, Collins, and Gray, and the first Gothic novel by Walpole. (Format: Lecture 3 Hours) (Exclusion: ENGL 3400)

**ENGL 3431 (3.00 CR)****RESTORATION AND EIGHTEENTH CENTURY DRAMA**

**Prereq:** ENGL/DRAM 1701; 3 credits from ENGL at the 2000 level or third-year standing in the Interdisciplinary Drama Program; or permission of the Department

This courses examines the major British playwrights and dramatic forms emerging between the time of the Restoration of the Monarchy (1660) and the end of the eighteenth century. Works will be assessed both in light of their contemporary theatrical conditions and as cultural artifacts of their respective ages. (Format: Lecture 3 Hours) (Exclusion: ENGL 3430)

**ENGL 3451 (3.00 CR)****LITERATURE IN THE AGE OF ROMANTICISM**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course examines British writing from 1780 to 1810, a period of profound cultural transformation under the impact of the American, French, and Industrial Revolutions. Romanticism was one response to this context, and the course will explore representative examples from the poetry of Blake, Smith, Coleridge, and William Wordsworth. Other genres to be studied will include the Gothic novel, the Jacobin novel, diaries, and epistolary essays. (Format: Lecture 3 Hours) (Exclusion: ENGL 3451 Literature in the Age of Revolution)

**ENGL 3461 (3.00 CR)****LITERATURE OF THE REGENCY**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course examines British writing of the early nineteenth century from the Regency through the reign of George IV (1810-1830). The literary genres to be studied will include Romantic poetry, Regency satire, the historical novel, and the novel of manners, written by such authors as Byron, Austen, Keats, the Shelleys, Scott, Hemans, and Landon. (Format: Lecture 3 Hours) (Exclusion: ENGL 3450)

**ENGL 3481 (3.00 CR)****EARLY VICTORIAN LITERATURE**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course examines British writing from the 1830s to the 1860s. Genres and authors to be studied include the novels, essays, and poems of such authors as Carlyle, the Brontes, Tennyson, Gaskell, Dickens, Elizabeth Barrett Browning, and Robert Browning. (Format: Lecture 3 Hours) (Exclusion: ENGL 3450)

**ENGL 3491 (3.00 CR)****LATE VICTORIAN LITERATURE**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course examines British writing at the zenith of the British Empire (1867-1900). The variety of genres and authors to be studied includes novels by Eliot, Thackeray and Hardy, essays by Arnold, Ruskin, and Pater, and poems by Webster, Field, Arnold, Hopkins, the pre-Raphealites, Christina Rossetti, and Wilde. (Format: Lecture 3 Hours) (Exclusion: ENGL 3450)

**ENGL 3511 (3.00 CR)****EARLY TWENTIETH-CENTURY BRITISH LITERATURE**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course examines British writing from the turn of the twentieth century to the end of the Second World War. Although this period saw the formation of literary modernism, many British authors continued to write in more conventional modes. Many writers sought to understand how Western culture and civilization could allow for the destruction caused by total war. (Format: Lecture 3 Hours) (Exclusion: ENGL 3511 The Rise of Modernism)

**ENGL 3521 (3.00 CR)****BRITISH LITERATURE SINCE 1945**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course examines various British literary works written since the Second World War. While some writers continued to experiment with style and form, other post-war British writers retreated from the experimentalism of the major modernists. (Format: Lecture 3 Hours)(Exclusion: Any version of ENGL 3521 previously offered with another title)

**ENGL 3551 (3.00 CR)****THE DEVELOPMENT OF MODERN DRAMA**

**Prereq:** ENGL/DRAM 1701; 3 credits from ENGL at the 2000 level or third-year standing in the Interdisciplinary Drama Program; or permission of the Department

A study of representative modern plays including works by Pirandello, Brecht, and Beckett chosen to illustrate the major developments in dramatic literature and production in the twentieth century. (Format: Lecture 3 Hours) (Exclusion: ENGL 3500)

**ENGL 3561 (3.00 CR)****CONTEMPORARY DRAMA**

**Prereq:** ENGL/DRAM 1701; 3 credits from ENGL at the 2000 level or third-year standing in the Interdisciplinary Drama Program; or permission of the Department

A study of selected contemporary plays and playwrights. (Format: Lecture 3 Hours) (Exclusion: ENGL 3500)

**ENGL 3611 (3.00 CR)****DRAMA, THEATRE, AND SOCIETY**

**Prereq:** ENGL/DRAM 1701; 3 credits from ENGL at the 2000 level or third-year standing in the Interdisciplinary Drama Program; or permission of the Department

This course examines ways in which drama may both reflect and influence society, using as examples the complex relationship between Restoration comedy and its society, efforts at social engineering in Eighteenth-Century bourgeois tragedy, the role of melodrama in reflecting nineteenth century society and culture, and the "birth" of social drama late in the nineteenth century. In addition, it carries these ideas forward to include study of political theatre of the 1920's and 1930's, as well as works by contemporary social playwrights. (Format: Lecture 3 Hours)

**ENGL 3621 (3.00 CR)****READING FILMS**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course focuses on affinities between printed and cinematic narrative forms, introducing students as well to some of the principles of semiotics, and to the place of film theory within the context of cultural studies more generally. (Format: Lecture 3 Hours, Laboratory 2 Hours) [Note 1: This course may count as 3 credits in Art History.]

**ENGL 3651 (3.00 CR)****LITERATURE BY WOMEN TO THE TWENTIETH CENTURY**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

A study of literature by women before the twentieth century. This course employs a variety of critical approaches to define a tradition of writing by women. Works by such writers as Mary Godwin Shelley, Charlotte Brontë, Christina Rossetti, and Elizabeth Barrett Browning will be examined. (Format: Lecture 3 Hours) (Exclusion: ENGL 3650)

**ENGL 3661 (3.00 CR)****LITERATURE BY WOMEN IN THE TWENTIETH - CENTURY**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

A study of literature by women in the twentieth century. The course attempts to identify the major developments in the literature, using contemporary critical approaches. Works by such writers as Virginia Woolf, Jean Rhys and Margaret Atwood will be examined. (Format: Lecture 3 Hours) (Exclusion: ENGL 3650)

**ENGL 3711 (3.00 CR)****AMERICAN LITERATURE FROM THE COLONIAL PERIOD TO THE CIVIL WAR**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

A study of American Literature from its beginnings to 1865. This course focuses on various canonical texts which have become central to American culture and self-understanding; however, the course also makes room for voices of dissent, for those who criticized colonial practices and, after 1776, the newly formed United States of America. Finally, the course will consider various literary responses to what was called the "peculiar institution" that would ultimately divide the nation: slavery. (Format: Lecture 3 Hours) (Exclusion: ENGL 3711 Early American Literature)

**ENGL 3721 (3.00 CR)****AMERICAN LITERATURE FROM THE CIVIL WAR TO THE PRESENT**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

A study of American Literature from 1865 to the present. This course examines American writing and culture during the period when the United States became a colonial and, later, a world power. (Format: Lecture 3 Hours) (Exclusion: ENGL 3721 Twentieth Century American Literature)

**ENGL 3731 (3.00 CR)****AFRICAN AMERICAN LITERATURE**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course offers a survey of African American writing from the eighteenth century to the present. In addition to "literary" texts, the course will examine selected examples of the African American vernacular tradition. (Format: Lecture 3 Hours)

**ENGL 3741 (3.00 CR)****ASIAN AMERICAN LITERATURE**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course offers an introduction to a variety of Asian American writing from the late nineteenth century to the present. (Format: Lecture 3 Hours)



**ENGL 3751 (3.00 CR)****POST-COLONIAL AFRICAN LITERATURE**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course examines African literature in English from 1950, covering the novel, drama, and poetry and relating the literature to both Post-Colonial theory and to the historical developments in African politics and cultures. (Format: Lecture 3 Hours) (Exclusion: ENGL 3751 Literatures of the South Pacific and Africa)

**ENGL 3761 (3.00 CR)****LITERATURES OF AUSTRALIA, NEW ZEALAND AND THE SOUTH PACIFIC**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course traces the development, from their beginnings in the 1800's, of the literatures of Australia and New Zealand, and introduces the more recent literature from the South Pacific and island states. (Format: Lecture 3 Hours) (Exclusion: ENGL 3751 Literatures of the South Pacific and Africa)

**ENGL 3771 (3.00 CR)****CARIBBEAN LITERATURE**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course offers an introduction to the literature of the Caribbean Islands since 1945. (Format: Lecture 3 Hours) (Exclusion: ENGL 3761 Literatures of South East Asia and Caribbean)

**ENGL 3781 (3.00 CR)****THE LITERATURE OF INDIA AND SOUTHEAST ASIA**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course examines the 20th century literature of India and Southeast Asia against the history of the various independence movements and other ideological movements important to the cultures of the area. (Format: Lecture 3 Hours)

**ENGL 3801 (3.00 CR)****CANADIAN LITERATURE FROM THE BEGINNINGS TO 1914**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

A study of representative works of Canadian literature from the beginnings to the First World War. The development of Canadian literature from the exploration and settlement stage to Confederation and the beginnings of modernism will be presented. Works by such authors as Richardson, Moodie, Roberts, and Duncan will be examined. (Format: Lecture 3 Hours) (Exclusion: ENGL 3810)

**ENGL 3811 (3.00 CR)****CANADIAN MODERNISM**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course will examine the developments in Modernism found in Canadian literature from 1910 to 1950. (Format: Lecture 3 Hours) (Exclusion: ENGL 3820)

**ENGL 3821 (3.00 CR)****THE CANADIAN POSTMODERN**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course will examine the proliferating innovations in the forms and themes of Canadian literature since 1950. (Format: Lecture 3 Hours) (Exclusion: ENGL 3820)

**ENGL 3831 (3.00 CR)****ASPECTS OF CANADIAN LITERATURE**

**Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

A study of a selected aspect of Canadian literature. (Format: Lecture 3 Hours) (Exclusion: ENGL 3810)

**ENGL 3841 (3.00 CR)****MODERN CANADIAN DRAMA**

**Prereq:** DRAM/ENGL 1701; 3 credits from ENGL at the 2000 level or third-year standing in the Interdisciplinary Drama Program; or permission of the Program Director

This course explores developments in Canadian theatre from the mid-1960s by looking at representative playwrights, plays, theatres, and movements. (Format: Lecture 3 hours) (Exclusion: ENGL 3991 Modern Canadian Drama)

**ENGL 3850 (6.00 CR)****CREATIVE WRITING**

**Prereq:** Acceptance of a portfolio of original creative work

This full-year course offers workshops in creative writing, concentrating primarily on poetry and short fiction; it may also include some work in other forms such as drama and the personal essay. See the English Department website for the annual deadline for submitting application portfolios. (Format: Seminar/Workshop 3 Hours) (Exclusion: ENGL 3851; ENGL 3861)

**ENGL 3851 (3.00 CR)****CREATIVE WRITING**

**Prereq:** ENGL 3871; or permission of the Department

This full-year course offers workshops in creative writing, concentrating primarily on poetry and short fiction; it may also include some work in other forms such as drama and the personal essay. See the English Department website for the annual deadline for submitting application portfolios. (Format: Seminar/Workshop 3 Hours) (Exclusion: ENGL 3850; ENGL 3861)

**ENGL 3871 (3.00 CR)****CONTEMPORARY LITERARY THEORY I**

**Prereq:** Third-year standing; 6 credits from ENGL at the 2000 level; or permission of the Department

This course offers an introduction to various contemporary theories of literature; diverse approaches, such as structuralist, semiotic, post-structuralist and "deconstructive" will be examined. (Format: Lecture 3 Hours) (Exclusion: ENGL 3880)

**ENGL 3881 (3.00 CR)****CONTEMPORARY LITERARY THEORY II****Prereq:** ENGL 3871; or permission of the Department

This course will draw upon the literary theories introduced in English 3871 while introducing further theoretical approaches such as psychoanalytic, feminist, and Marxist theories. (Format: Lecture 3 Hours) (Exclusion: ENGL 3880)

**ENGL 3911 (3.00 CR)****STUDIES IN LITERARY GENRE****Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course will address one or more popular genres of literature, paying attention to the emergence and rise of the genre(s) and to the narrative conventions of the genre(s). Generic literatures examined could include, but need not be limited to, autobiography, mystery, romance, speculative fiction, utopia or dystopia, etc. (Format: Lecture 3 Hours)

**ENGL 3921 (3.00 CR)****CULTURAL STUDIES****Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course offers an introduction to the broad field of contemporary cultural studies, paying particular attention to current theoretical models of 'reading' the texts of popular culture. Diverse forms of texts will be examined. (Format: Lecture 3 Hours)

**ENGL 3931 (3.00 CR)****ASPECTS OF POSTMODERNISM****Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course examines various aspects of the postmodern aesthetic by exploring post-modern writing, within the context of recent theories of postmodernism; the course explores implications of postmodernism as both a cultural and an aesthetic phenomenon. It may include themes such as Cyberpunk, the Posthuman, or the Postmodern Gothic. (Format: Lecture 3 Hours)

**ENGL 3941 (3.00 CR)****MODERNISM****Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course is an introduction to concepts of modernism in literature and culture. While the course focuses on modernist literature written in English, its scope is international and interdisciplinary. Students study foundational modernist literary texts, but also read other works, in philosophy, anthropology, and psychology, for example, and consider other art forms in order to understand the cultural forces from which modernism arose. (Format: Lecture 3 Hours)

**ENGL 3951 (3.00 CR)****LITERATURE AND THE NATURAL WORLD****Prereq:** 6 credits from ENGL at the 2000 level; or permission of the Department

This course examines selected topics in literary representations of the natural world from the Anglo-Saxon period to the present. [Note: ENGL 3951 may be taken for credit more than once if the topic differs] (Format: Seminar 3 Hours) (Exclusion: ENGL 3991 Literature and the Natural World; ENGL 3991 Literature and the World: Ecopoetics)

**ENGL 3991 (3.00 CR)****SPECIAL TOPIC IN ENGLISH**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for ENGL 3991 more than once, provided the subject matter differs.] (Format: Variable)

**ENGL 4221 (3.00 CR)****SELECTED TOPICS IN PRE-1800 LITERATURE****Prereq:** Third-year standing; permission of the Department. Preference is given to students pursuing a course-based Honours

This course examines closely selected topics drawn from pre-1800 English literature. [Note 1: ENGL 4221 may be taken for credit more than once if the topic differs] (Format: Seminar 3 Hours)

**ENGL 4231 (3.00 CR)****SELECTED TOPICS IN POST-1800 LITERATURE****Prereq:** Third-year standing; permission of the Department. Preference is given to students pursuing a course-based Honours

This course examines closely selected topics drawn from post-1800 English literature. [Note 1: ENGL 4231 may be taken for credit more than once if the topic differs] (Format: Seminar 3 Hours)

**ENGL 4701 (3.00 CR)****SELECTED TOPICS IN AMERICAN LITERATURE****Prereq:** Third-year standing; permission of the Department. Preference is given to students pursuing a course-based Honours

This course examines closely selected topics drawn from American English literature. [Note 1: ENGL 4701 may be taken for credit more than once if the topic differs] (Format: Seminar 3 Hours)

**ENGL 4801 (3.00 CR)****SELECTED TOPICS IN CANADIAN LITERATURE****Prereq:** Third-year standing; permission of the Department. Preference is given to students pursuing a course-based Honours

This course examines closely selected topics drawn from Canadian English literature. [Note 1: ENGL 4801 may be taken for credit more than once if the topic differs] (Format: Seminar 3 Hours)

**ENGL 4921 (3.00 CR)****SELECTED TOPICS IN SEX, GENDER AND LITERATURE****Prereq:** Third-year standing; permission of the Department. Preference is given to students pursuing a course-based Honours

This course examines closely selected topics drawn from English literature dealing with sex and gender. [Note 1: ENGL 4921 may be taken for credit more than once if the topic differs] (Format: Seminar 3 Hours)

**ENGL 4931 (3.00 CR)**  
**SELECTED TOPICS IN TEXT AND TECHNOLOGY**

**Prereq:** Third-year standing; permission of the Department. Preference is given to students pursuing a course-based Honours

This course examines closely selected topics drawn from English literature dealing with text and technology. [Note 1: ENGL 4931 may be taken for credit more than once if the topic differs] (Format: Seminar 3 Hours)

**ENGL 4941 (3.00 CR)**  
**SELECTED TOPICS IN LITERARY REPRESENTATIONS OF RACE, CULTURE AND NATION**

**Prereq:** Third-year standing; permission of the Department. Preference is given to students pursuing a course-based Honours

This course examines closely selected topics drawn from English literature dealing with representations of race, culture, and nation. [Note 1: ENGL 4941 may be taken for credit more than once if the topic differs] (Format: Seminar 3 Hours)

**ENGL 4950 (6.00 CR)**  
**INDEPENDENT STUDY IN ENGLISH**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for ENGL 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**ENGL 4951 (3.00 CR)**  
**INDEPENDENT STUDY IN ENGLISH**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for ENGL 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**ENGL 4990 (6.00 CR)**  
**HONOURS THESIS**

Supervised by members of the Department, candidates for an Honours degree (Thesis Option) must complete an Honours thesis of acceptable scope and quality. The subject of the Honours thesis is to be approved by the Department at the end of the year in which the student will achieve fourth year standing (completion of at least 84 credits). A formal thesis proposal must be submitted to and approved by the Department at the beginning of the subsequent Fall term. The candidate is to be directly responsible to a supervisor and a department committee. (Format: Independent Study/Thesis)

**ENGL 4991 (3.00 CR)**  
**SPECIAL TOPIC IN ENGLISH**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for ENGL 4991 more than once, provided the subject matter differs.] (Format: Variable)

## ENVIRONMENTAL SCIENCE

See Geography and Environment

## ENVIRONMENTAL STUDIES

See Geography and Environment

## EXPERIENTIAL LEARNING

See regulation 11.11.3.

### EXPL 3000 (6.00 CR) INDEPENDENT EXPERIENTIAL LEARNING

**Prereq:** Second year standing and special permission from the university. Please see 11.11.3 for details.

This is a university-wide course that provides credit for academic analysis of independent experiential learning. Normally a student may earn three credits (and up to six credits) may be awarded per experience (to a maximum of six credits in a student's degree program) based on an independent experiential learning program evaluated under regulation 11.11.3.

### EXPL 3001 (3.00 CR) INDEPENDENT EXPERIENTIAL LEARNING

**Prereq:** Second year standing and special permission from the university. Please see 11.11.3 for details.

This is a university-wide course that provides credit for academic analysis of independent experiential learning. Normally a student may earn three credits (and up to six credits) may be awarded per experience (to a maximum of six credits in a student's degree program) based on an independent experiential learning program evaluated under regulation 11.11.3.

### EXPL 4000 (6.00 CR) INDEPENDENT EXPERIENTIAL LEARNING

**Prereq:** Second year standing and special permission from the university. Please see 12.11.3 for details.

This is a university-wide course that provides credit for academic analysis of independent experiential learning. Normally a student may earn three credits (and up to six credits) may be awarded per experience (to a maximum of six credits in a student's degree program) based on an independent experiential learning program evaluated under regulation 11.11.3.

### EXPL 4001 (3.00 CR) INDEPENDENT EXPERIENTIAL LEARNING

**Prereq:** Second year standing and special permission from the university. Please see 11.11.3 for details.

This is a university-wide course that provides credit for academic analysis of independent experiential learning. Normally a student may earn three credits (and up to six credits) may be awarded per experience (to a maximum of six credits in a student's degree program) based on an independent experiential learning program evaluated under regulation 11.11.3.

## FINE ARTS

The teaching of art at Mount Allison University can be traced back to the opening of the Women's Academy in 1854. It has been an important part of the curriculum since that time. In 1941 Mount Allison was the first university in Canada to give a B.F.A. degree in the visual arts. Much of the Department's history was, and is, directly related to the Owens Art Gallery. Until 1965, when the Department moved to its own quarters in the Gairdner Fine Arts Building, the Department was housed in the gallery. Since that time the gallery has been extensively remodelled into one of the largest in the Maritimes, serving both the university and community. We enjoy one of the best student/staff ratios of any art department in the country. The Department not only occupies its own building but has excellent facilities in other parts of the campus. We are proud of our tradition but prouder still of our ability to keep up with the changing needs of our students.

## THE B.F.A. PROGRAM

A description of the program leading to the B.F.A. degree is given in Section 11.7 of the Calendar. Studio courses are offered in the following areas: Drawing, Painting, Photography, Printmaking, Sculpture and Open Media.

## Disciplinary B.A. Programs

A Minor or Major in Fine Arts which includes a combination of Art History and Studio Art courses may also be completed on a B.A. degree. Students should submit a portfolio of artwork for assessment by February 15, to be considered for a Major or Minor in Fine Arts. Students completing a B.A. may earn a Minor or Major in Art History. These programs are outlined under Art History at the beginning of the section.

## MINOR in Fine Arts is 24 credits earned as follows:

- 6 from FINH 2101, 2111
- 6 from 1000 level Fine Arts studio courses
- 6 from 2000 level Fine Arts studio courses
- 6 from 3000 level Fine Arts studio courses

**Note:** Students admitted to a Minor in Fine Arts will be registered following consultation with the Fine Arts Department.

**Note:** Students must have appropriate pre-requisites for 2/3000 level courses or permission of the Department

## MAJOR in Fine Arts is 60 credits earned as follows:

- 6 from FINH 2101, 2111
- 6 from Art History at the 2/3/4000 level
- 12 from FINA 1101, 1111, 1921, 1931
- 27 from 1000/2000/3000 level Fine Arts studio courses (9 credits must be at the 3000 level)
- 6 from 4000 level Fine Arts Advanced studio courses
- 3 from Fine Arts Seminar 3701, 4701

**Note:** Students must have appropriate pre-requisites for 2/3/4000 level studio courses or permission of the Department

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

## STUDIO COURSES

The pre-requisite for 2000 level studio courses is the successful completion of the appropriate 1000 level course; i.e. 1101, 1111, 1901, 1911, 1921, 1931. Any first year studio course that is failed will have to be passed by the end of the next academic year in which the student is enrolled.

The following studio courses will be charged Fine Arts Instructional Supplies Fees: FINA 1921, 1931, 2201, 2211, 2401, 2411, 2501, 2511, 3201, 3211, 3401, 3411, 3501, 3511, 4801, 4811, 4821, and 4831. This list is subject to change.

### Studio Courses Open to Non-Fine Arts Students

Six credits chosen from FINA 1101, 1111, 1901, 1911, and FINA 1921, 1931 are open to students from other degree programs, dependent on available space, and by written permission of the Department only.

Preference will be given to students with a major in Art History or Drama.

Students who have no background or previous training in visual art should be advised that these courses are required for the Bachelor of Fine Arts degree program and that standards are set accordingly.

Upper level studio courses will be open to students from other programs on a space available basis, provided that the student has met the prerequisite requirement, or been granted the permission of the Department.

### FINA 1101 (3.00 CR) FUNDAMENTALS OF DRAWING I

This course will introduce the student to drawing as a common language of expression in the visual arts. A variety of drawing media will be used. (Format: Studio 6 Hours)

### FINA 1111 (3.00 CR) FUNDAMENTALS OF DRAWING II

**Prereq:** FINA 1101; or permission of the Department

This course is a continuation of Fine Arts 1101. (Format: Studio 6 Hours)

### FINA 1921 (3.00 CR) INTRODUCTION TO MEDIA I

This course is designed to introduce the studio areas of printmaking and photography. (Format: Studio 6 Hours)

### FINA 1931 (3.00 CR) INTRODUCTION TO MEDIA II

This course is designed to introduce the studio areas of painting and sculpture. (Format: Studio)

### FINA 1941 (3.00 CR) EXAMINING STUDIO PRACTICES

This course examines elements and conditions of what constitutes a studio art practice, to ground first year fine arts students' understanding of studio-based education within a contemporary cultural context. [Note: Open to only B.F.A. students; open on a space available basis to B.A. Majors and Minors in Fine Arts.] (Format: Lecture/Seminar 3 Hours)

### FINA 1951 (3.00 CR) EXPLORING A STUDIO PRACTICE

**Prereq:** FINA 1941; or permission of the Department.

This course supplements the Introduction to Media courses in painting, printmaking, sculpture, and photography, (FINA 1921 and 1931). It focuses on alternative media and processes and encourages a broad view of studio practice that moves beyond specific media boundaries. (Format: Studio 6 Hours)

### FINA 1991 (3.00 CR) SPECIAL TOPIC IN FINE ARTS

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for FINA 1991 more than once, provided the subject matter differs.] (Format: Variable)

### FINA 2101 (3.00 CR) DRAWING I

**Prereq:** FINA 1101, FINA 1111; or permission of the Department

This course emphasizes drawing from the figure and also includes various other projects related to drawing. (Format: Studio 6 Hours)

### FINA 2111 (3.00 CR) DRAWING II

**Prereq:** FINA 2101; or permission of the Department

This course is a continuation of Drawing I. (Format: Studio 6 Hours)

### FINA 2201 (3.00 CR) INTAGLIO AND RELIEF

**Prereq:** FINA 1921; or permission of the Department

This course introduces intaglio and relief printmaking techniques. (Format: Studio 6 Hours) (Exclusion: Any version of FINA 2201 previously offered with a different title)

### FINA 2211 (3.00 CR) LITHOGRAPHY

**Prereq:** FINA 1921; or permission of the Department

This course introduces lithography printmaking techniques. (Format: Studio 6 Hours) (Exclusion: Any version of FINA 2211 previously offered with a different title)

**FINA 2301 (3.00 CR)****PAINTING I**

**Prereq:** FINA 1931; or permission of the Department

This course uses various media to focus on the fundamentals of basic painting. It explores colour and techniques and emphasizes observational painting, from various subjects including the figure. (Format: Studio 6 Hours)

**FINA 2311 (3.00 CR)****PAINTING II**

**Prereq:** FINA 2301; or permission of the Department

This is an exploration of painting materials and means, pictorial elements, and issues fundamental to expressive painting. Both traditional and contemporary painting will be considered. (Format: Studio 6 Hours)

**FINA 2401 (3.00 CR)****SCULPTURE I**

**Prereq:** FINA 1931; or permission of the Department

This course addresses the basic sculptural practices through a variety of sculptural traditions, including wire, wood, mesh, scavenged or natural materials and clay. (Format: Studio 6 Hours)

**FINA 2411 (3.00 CR)****SCULPTURE II**

**Prereq:** FINA 2401; or permission of the Department

This course is a continuation of FINA 2401 and emphasizes a more experimental approach to sculpture. This course investigates how the shape and form of a structure is imposed by the materials used. (Format: Studio 6 Hours)

**FINA 2501 (3.00 CR)****PHOTOGRAPHY I**

**Prereq:** FINA 1921; or permission of the Department

Fine Arts 2501 is intended to give the fine arts photography student a firm background both aesthetically and technically in the uses of photography as a fine art medium. The following will be covered: conceptualization of the image/technical review, exposing film for optimum results (slide & B&W), processing and proofing, storage and editing, introduction to the fine print portfolio presentation, evaluation criticism, and an historical perspective. Each student is required to own a 35 mm camera with manual metering. (Format: Studio 6 Hours)

**FINA 2511 (3.00 CR)****PHOTOGRAPHY II**

**Prereq:** FINA 2501; or permission of the Department

Fine Arts 2511 addresses itself both aesthetically and technically in small format photography as a component of your development as an artist. This course will deal with notions of the black and white "fine print", social, political and personal issues in the work and portfolio development as well as a number of other studio techniques. Assignments dealing with portraiture, self portraiture, landscape and photo fabrication will allow for personal investigation of a number of given subjects that may or may not contribute to the conceptualization of the final portfolio. (Format: Studio 6 Hours)

**FINA 2991 (3.00 CR)****SPECIAL TOPIC IN FINE ARTS**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for FINA 2991 more than once, provided the subject matter differs.] (Format: Variable)

**FINA 3101 (3.00 CR)****INTERMEDIATE DRAWING**

**Prereq:** FINA 2101; 2111; or permission of the Department

This course demands an advanced approach to drawing to further students' understanding of the cultural, historical, and theoretical issues related to drawing through refinement of technical and conceptual skills. It provides for increased responsibility to work independently, apply research, and generate subject matter. (Format: Studio 6 Hours) (Exclusion: Any version of FINA 3101 previously offered with a different title)

**FINA 3111 (3.00 CR)****TOPICS IN INTERMEDIATE DRAWING**

**Prereq:** FINA 2101, 2111; or permission of the Department

This course emphasizes individual direction and style in drawing, using a variety of traditional and non-traditional media. (Format: Studio 6 Hours) (Exclusion: Any version of FINA 3111 previously offered with a different title)

**FINA 3201 (3.00 CR)****INTERMEDIATE PRINTMAKING I**

**Prereq:** FINA 2201; FINA 2211; or permission of the Department

Fine Arts 3201 and 3211 survey traditional and non-traditional printmaking for students with a background in printmaking. (Format: Studio 6 Hours)

**FINA 3211 (3.00 CR)****INTERMEDIATE PRINTMAKING II**

**Prereq:** FINA 3201; or permission of the Department

Fine Arts 3201 and 3211 survey traditional and non-traditional printmaking for students with a background in printmaking. (Format: Studio 6 Hours)

**FINA 3301 (3.00 CR)****INTERMEDIATE PAINTING I**

**Prereq:** FINA 2301; FINA 2311; or permission of the Department

This course focuses on the study of figurative and non-figurative painting, using various painting methods and mixed media. Consideration will be given to contemporary artists and to the cultural context of painting. (Format: Studio 6 Hours)

**FINA 3311 (3.00 CR)**  
**INTERMEDIATE PAINTING II**

**Prereq:** FINA 3301; or permission of the Department

Students will explore uses of various painting and mixed media, and work from figurative and non-figurative sources as they complete projects with diverse formal, thematic or conceptual objectives. (Format: Studio 6 Hours)

**FINA 3401 (3.00 CR)**  
**INTERMEDIATE SCULPTURE I**

**Prereq:** FINA 2401; FINA 2411; or permission of the Department

This course emphasizes contemporary attitudes, theory, and non-traditional approaches to sculpture. It addresses a mixed media approach, installation, and outdoor or environmental art. (Format: Studio 6 Hours)

**FINA 3411 (3.00 CR)**  
**INTERMEDIATE SCULPTURE II**

**Prereq:** FINA 3401; or permission of the Department

This course investigates student initiated work, public sculpture proposals, and model making which combines and/or extends approaches from previous courses and which lead into the fourth year tutorial program. (Format: Studio 6 Hours)

**FINA 3501 (3.00 CR)**  
**INTERMEDIATE PHOTOGRAPHY I - THE VIEW CAMERA**

**Prereq:** FINA 2501; FINA 2511; or permission of the Department

This course covers the use of medium and large format cameras in the context of landscape and studio work, through use of colour and black and white materials. (Format: Studio 6 Hours)

**FINA 3511 (3.00 CR)**  
**INTERMEDIATE PHOTOGRAPHY II - COLOUR AND PHOTOFABRICATION**

**Prereq:** FINA 3501; or permission of the Department

A continuation of 3501 with colour printmaking and photo fabrication assignments. Processes covered include RA4 and Ilfochrome colour printmaking, Platinum, Cyanotype, Van Dyke and other alternate printing methods. Further exploration will include advanced view camera and studio technique. (Format: Studio 6 Hours)

**FINA 3601 (3.00 CR)**  
**INTERMEDIATE OPEN MEDIA I**

**Prereq:** 12 credits from FINA 2101, 2111, 2201, 2301, 2311, 2401, 2411, 2501, 2511; or permission of the Department

Fine Arts 3601 and 3611 will offer the opportunity to integrate various media with which the student is already familiar. They will also introduce technical skills and a conceptual framework to facilitate this investigation. Performance and installation may be components of the course. Either or both courses may be taken for credit. (Format: Studio 6 Hours)

**FINA 3611 (3.00 CR)**  
**INTERMEDIATE OPEN MEDIA II**

**Prereq:** 12 credits from FINA 2101, 2111, 2201, 2301, 2311, 2401, 2411, 2501, 2511; or permission of the Department

Fine Arts 3601 and 3611 will offer the opportunity to integrate various media with which the student is already familiar. They will also introduce technical skills and a conceptual framework to facilitate this investigation. Performance and installation may be components of the course. Either or both courses may be taken for credit. (Format: Studio 6 Hours)

**FINA 3701 (3.00 CR)**  
**THIRD YEAR SEMINAR IN FINE ARTS**

A seminar course on contemporary art issues in Fine Arts, usually taught in the second term of each year. Students will lead seminar discussions on selected topics and produce research papers. The course is required of all third year B.F.A. students. [Note 1: Open to only B.F.A. students and open to other students on a space available basis with preference given to students in the BA degree program with a Major or Minor in Art History or Fine Arts; or permission of the Department.](Format: Seminar)

**FINA 3991 (3.00 CR)**  
**SPECIAL TOPIC IN FINE ARTS**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for FINA 3991 more than once, provided the subject matter differs.] (Format: Variable)

**FINA 4701 (3.00 CR)**  
**ADVANCED SEMINAR IN FINE ARTS**

An advanced seminar on contemporary art issues in Fine Arts, taught in the first term of each year. Students will lead seminar discussions on selected topics and produce research papers. The course is required of all fourth year B.F.A. students. [Note 1: Open to only B.F.A. students and open to other students on a space available basis with preference given to students in the BA degree program with a Major or Minor in Art History or Fine Arts; or permission of the Department.](Format: Seminar)

**FINA 4801 (3.00 CR)**  
**ADVANCED STUDIO I: CRITIQUE**

**Prereq:** Registration in the fourth-year of the BFA Degree or BA Degree with Major in Fine Arts

This course requires regular class critiques for fourth year students to workshop and develop an independently produced body of studio work thereby meeting students' needs for critical feedback in a single medium or in various media.(Format: Studio 6 Hours)

**FINA 4811 (3.00 CR)****ADVANCED STUDIO II: CRITIQUE**

**Prereq:** Registration in the fourth-year of the BFA Degree or BA Degree with Major in Fine Arts

This course requires regular class critiques for fourth year students to workshop and develop an independently produced body of studio work thereby meeting students' needs for critical feedback in a single medium or in various media (Format: Studio 6 Hours)

**FINA 4821 (3.00 CR)****ADVANCED INDEPENDENT STUDIO I**

**Prereq:** Registration in the fourth-year of the BFA Degree or BA Degree with Major in Fine Arts

This course requires that students create studio work independently while working with one faculty advisor thereby meeting a student's needs for critical feedback in a single medium or in various media.

[Note: This course is arranged by a student with a faculty member on an individual basis.] (Format: Studio)

**FINA 4831 (3.00 CR)****ADVANCED INDEPENDENT STUDIO II**

**Prereq:** Registration in the fourth-year of the BFA Degree or BA Degree with Major in Fine Arts

This course requires that students create studio work independently while working with one faculty advisor thereby meeting a student's needs for critical feedback in a single medium or in various media.

[Note: This course is arranged by a student with a faculty member on an individual basis.] (Format: Studio)

**FINA 4950 (6.00 CR)****INDEPENDENT STUDY IN FINE ARTS**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study.

[Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for FINA 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**FINA 4951 (3.00 CR)****INDEPENDENT STUDY IN FINE ARTS**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study.

[Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for FINA 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**FINA 4991 (3.00 CR)****SPECIAL TOPIC IN FINE ARTS**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for FINA 4991 more than once, provided the subject matter differs.] (Format: Variable)

**Art History Courses**

See Art History



## FRENCH STUDIES

See Modern Languages and Literatures

## GEOGRAPHY

See Geography and Environment

## GEOGRAPHY AND ENVIRONMENT

The Geography and Environment Department offers three degree programs: a B.A. in Geography, a B.A. in Environmental Studies, and a B.Sc. in Environmental Science, as well as a B.A. or B.Sc. Minor in Geographic Information Systems.

The Geography B.A. program is designed for students interested in the study of social sciences at various spatial and temporal scales and leads to the completion of a Minor, Major, or Honours. It is about the study of place and involves understanding the processes that have acted together to shape the complex "place" structures that exist in our world and on our landscape. Such study requires an understanding of the principles of ecological and physical systems; of the cultural, social, economic and political forces acting on those systems; and of the management, planning or scientific tools necessary to meet environmental challenges and opportunities.

The Environmental Studies B.A. program is designed for students interested in the human dimensions of environmental change and problem-solving, including environmental behaviour, management, planning, and policy. It operates as an inter-disciplinary, cross-departmental degree program and leads to the completion of a Minor, Major, or Honours. Studies in this stream address such topics as environmental policy and economics, natural resource management, and environmental ethics.

The Environmental Science B.Sc. program is an interdisciplinary, science-intensive program, requiring comprehensive study of the sciences and mathematics leading to a Major or Honours. Courses in this program provide the strong but diverse scientific foundation required to understand environmental issues from a multi-disciplinary perspective.

The Geographic Information Systems (GIS) B.A. or B.Sc. Minor involves the application of computer models to represent spatial features on the earth's surface. The two core GIS courses, combined with courses in Computer Science, provide a valuable foundation in applied spatial analysis.

### Interdisciplinary B.Sc. Programs

**MINOR in Environmental Science is 24 credits earned as follows:**

- 3 from GENS 1401
- 3 from BIOL 1001, CHEM 1001, PHYS 1041, 1051
- 3 from GENS 2431, BIOL 2701, MATH 2311
- 9 from BIOL 2101, GENS 2411, 2421, 2441
- 6 from GENS at the 3/4000 level; or GENV 3201

**MAJOR in Environmental Science is 69 credits earned as follows:**

- 6 from GENS 1401, 2411, 2421
- 3 from GENV 1201, 2001, 2101, ANTH 2501, PHIL 1651
- 9 from BIOL 1001, 1501, 2101
- 6 from BIOC 1001, CHEM 1001
- 3 from PHYS 1041, 1051
- 3 from MATH 1111, 1151
- 3 from BIOL 2701, MATH 2311, GENS 2431
- 36 chosen from one of the following Optional Streams listed below.

*Aquatic Environments*

- 3 from MATH 1121, COMP 1631
- 6 from BIOL 2201, 2301, 2401
- 9 GENS 3461, 3471, 4401
- 18 from GENS 3401, 3411, 3421, 3431, 3451, 3991, 4421, 4701, BIOL 3111, 3201, 3351, 3361, 3371, 3781\*, 3811, 4111\*, 4411, 4711, 4371\*

*Environmental Chemistry*

- 3 from MATH 1121
- 6 from CHEM 1021, BIOC 2001
- 6 from CHEM 2111, 2411
- 6 from BIOC 3001, 3031, 3501, 3711, CHEM 3421\*
- 15 from BIOC 3501, 3711, 3991, 4151, 4201, CHEM 4521\*, GENS 3461, 3471, 4421

*Environmental Management*

- 3 from MATH 1121, COMP 1631
- 3 from GENS 2441
- 6 from BIOL 2301, 2401
- 9 from GENS 3421, GENS 3401, BIOL 3811
- 15 from GENS 3431, 3451, 3461, 3471, 3991, 4421, 4701, BIOL 3301\*, 3401\*, 3351, 3371, 3451\*, 3501\*, 3511\*, 3651\*, 4111\*, 4411, 4711

*Environmental Modelling*

- 9 from MATH 1121, COMP 1631, PHYS 1551
- 6 from GENS 2441, 4721, MATH 2111
- 9 from MATH 3151, 3411, BIOL 4711
- 12 from COMP 3411, 3531, BIOL 3811, 4111, GENS 3401, 3421, 3451, 3461, 3471, 4421, 4701, MATH 3311\*, 3321\*, 3531, 3991, PHYS 3751

*Environmental Monitoring*

- 3 from MATH 1121, COMP 1631
- 9 from BIOL 2301, CHEM 1021, 2511
- 3 from GENS 2441
- 9 from GENS 3471, 4401, BIOL 3811
- 12 from GENS 3401\*, 3421\*, 3431, 3451, 3461, 4421, 4701, BIOL 3111, 3301, 3401, 3451, 3501\*, 4111, 4711

**Note:** Additional 3/4000 level science courses are needed to fulfill Calendar Regulation 11.3.5.

**Note:** Recommended courses are indicated with an asterisk.

**Note:** The following courses, while not counting towards the Major, are suggested due to their relevance to the Environmental Management Optional Stream: GENV 3101, 3201

**Note:** The following course, while not counting towards the Major, is suggested due to its relevance to the Environmental Monitoring Optional Stream: GENV 3201

### **HONOURS in Environmental Science is 78 credits as follows:**

- 69 credits as in the Major, plus:
- 3 from GENS 4421
- 6 from GENS 4990

**Note:** Students who have completed any one of the former Environmental Science course listings or Physical Geography courses

will have credits applied to their Geography and Environment B.Sc. program.

**Note:** All GENS B.Sc. courses are considered Science credits for the completion of degree requirements.

## **Interdisciplinary B.A. Programs**

### **MINOR in Environmental Studies is 24 credits earned as follows:**

- 6 from GENV 1201, GENS 1401
- 3 from GENV 2001
- 9 from ECON 1001 and 1011, 3801
- 6 from GENV 3101, 3111, 3201, 3531, 4101, 4111, 4121, 4201, PHIL 3721, RELG 3981, ANTH 4531

### **MAJOR in Environmental Studies is 66 credits earned as follows:**

- 9 from GENS 1401, GENV 1201, 2001
- 3 from BIOL 1001, CHEM 1001, PHYS 1041, PHYS 1051
- 9 from ECON 1001, 1011, 3801
- 6 from GENS 2411, 2421, 2441, 3411, 3451, 3461
- 6 from GENV 3701 or GENS 3401, GENS 2431 or MATH 2311
- 15 from GENV 3101, 3111, 3201, 3211, 3531, 4101, 4111, 4121, 4201, 4211
- 18 from Optional Streams. Choose 9 credits of complementary courses from each of two of the following Optional Streams listed below.

#### **Environment and Society:**

- ANTH 1011, 2501, 3031, 3541, 4531
- GENV 2101, 3101, 3111, 3801, 4101, 4121
- SOCI 1001, 4511

#### **Environmental Policy and Economics:**

- ECON 2301, 2311, 3501, 3601, 3821
- GENV 2201, 2221, 3101, 3201, 3211, 3531, 4111, 4201, 4211
- INLR 2301, 3201, 3301, 3311, 4101, 4301
- POLS 2101, 3141, 4121, 4141

#### **Environmental History and Philosophy:**

- ENGL 3951
- HIST 3401, 4321
- PHIL 1651, 2701, 3511, 3721
- RELG 2411, 3981

#### **Ecology and Environment:**

- GENS 2411, 2421, 2441, 3411, 3421, 3451, 3461, 4421, 4721
- BIOL 2101, 3201, 3301, 3361, 3711, 3781, 3801, 3811, 3911, 4101, 4111

**Note:** At least 9 of 18 elective stream credits must be at the 3/4000 level.

### **HONOURS in Environmental Studies is 78 credits earned as follows:**

- 66 credits as in the Major, plus:
- 6 from GENV 4990

- 6 from courses at the 3000/4000 level in one of the elective streams chosen for the Major

## Disciplinary B.A. Programs

**MINOR in Geography is 24 credits earned as follows:**

- 6 from GENV 1201, GENS 1401  
18 from Geography and Environment including 6 from the 3/4000 level, chosen in consultation with the Program Advisor

**MAJOR in Geography is 60 credits earned as follows:**

- 6 from GENS 1401, 2421  
3 from GENV 1201  
9 from GENV 2101, 2201, 2221, 2811  
9 from GENS 2431, 2441, 3401 or GENV 3701  
18 from Geography and Environment at the 3/4000 level, including 6 credits from the 4000 level  
15 credits from complementary courses chosen in consultation with the Program Advisor

**HONOURS in Geography is 72 credits earned as follows:**

- 60 credits as in the Major, plus:  
6 from GENV 4990  
6 from Geography and Environment at the 3/4000 level, including 3 from the 4000 level, chosen in consultation with the Program Advisor

## Interdisciplinary B.A. and B.Sc. Programs

**B.A. or B.Sc. MINOR in Geographic Information Systems is 24 credits earned as follows:**

- 6 from COMP 1631, 1731  
3 from GENS 1401, GENV 1201  
3 from GENS 2431, MATH 2311  
6 from GENS 2441, GENS 4721  
3 from COMP 2611, 3851  
3 from GENS 3401, GENV 3701

## GEOGRAPHY AND ENVIRONMENT COURSES

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following courses can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees: GENS 1401; GENV 1201, 2001

## GENS COURSES

### GENS 1401 (3.00 CR) THE PHYSICAL ENVIRONMENT

This course introduces the general principles of Physical Geography and the Environment, emphasizing the physical world at a variety of spatial and temporal scales. This course introduces the four fundamental spheres of Physical Geography: the hydrosphere, lithosphere, atmosphere and biosphere. It examines basic processes in the physical environment such as the seasons, layers of the atmosphere, the earth's energy budget and interactions with atmospheric processes. It also investigates weather and its interplay within the hydrological cycle, the fundamentals of climatology, the three basic rock types, tectonic activity and weathering of the earth's surface. (Format: Lecture 3 Hours, Laboratory 1.5 Hours) (Distribution: Natural Science-c) (Exclusion: GEOG 1401)

### GENS 1991 (3.00 CR) SPECIAL TOPIC IN GEOGRAPHY AND ENVIRONMENT

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for GENS 1991 more than once, provided the subject matter differs.] (Format: Variable)

### GENS 2411 (3.00 CR) GEOMORPHOLOGY

**Prereq:** GENS 1401; or permission of the Department

This course is an introduction to geomorphology, the science that explores the processes that shape the Earth's surface. Its first half deals with the large-scale relief features of the Earth and how they are shaped by the processes of weathering, erosion, and sedimentary deposition. The second half introduces landforms/landscapes that exist in glacial, fluvial, coastal, and desert environments. It also explores the geomorphic agents which control the formation and evolution of these landforms/landscapes. (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: GEOS 2401; GEOG 2411)

### GENS 2421 (3.00 CR) WEATHER AND CLIMATE

**Prereq:** GENS 1401; or permission of the Department

This course highlights elements of weather and climate including the composition and thermal structure of the atmosphere, radiation and energy balances, global circulation, air masses, fronts and atmospheric disturbances, and climates of the world. It places special emphasis on recent climatic changes in the environment. (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: GEOG 2421)

**GENS 2431 (3.00 CR)****DATA ANALYSIS**

**Prereq:** 3 credits from GENV 1201, GENS 1401; or permission of the Department

This course develops basic skills in data collection, analysis, and presentation. It introduces basic statistical and hypothesis testing procedures, along with relevant software. (Format: Lecture/Laboratory 3 Hours) (Exclusion: GEOG 2711)

**GENS 2441 (3.00 CR)****GEOGRAPHIC INFORMATION SYSTEMS**

**Prereq:** Second-year standing; 3 credits from GENS 2431, MATH 2311; or permission of the Department

This course surveys several aspects of traditional cartography, examines one or more Geographic Information Systems, and explores the role of maps in conveying geographic information. (Format: Lecture/Laboratory 3 Hours) (Exclusion: GEOG 2721; GEOG 3711)

**GENS 2991 (3.00 CR)****SPECIAL TOPIC IN GEOGRAPHY AND ENVIRONMENT**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for GENS 2991 more than once, provided the subject matter differs.] (Format: Variable)

**GENS 3401 (3.00 CR)****RESEARCH METHODS IN ENVIRONMENTAL SCIENCE**

**Prereq:** Third-year standing; GENS 2431; permission of the Department

This course begins with a critical examination of current research techniques. Students then design, implement, complete, and evaluate a field research project in environmental science. [Note 1: This course requires attendance at an off-campus field camp and students will be liable for some field trip costs.] (Format: Lecture 3 Hours, Multi-Day Field Camp) (Exclusion: GEOG 3401)

**GENS 3411 (3.00 CR)****COASTAL GEOMORPHOLOGY**

**Prereq:** GENS 2431; GENS 2411; or permission of the Department

This course introduces coastal geomorphology by emphasizing current theories of coastal processes set in a context of natural systems. Topics include waves and currents, sediment transport, evolution of coastal features, and coastal management. (Format: Lecture 3 Hours, Laboratory 3 Hours)(Exclusion: GEOG 3411; GEOS 3111)

**GENS 3421 (3.00 CR)****BIOGEOGRAPHY**

**Prereq:** GENS 2421; 3 credits from GENS 2431, BIOL 2701; or permission of the Department

This course explores the links between the geomorphology and climatology of a region and the plant-animal environments through a biogeographical approach to ecological studies. It focuses on the geography of plants including environmental controls of plant distributions and the functional and historical aspects of plant communities. [Note 1: This course is cross-listed with BIOL 3421 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours, Laboratory 3 Hours)(Exclusion: GEOG 3421)

**GENS 3431 (3.00 CR)****FUNDY'S MEGATIDAL BIOGEOGRAPHY SCIENCE**

**Prereq:** GENS 1401

This course explores the physical evolution of the Bay of Fundy's landscape through geologic time. It examines the development of terrestrial, intertidal, and marine ecosystems, and considers the anthropogenic influences that have transformed this dynamic environment. It pays close attention to the interaction between the climate, geology, tides, rivers, forests, and biodiversity, through direct observation and measurement in the field, the use of media such as video and photography, and in-class lectures. (Format: Field Course) (Exclusion: GENS 3991-Fundy Mega-Tidal Biogeography)

**GENS 3451 (3.00 CR)****EARTH SYSTEM SCIENCE**

**Prereq:** GENS 1401; GENS 2421; 6 credits from BIOL 1001, BIOL 1501, BIOC 1001, CHEM 1001, PHYS 1041, PHYS 1051; or permission of the Department

This course integrates atmospheric, oceanographic, geological and biological concepts with a historical perspective to introduce the major processes that have shaped Earth's environment. The course examines climatic processes on geological time scales, the evolution of organisms, the cycling of elements, and the feedbacks between these processes.(Format: Lecture 3 Hours)(Exclusion: ENVS 3001)

**GENS 3461 (3.00 CR)****OCEANOGRAPHY**

**Prereq:** GENS 1401; GENS 2421; 6 credits from BIOL 1001, BIOL 1501, BIOC 1001, CHEM 1001, PHYS 1041, PHYS 1051; or permission of the Department

This course introduces the interdisciplinary field of Oceanography, covering many of the fundamental biological, chemical, geological, and physical processes in the ocean. Topics include the physical and chemical properties of seawater, oceanic box models and climate models, controls on the vertical and horizontal distribution of elements in the sea, controls on primary production, and the climate record in ocean sediments. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**GENS 3471 (3.00 CR)****LIMNOLOGY**

**Prereq:** 3 credits from GENS 2431, BIOL 2701; 9 credits from BIOL 1001, BIOL 2101, BIOC 1001, CHEM 1001, PHYS 1041, PHYS 1051; or permission of Department

This course examines the structure and function of freshwater ecosystems. It emphasizes the physical, chemical, and biological processes that occur within lakes and, to a lesser extent, river and wetland environments. The course also covers the diversity of, and interactions between, major biological communities in lakes and highlights environmental stressors that threaten freshwaters. (Format: Lecture 3 Hours) (Exclusion: GENS 3991 Stressors on Freshwater Systems; GENS 3991 Limnology)

**GENS 3991 (3.00 CR)****SPECIAL TOPIC IN GEOGRAPHY AND ENVIRONMENT**

**Prereq:** Third-year standing; GENS 1401; or permission of the Department

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for GENS 3991 more than once, provided the subject matter differs.] (Format: Variable)

**GENS 4401 (3.00 CR)****BIOMONITORING METHODS**

**Prereq:** GENS 3421; GENS 3471; 3 credits from GENS 2431, BIOL 2701; or permission of the Department

This course focuses on the application of modern survey and paleoenvironmental methods in the assessment of environmental change and investigates bioindicator responses across time or space. The course also introduces aspects of design, analysis, and interpretation relevant to environmental science and biomonitoring programs. Topics of investigation may include the effects of climate change or shifts in water quality, and bioindicator distributions across ecological gradients. (Format: Laboratory 3 Hours) [Note 1: This course may require attendance at an off-campus field location outside of regular course hours.]

**GENS 4421 (3.00 CR)****SEMINAR IN ENVIRONMENTAL SCIENCE**

**Prereq:** Registration in the final year of a Major or Honours in Environmental Science

This course examines current issues in environmental science. Students prepare case studies of specific problem areas in environmental science and present these in a seminar format. (Format: Seminar 3 Hours)(Exclusion: ENVS 4901)

**GENS 4701 (3.00 CR)****ADVANCED FIELD COURSE**

**Prereq:** 3 credits from GENV 3701, GENS 3401; permission of the Department

This is an extended field course to be completed outside the September-May academic year in which students complete a supervised original research project at an off-campus location. [Note 1: This course is cross-listed as GENV 4701 and may therefore count as 3 credits in either discipline.](Format: Field Course)(Exclusion: GEOG 4701)

**GENS 4721 (3.00 CR)****ADVANCED GEOGRAPHIC INFORMATION SYSTEMS**

**Prereq:** GENS 2431; GENS 2441; or permission of the Department

This course builds on the key concepts from GENS 2441 by introducing programming for automation and exploring advanced methods for producing and visualizing surfaces and data. It increases students' proficiency in the application of GIS and prepares them to conduct sophisticated spatial analyses. (Format: Lecture/Laboratory 3 Hours)(Exclusion: GENS 4951 Advanced Geographic Information Systems)

**GENS 4950 (6.00 CR)****INDEPENDENT STUDY IN GEOGRAPHY AND ENVIRONMENT**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for GENS 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**GENS 4951 (3.00 CR)****INDEPENDENT STUDY IN GEOGRAPHY AND ENVIRONMENT**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for GENS 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**GENS 4990 (6.00 CR)****HONOURS THESIS**

This course comprises independent research and study under the direction of a supervisor approved by the department. (Format: Independent Study/Thesis) [Note 1: Permission of the Department is required.]

**GENS 4991 (3.00 CR)**  
**SPECIAL TOPIC IN GEOGRAPHY AND ENVIRONMENT**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for GENS 4991 more than once, provided the subject matter differs.] (Format: Variable)

**GENV COURSES**

**GENV 1201 (3.00 CR)**  
**THE HUMAN ENVIRONMENT**

This course introduces the study of the human population and the spatial dimensions of environmental change. It examines how people interact with the environment and the core forces which shape these interactions, including population, culture, technology, and geography. (Format: Lecture 3 Hours) (Distribution: Social World-c) (Exclusion: GEOG 1201)

**GENV 1991 (3.00 CR)**  
**SPECIAL TOPIC IN GEOGRAPHY AND ENVIRONMENT**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for GENV 1991 more than once, provided the subject matter differs.] (Format: Variable)

**GENV 2001 (3.00 CR)**  
**CONTEMPORARY ENVIRONMENTAL STUDIES**

This course reviews how different disciplines are brought to bear on the study of environmental issues. Some of the topics considered in this survey include the role of environmental philosophy and activism, interactions between science and environmental politics, environmental or ecological economics, and sustainable development. (Format: Lecture 3 Hours)(Distribution: Social World-c) (Exclusion: ENST 1001)

**GENV 2101 (3.00 CR)**  
**NATURAL RESOURCES MANAGEMENT**

This course introduces key concepts and issues in natural resources management. It examines resource sectors of importance to the Canadian economy, including forestry, fisheries, wildlife, energy, mining, water, and agriculture. The course emphasizes understanding the varied influences that environmental, socio-economic, and political factors have on patterns of resource utilization and resource management decision-making. (Format: Lecture 3 Hours)(Exclusion: GEOG 2101)

**GENV 2201 (3.00 CR)**  
**GEOGRAPHY OF ECONOMIC ACTIVITY**

This course examines the changing spatial organization of the world industrial map since 1945 by comparing British and North American de-industrialization with the rapid growth of some sectors of newly industrialized countries, including the effects of new production technology, changes in industrial organization and transnational corporations and new regional trading blocs on those changing patterns are discussed. (Format: Lecture 3 Hours) (Exclusion: GEOG 2201)

**GENV 2221 (3.00 CR)**  
**THE DEVELOPING WORLD**

This course surveys the changing geography of the developing world. It examines the decline in traditional land systems and resource use, surveys current economic development strategies, and reviews the role of international aid and non-governmental organizations in these strategies. (Format: Lecture 3 Hours) (Exclusion: GEOG 2201)

**GENV 2811 (3.00 CR)**  
**URBAN SOCIAL GEOGRAPHY**

This course introduces the central concepts in urban geography by considering the historical and contemporary role of cities in the global landscape. It also investigates the shifting attitudes towards city life and city dwellers from the Industrial Revolution to the present day with an emphasis on social issues in the post-industrial city. Throughout this examination it emphasizes the place and development of Canadian cities. (Format: Lecture 3 Hours) (Exclusion: GENV 3811)

**GENV 2991 (3.00 CR)**  
**SPECIAL TOPIC IN GEOGRAPHY AND ENVIRONMENT**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for GENV 2991 more than once, provided the subject matter differs.] (Format: Variable)

**GENV 3101 (3.00 CR)**  
**ENVIRONMENT AND DEVELOPMENT**

**Prereq:** 3 credits from GENV 2001, 2101; GENV 2221; or permission of the Department

This course examines current thinking on the relationship between environment and development. Topics may include: sustainable development, rural land use change, tropical deforestation and forest management, indigenous environmental knowledge, and community-based conservation. (Format: Lecture 3 Hours)(Exclusion: GEOG 3101)

**GENV 3111 (3.00 CR)****GENDER, RACE, AND ENVIRONMENTAL JUSTICE**

**Prereq:** 3 credits from GENV 1201, 2001; or permission of the Department

This course examines the ways in which environmental inequalities such as exposure to pollution, health risks, and lack of access to clean air, water, and food reflect, sustain, and reproduce gendered and racial inequalities. Focusing primarily on Canada, this course investigates the ways that Feminist, Indigenous, and Anti-racist Movements inform the concept of environmental justice and contemporary environmental movements. (Format: Seminar 3 Hours) (Exclusion: GENV 3991 Gender, Race, and Environmental Justice)

**GENV 3201 (3.00 CR)****CANADIAN ENVIRONMENTAL POLICY**

**Prereq:** GENV 2001; 3 credits from GENV 2221, ECON 1001; or permission of the Department

This course studies the politics and policies of environmental problem-solving within the Canadian context. It examines key features of the Canadian political system - its parliamentary structure, robust federalism among others - in light of the nation's evolving environmental policy. It pays particular attention to the role of stakeholder dynamics and alternative regulatory tools and strategies (e.g., pollution taxes, best available technology, etc.). (Format: Lecture 3 Hours)(Exclusion: GEOG 3201)

**GENV 3211 (3.00 CR)****TRANSPORTATION GEOGRAPHY**

**Prereq:** GENV 1201; GENV 2201; or permission of the Department

This course investigates the impact of changing transport and communication technologies on spatial organization. Topics may include: the transportation-infrastructure problem and proposed solutions from a geographic perspective; an analysis of the land use-transportation system in North American cities; its social and environmental impacts; the analysis of travel behaviour; and the geographical implications of various policy and planning alternatives. (Format: Lecture 3 Hours)(Exclusion: GEOG 3211)

**GENV 3321 (3.00 CR)****GEOGRAPHY OF JAPAN**

**Prereq:** Third-year standing; 3 credits from GENV 1201, HIST 1611; or permission of the Department

This course examines Japan's geography since 1860, emphasizing the importance of international trade and new technologies and their roles in forming new geographic relationships for Japan with other parts of East Asia and with the West. (Format: Lecture 3 Hours)(Exclusion: GEOG 3321)

**GENV 3511 (3.00 CR)****RURAL AND SMALL TOWN CANADA**

**Prereq:** GENV 1201; 3 credits from GENV 2101, 2201; or permission of the Department

This course examines land use patterns as well as the environmental, social, economic and political structures of Canadian rural areas and small towns. It uses an integrated approach to resolving rural and small town development issues. (Format: Lecture 3 Hours)(Exclusion: GEOG 3511)

**GENV 3531 (3.00 CR)****THE PLANNING PROCESS**

**Prereq:** GENV 1201; 3 credits from GENV 2101, 2201; or permission of the Department

This course examines community responses to the necessity and challenge of growth. Discussion focuses on the contributions of planning to the process of development and to the outcomes and opportunities which parallel this process. (Format: Lecture 3 Hours)(Exclusion: GEOG 3531)

**GENV 3701 (3.00 CR)****RESEARCH METHODS IN HUMAN GEOGRAPHY AND ENVIRONMENT**

**Prereq:** Third-year standing; GENS 2431; permission of the Department

This course presents a critical examination of current research techniques. Students design, implement, complete and evaluate a field research project in Human Geography and Environment. [Note 1: This course requires attendance at an off-campus field camp and students must cover some field trip costs.](Format: Lecture 3 Hours, Multi-Day Field Camp)(Exclusion: GEOG 3701)

**GENV 3801 (3.00 CR)****PLACE MATTERS**

**Prereq:** Third-year standing; GENV 1201; or permission of the Department

This course addresses the importance of 'place' in the development of human interactions with the environment. It examines the principles of place geography, including ecological and bioregional perspectives on the Sackville and Tantramar region; place-conscious learning and sustainability; place-making and local geographies; and the local community as a place for experiential learning. (Format: Seminar 3 Hours)(Exclusion: GENV 2991 Place Matters; GENV 4951 Place Geography)

**GENV 3831 (3.00 CR)****GEOGRAPHY OF GLOBAL CITIES**

**Prereq:** GENV 2811; 3 credits from GENV 2201, 2221; or permission of Department

This course explores the rise in importance of global cities in the era of economic globalization. As command centres of the global economy, global cities serve as hubs of technology, knowledge, finance, culture, immigration, and tourism. It examines the differing roles of cities in the global north and global south with particular attention to issues of employment, environment, and inequality. (Format: Lecture 3 Hours) (Exclusion: GENV 4821 if taken in Winter 2011)

**GENV 3991 (3.00 CR)****SPECIAL TOPIC IN GEOGRAPHY AND ENVIRONMENT**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for GENV 3991 more than once, provided the subject matter differs.] (Format: Variable)

**GENV 4101 (3.00 CR)****SEMINAR IN ENVIRONMENTAL ISSUES**

**Prereq:** GENV 1201; GENV 2001; GENS 1401; or permission of the Department

This course examines the current state of scientific knowledge related to various contemporary environmental issues and the public policy implications of these issues. (Format: Seminar 3 Hours)(Exclusion: GEOG 4101)

**GENV 4111 (3.00 CR)****INTERNATIONAL ENVIRONMENTAL AFFAIRS**

**Prereq:** GENV 3201; or permission of the Department

This course explores international environmental problems and their solutions. It examines climate change, biodiversity, conservation, international marine pollution, and the relationship between trade and environment, among other topics, giving particular consideration to the roles of science, civil society, and international governance. (Format: Lecture/Seminar 3 Hours)(Exclusion: GEOG 4101)

**GENV 4121 (3.00 CR)****EDUCATION FOR SUSTAINABLE DEVELOPMENT**

**Prereq:** Third-year standing; GENV 1201; GENV 2001; or permission of the Department

This course explores geographic and environmental education encompassing formal, informal, and traditional ideas and practices and the ways in which these may be integrated in planning for a sustainable society. It takes a critical approach to environmental education with an emphasis on developing and practicing sustainable perspectives on how people learn about, think about, and manage their affairs within the natural environment. (Format: Lecture 3 Hours)(Exclusion: GENV 4951 Environmental Education; GENV 4951 Geographical and Environmental Education; GENV 4951 Geographical Education; GENV 4951 Sustainable Education)

**GENV 4201 (3.00 CR)****CANADIAN ENVIRONMENTAL PLANNING AND MANAGEMENT**

**Prereq:** GENV 3201; or permission of the Department

This course examines the theory, methods, regulatory frameworks and social implications of Environmental Impact Assessment (EIA), providing a basis for deciding whether and how to proceed with a proposed resource development project so as to prevent or minimize environmental degradation. Students consider the overall Canadian environmental planning and management process with an emphasis on recent Canadian case studies. (Format: Lecture/Seminar 3 Hours)(Exclusion: GEOG 4101)

**GENV 4211 (3.00 CR)****RESOURCE COMMUNITIES AND THE MULTINATIONAL CORPORATION**

**Prereq:** GENV 2101; GENV 2201; or permission of the Department

This course explores the economic geography of resource industries with a focus on the role that large corporations play in shaping the fortunes of communities where they operate. Its conceptual themes include staples theory, industrial restructuring, the 'greening' (or greenwashing) of economic activity, and the use and abuse of environmental science by corporate interests. These issues are grounded in examinations of regional resource sectors, including forestry and fishing, as well as international case studies. (Format: Seminar 3 Hours)

**GENV 4521 (3.00 CR)****SEMINAR IN COMMUNITY PLANNING RESEARCH**

**Prereq:** GENS 2431; GENV 3531; or permission of the Department

This course applies community planning theory and techniques to an actual case developed in concert with a local community. Students clarify client objectives, develop a research and analysis program, conduct fieldwork, analyze data, prepare recommendations, and present results to the client. (Format: Seminar 3 Hours)(Exclusion: GEOG 4521)

**GENV 4701 (3.00 CR)****ADVANCED FIELD COURSE**

**Prereq:** 3 credits from GENV 3701, GENS 3401; permission of the Department

This is an extended field course to be completed outside the September-May academic year in which students complete a supervised original research project at an off-campus location. [Note 1: This course is cross-listed as GENS 4701 and may therefore count as 3 credits in either discipline.](Format: Field Course)(Exclusion: GEOG 4701)

**GENV 4811 (3.00 CR)****GENDER, CULTURE AND THE CITY**

**Prereq:** GENV 2811; or permission of the Department

This course examines the relationship between socially constructed gender relations and the nature and form of urban areas. Students consider how social and cultural categories and historical processes shape the production of urban space, and how we in turn are shaped by it. (Format: Lecture 3 Hours)(Exclusion: GEOG 4811)

**GENV 4821 (3.00 CR)****SEMINAR IN URBAN ISSUES**

**Prereq:** GENV 2201; GENV 2811; GENV3211; or permission of the Department

This course explores a selected contemporary urban issue focusing in any given year on topics such as the political geography of the Canadian urban movement, the urban dynamics of key world cities, cities in the developing world, and cities and the 'new' economy. [Note 1: Students may register for GENV 4821 more than once, provided the subject matter differs.] (Format: Seminar 3 Hours) (Exclusion: GEOG 4821)

**GENV 4950 (6.00 CR)****INDEPENDENT STUDY IN GEOGRAPHY AND ENVIRONMENT**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for GENV 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)



**GENV 4951 (3.00 CR)****INDEPENDENT STUDY IN GEOGRAPHY AND ENVIRONMENT**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study.

[Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for GENV 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**GENV 4990 (6.00 CR)****HONOURS THESIS**

This course comprises independent research and study under the direction of a supervisor approved by the Department. (Format: Independent Study/Thesis) [Note 1: Permission of the Department is required.]

**GENV 4991 (3.00 CR)****SPECIAL TOPIC IN GEOGRAPHY AND ENVIRONMENT**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for GENV 4991 more than once, provided the subject matter differs.] (Format: Variable)

**GENV 4993 (3.00 CR)****SPECIAL TOPIC IN GEOGRAPHY AND ENVIRONMENT**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for GENV 4991 more than once, provided the subject matter differs.] (Format: Variable)

**GERMAN STUDIES**

See Modern Languages and Literatures

**GREEK**

See Classical Studies

**HISPANIC STUDIES**

See Modern Languages and Literatures

## HISTORY

History is an ideal instrument of liberal education. It develops analytical and communication skills and also fosters knowledge and understanding of the institutions, ideas, groups, and individuals which have shaped the political, social, and cultural world of humankind. Though historical study encourages critical thinking, it also engenders a sensitive understanding of the past, avoiding what one historian has called "the condescension of posterity" (E. P. Thompson, *Making of the English Working Class*, 1963 preface). As another historian reminds us, "the past is not some remote and abstract catalogue of names and dates, but the very fabric of individual [and social] identity" (J.C.D. Clark, *Our Shadowed Present*, 2003 introduction).

Though it is impossible to study all significant past peoples, events, and cultures, the Mount Allison History Department offers a rich variety of both subject matter and interpretive approach through individualized programs designed to achieve both coherence and depth. Courses are regularly available at all levels in most major periods of Canadian, American, European, and Asian history. Here one can study the human experience in all its rich diversity: class and gender, wealth and poverty, faith and science, self and social identity, government and politics, and war and peace.

The skills and rigor which the study of history imparts make it an excellent preparation for many career paths: teaching, law, public administration, and politics, to name a few. More than this, with its breadth and depth, it contributes to responsible global citizenship in a free and humane world.

## BASIC COURSES

The Humanities 1600 series is intended to provide an introduction to Humanities disciplines. These three-credit courses offered by the participating disciplines of Classics, History, Philosophy and Religious Studies are designed to acquaint beginning students with the methodologies typical of these disciplines and to familiarize them with the approaches taken, as well as the sorts of themes pursued and questions raised in these disciplines.

Students will normally take courses in sequential order from first through fourth years. Further information about specific courses, faculty members and special programs is available in the Department of History Handbook. Students should also be familiar with the university requirements for the B.A. degree, outlined in section 11.2 of the academic calendar.

## Disciplinary B.A. Programs

### MINOR in History is 24 credits earned as follows:

- 6 from the Humanities 1600 Series
- 18 from History above the 1600 level, including 6 from the 3/4000 level, chosen in consultation with the Program Advisor

### MAJOR in History is 60 credits earned as follows:

- 6 from the Humanities 1600 Series
- 12 6 each chosen from two of the following subject areas:  
Note: The courses in each subject area are paired
  1. European History 2001 and 2011; or 2031 and 2041
  2. North American History 2411 and 2421; or 2511 and 2521

- 3. Asia Pacific History 2721 or 2741; and 2731
- 21 from History at the 2/3/4000 level. At least 15 of these must be at the 3/4000 level
- 3 from History at the 4000 level
- 18 from complementary courses in Arts and Letters, Humanities, and Social Sciences, chosen in consultation with the Program Advisor. The department recommends strongly that 6 of these credits be selected from introductory courses in a single language offered by the Department of Modern Languages and Literatures or the Classics Department: FREN 1651, 1701, 1711 (as determined by placement); GERM 1001 and GERM 1011; JAPA 1001 and JAPA 1011; SPAN 1101 and SPAN 1111; GREK 1001 and GREK 1101; or LATI 1001 and LATI 1101. (Students may substitute intermediate or advanced language courses according to placement by the Department of Modern Languages and Literatures or the Classics Department or courses in another language taken by transfer approved by the History Department).

### HONOURS in History (Thesis Option) is 72 credits earned as follows:

- 39 from the first three lines of the major, plus:
  - 6 from language courses in a single language other than English. Students may select from the following introductory courses offered by the Department of Modern Languages and Literatures or the Classics Department: FREN 1651, 1701, 1711 (as determined by placement); GERM 1001 and GERM 1011; JAPA 1001 and JAPA 1011; SPAN 1101 and 1111; GREK 1001 and GREK 1101; or LATI 1001 and LATI 1101. (Students may substitute intermediate or advanced language courses according to placement by the Department of Modern Languages and Literatures or the Classics Department or courses in another language taken by transfer approved by the History Department).
- 15 from History at the 3/4000 level
- 6 from HIST 4990
- 6 from History at the 4000 level, chosen in consultation with the Program Advisor

### HONOURS in History (Course Option) is 72 credits earned as follows:

- 39 from the first three lines of the major, plus:
  - 6 from language courses in a single language other than English. Students may select from the following introductory courses offered by the Department of Modern Languages and Literatures or the Classics Department: FREN 1651, 1701, 1711 (as determined by placement); GERM 1001 and GERM 1011; JAPA 1001 and JAPA 1011; SPAN 1101 and 1111; GREK 1001 and GREK 1101; or LATI 1001 and LATI 1101. (Students may substitute intermediate or advanced language courses according to placement by the Department of Modern Languages and Literatures or the Classics Department or courses in another language taken by transfer approved by the History Department).
- 15 from History at the 3/4000 level
- 12 from History at the 4000 level, chosen in consultation with the Program Advisor

## HISTORY COURSES

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following courses can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees:

HIST 1600 series\*, 2001, 2011, 2021\*, 2031, 2041, 2411, 2421, 2511, 2731, 2741

\*HIST/CLAS cross-listed courses (HIST/CLAS 1631 and 2021) may not be used for distribution in combination with other Classics or History courses.

### HIST 1601 (3.00 CR) OLD AND NEW NATIONS IN NORTH AMERICA

This course examines themes in North American history from the sixteenth century to the 1860s, with a particular emphasis on the interaction of Indigenous, European, and West African peoples, and on the formation of the new states. (Format: Lecture 3 Hours) (Exclusion: any version of HIST 1601 previously offered with a different title) (Distribution: Humanities-b)

### HIST 1611 (3.00 CR) THE EXPANSION OF EUROPE ABROAD

This course focuses on the expansion of Europe after the fifteenth century and the impact of that expansion on both Native peoples and on European civilization. Themes include the creation of a world economy, racial relations, the rise and fall of European power, the impact of technology, the growth of indigenous nationalism, and the legacy of European expansion. (Format: Lecture 3 Hours) (Distribution: Humanities-b)

### HIST 1621 (3.00 CR) CANADIAN SOCIAL HISTORY: HOME, WORK AND PLAY

This course examines people's lives in Canada from 1840 to the present. It combines economic structures and social experiences to document the domestic space of the home and the industrial workplace, as well as public sites of leisure and recreation, and the semi-public spaces of commerce and institutions. (Format: Lecture/Tutorial 3 Hours) (Distribution: Humanities-b)

### HIST 1631 (3.00 CR) GREECE AND ROME: THE FOUNDATIONS OF WESTERN CIVILIZATION

This course surveys the political and social history of ancient Greece and Rome with a focus on the themes of Law, Politics, War, and Society. It pays particular attention to Athens in the fifth and fourth centuries B.C.E. and to Rome under Caesar Augustus. [Note 1: This course is cross-listed as CLAS 1631 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours) (Distribution: Humanities-b)

### HIST 1641 (3.00 CR) TOWN LIFE IN THE MIDDLE AGES

This course treats the development of town life in Europe from the late tenth century through the fifteenth century. Themes include: social and political experimentation and organization, expansion of commerce and production, religious observance and intellectual life, and female experience of town life. (Format: Lecture 3 Hours) (Distribution: Humanities-b)

### HIST 1661 (3.00 CR) FRANCE IN THE AGE OF REVOLUTION

This course examines the social, cultural, economic, and political forces that combined to produce the French Revolution placing particular emphasis on use of primary sources for reconstructing revolutionary experience. Themes include: society in the ancien régime, the Enlightenment, revolutionary political experimentation, war, women and revolution, and the Terror. (Format: Lecture/Tutorial 3 Hours) (Distribution: Humanities-b) (Exclusion: HIST 3371)

### HIST 1671 (3.00 CR) HISTORICAL PERSPECTIVES ON WOMEN AND GENDER IN MODERN EUROPE

This course surveys women's lives in modern Europe from the Enlightenment until the twentieth century creation of the European Union. (Format: Lecture/Tutorial 3 Hours) (Exclusion: HIST 3361)

### HIST 1681 (3.00 CR) THE USES AND ABUSES OF HISTORY

This course explores the processes by which people build arguments and make decisions based, in part, on a particular understanding of the past. By a series of case studies and grounded in the practice of evidence-based reasoning it demonstrates how history is a fundamental tool in many forms of decision-making and, therefore, why history matters. (Format: Lecture 3 Hours) (Distribution: Humanities-b) (Exclusion: HIST 1991 The Uses and Abuses of History)

### HIST 1691 (3.00 CR) AMERICAN SOCIAL MOVEMENTS IN THE 60S

This course examines the United States during the 1960s, focusing on the Civil Rights, Counter Culture, and Student and Anti-war Movements. (Format: Lecture 3 Hours) (Distribution: Humanities-b) (Exclusion: HIST 1991 American Social Movements in the 60s)

### HIST 1991 (3.00 CR) SPECIAL TOPIC IN HISTORY

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for HIST 1991 more than once, provided the subject matter differs.] (Format: Variable)

**HIST 2001 (3.00 CR)**  
**EUROPE DURING THE MEDIAEVAL ERA**

This course surveys the history of mediaeval civilization from c.300 to c.1300. By investigating the changing ways the peoples of western Eurasia organized their political, social, and economic relationships and pursued, and frequently contested, ideals of learning, sacredness, and beauty, it provides an introduction to the methods historians use to construe the past, giving particular attention to the close reading and interpretation of contemporary documents. (Format: Lecture 3 Hours) (Distribution: Humanities-b) (Exclusion: HIST 2000; any version of HIST 2001 previously offered with a different title)

**HIST 2011 (3.00 CR)**  
**EUROPE DURING THE RENAISSANCE AND REFORMATION**

This course continues HIST 2001, surveying with the same objectives the history of civilization among the peoples of western Eurasia from c.1300 to c.1600. It provides an introduction to the methods historians use to construe the past and training in the close reading and interpretation of contemporary documents. (Format: Lecture 3 Hours) (Distribution: Humanities-b) (Exclusion: HIST 2000; any version of HIST 2011 previously offered with a different title)

**HIST 2021 (3.00 CR)**  
**ALEXANDER THE GREAT AND THE HELLENISTIC WORLD**

This course examines the career of Alexander the Great and the Hellenistic era that followed his conquest of the eastern Mediterranean. The main themes include the goals of Alexander, the new political climate of kingship and patronage that he helped create, the interaction of the Greeks with the civilizations of Egypt and the East, and the integration of new cultural ideas into Greek society. [Note 1: This course is cross-listed as CLAS 2021 and may therefore count as 3 credits in either discipline.](Format: Lecture 3 Hours) (Distribution: Humanities-b) (Exclusion: HIST/CLAS 3011)

**HIST 2031 (3.00 CR)**  
**THE HISTORY OF EARLY MODERN EUROPE, 1500-1800**

This course surveys the history of Early Modern Europe between 1500 and 1800. It examines the social, cultural, economic, and political developments from the period of the Reformation to the Napoleonic era. Themes include: religious conflict, rural life, capital accumulation, the Enlightenment, absolutism, imperial expansion, war, and revolution. It emphasizes the study of history through an introduction to the methods, theories, and concepts that historians use to represent and interpret the past. (Format: Lecture 3 Hours) (Distribution: Humanities-b) (Exclusion: HIST 2010, HIST 2500)

**HIST 2041 (3.00 CR)**  
**EUROPE IN THE NINETEENTH CENTURY**

This course provides a comprehensive survey of the 'long nineteenth century' from 1789 to 1914. Themes include: revolution, war, intellectual and artistic developments, national unification, social conflict, and imperial rivalry and expansion. It emphasizes thinking about history through an examination of theoretical approaches and the interpretation of primary sources. (Format: Lecture/Tutorial 3 Hours) (Distribution: Humanities-b) (Exclusion: HIST 2010, HIST 2500)

**HIST 2051 (3.00 CR)**  
**WOMEN IN ANTIQUITY**

Using written and material evidence, this course will explore the economic, social and political roles of women in the societies of ancient Greece and Rome, as well as the development of the Western idea of the female in antiquity. Secondly, it will introduce and explore the social theories commonly applied to the study of gender in history. [Note 1: This course is cross-listed as CLAS 2051 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours)

**HIST 2411 (3.00 CR)**  
**CANADA TO 1871**

This course introduces students to the political, socio-economic, and cultural history of Canada from the pre-European period to the first federal census. (Format: Lecture 3 Hours) (Distribution: Humanities-b) (Exclusion: HIST 2410, 3100, 3250)

**HIST 2421 (3.00 CR)**  
**CANADA AFTER 1871**

This course examines the socio-economic, political, and cultural life of Canada from the time of the first federal census in 1871 to the present. (Format: Lecture 3 Hours) (Distribution: Humanities-b) (Exclusion: HIST 2410, 3100, 3250)

**HIST 2511 (3.00 CR)**  
**THE AMERICAN EXPERIENCE TO 1865**

This course introduces students to the main events, themes and issues of American history from the colonial period through the Civil War. (Format: Lecture 3 Hours) (Distribution: Humanities-b) (Exclusion: HIST 2510, 3650)

**HIST 2521 (3.00 CR)**  
**THE AMERICAN EXPERIENCE AFTER 1865**

**Prereq:** HIST 2511; or permission of the Department

This course introduces students to the main events, themes and issues of American history from the Civil War to the present. (Format: Lecture 3 Hours)(Exclusion: HIST 2510, 3650)

**HIST 2731 (3.00 CR)**  
**ASIA IN WORLD HISTORY**

This survey course focuses on the historical events and processes that led to the formation of modern Asia since the nineteenth century. Central to this story are the ways in which the peoples of this diverse region have struggled to understand, adapt to, and simultaneously re-define their understanding of what it means to be modern. (Format: Lecture/Tutorial, 3 Hours) (Distribution: Humanities-b) (Exclusion: HIST 2700; any version of HIST 2731 previously offered with a different title)

**HIST 2741 (3.00 CR)**  
**ASIA, THE WORLD, AND BIG HISTORY**

This course introduces the concept 'Big History', the history of the universe since the beginning of time, to place the human experience in the broadest possible context. Moving from the big to the small, the course explores general patterns of human history such as migration and exchange, ending with a survey of historical trends in Asia over the past two thousand years. (Format: Lecture/Tutorial, 3 Hours) (Distribution: Humanities-b) (Exclusion: HIST 2721)

**HIST 2801 (3.00 CR)**  
**INDIGENOUS CANADA: A SURVEY**

**Prereq:** 3 credits from CANA 1001, CANA 1011; or permission of the Program Director

This course explores the history of Indigenous peoples in Canada with a focus on the processes of colonialism, resistance, resurgence, and survival. [Note 1: This course is cross-listed as HIST 2801 and may therefore count as 3 credits in either discipline] (Format: Lecture 3 Hours)

**HIST 2991 (3.00 CR)**  
**SPECIAL TOPIC IN HISTORY**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for HIST 2991 more than once, provided the subject matter differs.] (Format: Variable)

**HIST 3001 (3.00 CR)**  
**DEMOCRACY AND IMPERIALISM IN CLASSICAL GREECE**

**Prereq:** Second-year standing; 3 credits from CLAS, HIST at the 1/2000 level; or permission of the Department

An examination of archaic and classical Greek history and civilization from the emergence of the polis to the fall of the Athenian empire. Main themes include the development of political institutions, warfare, and gender relations. Emphasis is placed on historical methods and the interpretation of ancient evidence. [Note 1: This course is cross-listed as CLAS 3001 and may therefore count for three credits in either discipline.] (Format: Lecture 3 Hours)

**HIST 3021 (3.00 CR)**  
**CONQUEST AND EXPANSION: THE RISE AND FALL OF THE ROMAN REPUBLIC**

**Prereq:** Second-year standing; 3 credits from CLAS, HIST at the 1/2000 level; or permission of the Department

An examination of the development of Rome from a small city-state into the leading power in the Mediterranean. Main themes include the conflict between Rome and Carthage, the conquest of the Hellenistic East, and the political and social changes in Roman society. There will be an emphasis on the analysis and interpretation of primary sources in translation. [Note 1: This course is cross-listed as CLAS 3021 and may therefore count for three credits in either discipline.] (Format: Lecture 3 Hours)

**HIST 3031 (3.00 CR)**  
**THE ROMAN EMPIRE: CENTRE AND PERIPHERY**

**Prereq:** Second-year standing; 3 credits from CLAS, HIST at the 1/2000 level; or permission of the Department

An examination of the history of imperial Rome from the age of Augustus to that of Constantine. Main themes include the imperial form of government, the Roman army, urban development and its impact on society, and the conflicts between Romans and other cultures. There will be an emphasis on the analysis and interpretation of primary sources in translation. [Note 1: This course is cross-listed as CLAS 3031 and may therefore count for three credits in either discipline.] (Format: Lecture 3 Hours)

**HIST 3051 (3.00 CR)**  
**HEALTH AND MEDICINE IN THE ANCIENT WORLD**

**Prereq:** Second-year standing; 3 credits from CLAS, HIST, PHIL; or permission of the Department

Employing both material and literary evidence, this course surveys the conditions of life and common ailments and treatments of the inhabitants of the Greek and Roman world from ca. 1000 BC.E. to ca. 500 C.E.. It also examines the origins of Western medicine in Greek and Roman science, alongside its alternatives, such as magic. [Note 1: This course is cross-listed as CLAS 3051 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours)

**HIST 3121 (3.00 CR)**  
**THE RENAISSANCE IN ITALY AND BEYOND**

**Prereq:** 6 credits from HIST at the 2000 level; HIST 2011 recommended; or permission of the Department

This course treats the remarkable cultural flowering that began during the mid-thirteenth century in the politically and socially volatile city-states of northern Italy before spreading during the fifteenth century to the courts, city halls, print-shops, monasteries, and schools of northern Europe. (Format: Lecture 3 Hours)(Exclusion: HIST 3110; any version of HIST 3121 previously offered with a different title)

**HIST 3141 (3.00 CR)**  
**EARLY MEDIAEVAL EUROPE**

**Prereq:** 6 credits from HIST at the 2000 level; HIST 2001 recommended; or permission of the Department

This course treats the history of Europe from the disintegration of Roman imperial authority in the fifth century to the collapse of the Carolingian empire in the course of the ninth and early tenth centuries. Themes include: the establishment of Germanic 'successor' kingdoms, development of the papacy, missionary activities to Christianize pagan peoples, and the reigns of Charlemagne and his descendants. (Format: Lecture 3 Hours)(Exclusion: HIST 3050; HIST 3141 Celtic and Germanic Europe to the Age of Charlemagne)

**HIST 3151 (3.00 CR)****EUROPE IN THE HIGH MIDDLE AGES**

**Prereq:** 6 credits from HIST at the 2000 level; HIST 2001 recommended; or permission of the Department

This course treats the history of Europe from the tenth through the mid-fourteenth centuries. Themes include: success and failure in the development of national monarchies, the growth of papal authority and prestige, new forms of religious expression and practice, university life and scholarship, and the calamities of the fourteenth century. (Format: Lecture 3 Hours)(Exclusion: HIST 3050; HIST 3151 Europe in the Age of Chivalry)

**HIST 3161 (3.00 CR)****THE CRUSADES**

**Prereq:** 6 credits from HIST at the 2000 level; HIST 2001 recommended; or permission of the Department

This course treats the European crusading movement from the eleventh through the fifteenth centuries, examining not only familiar expeditions to Palestine but also the use of crusades to sanction conquest and colonization along mediaeval European frontiers in Spain and northeastern Europe and to combat religious and political challenges to papal authority. (Format: Lecture 3 Hours)

**HIST 3211 (3.00 CR)****REVOLUTION AND STABILITY: POLITICS AND SOCIETY IN EARLY MODERN BRITAIN 1603-1820**

**Prereq:** 6 credits from HIST at the 1/2000 level; 3 credits from HIST 1601, 2011, 2031 recommended; or permission of the Department

This course explores the ideological and socio-economic roots of the seventeenth century constitutional struggles that established the sovereignty of Parliament in Stuart Britain, and it traces the re-establishment of social and political stability from the Glorious Revolution through the Hanoverian Period. (Format: Lecture 3 Hours)(Exclusion: HIST 3400)

**HIST 3221 (3.00 CR)****MODERN BRITAIN**

**Prereq:** 6 credits from HIST at the 1/2000 level; 3 credits from HIST 2041, 3211, 3251 recommended; or permission of the Department

This course traces the development of those institutions, movements, and ideas that are an integral part of the texture of modern Britain, and that have been shaping influences on the direction and pace of social, intellectual, economic, and political growth. (Format: Lecture 3 Hours)

**HIST 3231 (3.00 CR)****PAX BRITANNICA: BRITAIN'S GLOBAL HEGEMONY, 1650-1885**

**Prereq:** 6 credits from HIST at the 1/2000 level; 3 credits from HIST 1601, 1611, 2031 recommended; or permission of the Department

This course examines Britain's rise to world power from the mid-seventeenth to the late nineteenth century with special reference to foreign policy, naval supremacy, international economic influence, and the acquisition of empire, together with its impact on both governors and governed. (Format: Lecture 3 Hours)(Exclusion: Any version of HIST 3231 previously offered with a different title)

**HIST 3241 (3.00 CR)****IMPERIAL SUNSET: BRITAIN'S RETREAT FROM WORLD POWER 1885 TO THE PRESENT**

**Prereq:** 6 credits from HIST at the 1/2000 level; 3 credits from HIST 2041, 2721, 2731, 3231 recommended; or permission of the Department

This course analyses Britain's decline as a world power, its replacement in that role by the United States, its relations with the emerging nation states of the Third World, and its uneasy participation in the European Community. Topics include: interwar development policies for Africa, Indian nationalism, World War II and the decolonization of Asia and Africa, the 'special relationship' with the USA, the evolution of the European Community, and continued underdevelopment in the Third World. (Format: Lecture 3 Hours)(Exclusion: Any version of HIST 3241 previously offered with a different title)

**HIST 3251 (3.00 CR)****CLASS, GENDER, AND CAPITALISM: THE TRANSFORMATION OF THE BRITISH SOCIAL STRUCTURE 1750-1850**

**Prereq:** 6 credits from HIST at the 1/2000 level; or permission of the Department

This course traces the decline of the aristocracy, the triumph of the middle classes, and the making of the working class in Britain during the early stages of capitalism and industrialization. The course also examines gender relations and analyses the notion of 'separate spheres'. It pays particular attention to the controversies among historians surrounding the nature of social transformation in Britain. (Format: Lecture 3 Hours)(Exclusion: HIST 3400; any version of HIST 3251 previously offered with a different title)

**HIST 3301 (3.00 CR)****EUROPE IN THE TWENTIETH CENTURY, 1900-1945**

**Prereq:** 6 credits from HIST at the 2000 level; HIST 2041 recommended; or permission of the Department

This course examines the major political, social, cultural and economic developments in Europe from the beginning of the century to the end of World War II. (Format: Lecture 3 Hours)(Exclusion: HIST 3390)

**HIST 3311 (3.00 CR)****EUROPE SINCE 1945**

**Prereq:** 6 credits from HIST at the 2000 level; HIST 2041 recommended; or permission of the Department

This course examines the major political, social, cultural and economic developments in Europe from the post-war era of reconstruction to the foundation of the European Union. (Format: Lecture 3 Hours)(Exclusion: HIST 3390)

**HIST 3321 (3.00 CR)****WAR AND SOCIETY IN EUROPE FROM THE LATE MIDDLE AGES TO NAPOLEON (1400-1815)**

**Prereq:** 6 credits from HIST at the 1/2000 level; 3 credits from HIST 1611, 1661, 2011, 2031, 3161 recommended; or permission of the Department

This course examines the interrelationship between war and society from the late mediaeval period until the Congress of Vienna, which ended the Napoleonic Wars. Topics include: the gunpowder revolution, the rise of states, power and the pursuit of wealth, revolution and war, the social effects of warfare, transformations in strategy and tactics, and the changing justifications for war. (Format: Lecture 3 Hours)(Exclusion: HIST 3600, 3380)

**HIST 3331 (3.00 CR)**  
**WAR AND SOCIETY IN EUROPE FROM NAPOLEON TO NUREMBERG (1815-1945)**

**Prereq:** 6 credits from HIST at the 1/2000 level; 3 credits from HIST 1661, 2041, 3301, 3321 recommended; or permission of the Department

This course examines the interrelationship between war and society from the Congress of Vienna, which ended the Napoleonic Wars, to the conclusion of the Second World War. Topics include: technology and war; the military implications of industrial competition; nationalism, state-building, and warfare; the First World War; and the Second World War and its immediate aftermath. In addition to the social effects of war, the course also examines peacemaking and changing ethical views towards warfare. (Format: Lecture 3 Hours)(Exclusion: HIST 3600, 3380)

**HIST 3361 (3.00 CR)**  
**CULTURE AND SOCIETY IN MODERN EUROPE**

**Prereq:** 6 credits from HIST at the 2000 level; 3 credits from HIST 2031, 2041 recommended; or permission of the Department

This course examines major themes and issues in Continental European social and cultural history from the seventeenth century to the present. Topics include: identity formation; class and gender; community and nation; family, work and leisure; myth and memory; popular and high culture; and the emergence of mass consumer society. (Format: Lecture 3 Hours)(Exclusion: HIST 3360)

**HIST 3381 (3.00 CR)**  
**FASCISM IN EUROPE 1890-1945**

**Prereq:** 6 credits from HIST at the 2000 level; HIST 2041 recommended; or permission of the Department

This course undertakes a comparative analysis of the origins, theory and nature of fascism in France, Italy and Germany from about 1890 to 1945.(Format: Lecture 3 Hours)

**HIST 3401 (3.00 CR)**  
**THE ATLANTIC REGION**

**Prereq:** 6 credits from HIST at the 1/2000 level; or permission of the Department

This course surveys the political, socio-economic, cultural, and environmental history of Canada's Atlantic region from the eighteenth century to the 1990s. (Format: Lecture 3 Hours)(Exclusion: HIST 3420, 3451, any version of HIST 3401 previously offered with a different title)

**HIST 3411 (3.00 CR)**  
**NEW FRANCE**

**Prereq:** 6 credits from HIST at the 1/2000 level; or permission of the Department

This course examines the expansion of the French empire in North America with particular emphasis on Indigenous peoples prior to and following European contact and the socio-economic and cultural life of the French colonies. (Format: Lecture/Tutorial 3 Hours)(Exclusion: Any version of HIST 3411 previously offered with a different title)

**HIST 3431 (3.00 CR)**  
**QUEBEC FROM CONFEDERATION TO THE SOVEREIGNTY MOVEMENT**

**Prereq:** 6 credits from HIST at the 1/2000 level; or permission of the Department

This course examines the political, religious, economic, and cultural development of Quebec since Confederation with particular emphasis on the growth of nationalism and the emergence of the sovereignty movement. (Format: Lecture/Tutorial 3 Hours)(Exclusion: Any version of HIST 3431 previously offered with a different title)

**HIST 3441 (3.00 CR)**  
**MODERN CANADA**

**Prereq:** 6 credits from HIST at the 1/2000 level; or permission of the Department

This course traces the development of political movements and ideas that are an integral part of the texture of modern Canada and that have been shaping influences on the direction and pace of social, intellectual, and economic life. (Format: Lecture/Tutorial 3 Hours)

**HIST 3461 (3.00 CR)**  
**CANADA AND ASIA**

**Prereq:** 6 credits from HIST at the 2000 level; or permission of the Department

This course examines Canada's relationship with the peoples and nations of Asia through four inter-related themes: immigration, missionary activity, diplomacy and foreign policy, and trade. It pays particular attention to East and South Asia and how interactions with these regions have affected contemporary Canadian society. (Format: Lecture/Tutorial 3 Hours)

**HIST 3471 (3.00 CR)**  
**CANADIAN WOMEN IN HISTORICAL PERSPECTIVE**

**Prereq:** 6 credits from HIST at the 1/2000 level; or permission of the Department

This course draws upon both historical and theoretical perspectives to examine the diverse experiences, conditions and roles of women in Canada from Pre-confederation to the late twentieth century. (Format: Lecture 3 Hours)

**HIST 3481 (3.00 CR)**  
**RELIGIOUS AND SPIRITUAL TRADITIONS IN CANADA**

**Prereq:** 6 credits from HIST, RELG at the 1/2000 level; or permission of the Department

This course surveys the history of early religious and spiritual traditions in Canada from before the early global era to the mid twentieth century. It focuses on Indigenous, Christian, and Jewish traditions, but others are also included. Topics include influential individuals, writings, and institutions in relation to the state and public life, as well as newer themes from cultural and social history. [Note: This course is cross-listed as RELG 3481 and may therefore count as 3 credits in either discipline](Format: Lecture 3 Hours) (Exclusion: Any version of HIST/RELG 3481 previously offered with a different title)

**HIST 3491 (3.00 CR)****IMMIGRATION IN CANADIAN HISTORY**

**Prereq:** 6 credits from HIST at the 1/2000 level; or permission of the Department

This course explores the history of immigration to the lands which became Canada, from the seventeenth to the twentieth centuries, and in the context of world migration history. In addition to gender and class, key themes include: the impact of immigration on host societies, the changing roles of institutions and the state with regard to immigrants and refugees, and the construction of identities based on ethnicity or nationality. (Format: Lecture 3 Hours)

**HIST 3511 (3.00 CR)****COLONIAL AMERICA IN AN ATLANTIC WORLD**

**Prereq:** 6 credits from HIST at the 1/2000 level; or permission of the Department

This course examines the history of North America and the Caribbean from the fifteenth century to the American Revolution within the wider context of the Atlantic world. (Format: Lecture 3 Hours) (Exclusion: HIST 3550; any version of HIST 3511 previously offered with a different title)

**HIST 3531 (3.00 CR)****AMERICAN WOMEN'S HISTORY**

**Prereq:** 6 credits from HIST at the 1/2000 level; or permission of the Department

This course explores theoretical approaches to women's history through an examination of the role and experience of women in the United States from the Revolution to the present. (Format: Lecture 3 Hours)

**HIST 3541 (3.00 CR)****CHALLENGES TO AMERICAN MODERNITY: THE UNITED STATES DURING THE 1920S AND 1930S**

**Prereq:** 6 credits from HIST at the 1/2000 level; or permission of the Department

This course examines selected crises and challenges that shaped American public life during the 1920s and 1930s: the 'first generation gap'; the Second Ku Klux Klan and other ultra-conservative reactions to modernity; aspects of popular culture, especially music; the Dust Bowl; the Great Depression and responses it evoked; and the development of industrial unionism. (Format: Lecture 3 Hours)(Exclusion: HIST 3520; HIST 3521; HIST 3991A-US during the 20s and 30s if taken in Winter 2011 or Winter 2012)

**HIST 3611 (3.00 CR)****CHRISTIANITY IN ROMAN EMPIRE**

**Prereq:** 3 credits from RELG 2801, 2821, 3601; 3 credits from RELG 1600 series; or third or fourth year History Major; or permission of the Department

This course examines the crucial, defining crises of the ancient Christian communities in the social, political, and cultural context of Late Antiquity (roughly, 2nd to 6th centuries CE/AD). It analyzes early Christianity as a social movement, as a religious movement with a developing belief system, and as an historical phenomenon embedded within historical events and processes. [Note 1: This course is cross-listed as RELG 3611 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours)

**HIST 3621 (3.00 CR)****THE CONSTRUCTION OF CHRISTENDOM: THE HISTORY OF CHRISTIANITY DURING THE MEDIAEVAL ERA**

**Prereq:** 3 credits from HIST 2001, HIST 2011, RELG 2801, RELG 2821, RELG 2831, RELG 2841; 3 credits from HIST, RELG at the 2000 level; or permission of the Department

This course traces the history of Christianity, emphasizing the Roman communion, from the fifth to the mid-fifteenth century. It investigates the development of the institutional church; the evolution of forms of devotional observance, manifested in art and architecture, literature, and the liturgy; and the varied expressions of criticism and dissent aimed at the doctrinal teaching and conduct of clergy. [Note 1: This course is cross-listed as RELG 3621 and may therefore count as three credits in either discipline.](Format: Lecture 3 Hours)(Exclusion: HIST/RELG 3620; any version of HIST 3621 previously offered with a different title)

**HIST 3631 (3.00 CR)****THE FRACTURING OF CHRISTENDOM: THE REFORMATION ERA**

**Prereq:** 3 credits from HIST 2001, HIST 2011, HIST 2031, RELG 2801, RELG 2821, RELG 2831, RELG 2841; 3 credits from HIST, RELG at the 2000 level; or permission of the Department

This course treats the history of Christianity during the fifteenth and sixteenth centuries, an era when the unity of mediaeval western Christendom was driven by series of reformations; Protestant, Radical, and Catholic. It investigates the ecclesiastical, intellectual, political, and social circumstances and consequences of dramatic religious change. [Note 1: This course is cross-listed as RELG 3631 and may therefore count as three credits in either discipline.](Format: Lecture 3 Hours) (Exclusion: HIST 3131)

**HIST 3721 (3.00 CR)****THE CONFUCIAN WORLD**

**Prereq:** 6 credits from HIST at the 2000 level; 3 credits from HIST 2731, 2741 recommended; or permission of the Department

This course examines the various schools of Confucianism that have dominated the philosophy, social relations, and political economy of China, Japan, Korea, and Vietnam for thousands of years. It focuses on some of the core texts of the Confucian canon and their reinterpretation during the twelfth-century emergence of Neo-Confucianism. It also pays particular attention to the Confucian legacy in the modern, industrialized states of East Asia. (Format: Lecture 3 Hours)

**HIST 3761 (3.00 CR)****JAPAN AND THE MAKING OF MODERN ASIA**

**Prereq:** 6 credits from HIST at the 2000 level; 3 credits from HIST 2731, 2741 recommended; or permission of the Department

This course examines the modern history of Asia, centering on Japan and its interactions with China, Korea, and the Euro-American powers. It considers particularly how the peoples of this region initiated and responded to radical social, political, and economic change. (Format: Lecture 3 Hours)(Exclusion: HIST/POLS 3731, HIST 3751; any version of HIST 3761 previously offered with a different title)



**HIST 3801 (3.00 CR)****BIRTH TO DEATH: LIFE COURSE AND FAMILY HISTORY**

**Prereq:** 6 credits from HIST at the 1/2000 level; or permission of the Department

This course explores the cultural and demographic history of individuals, families, and stages of the life course, from infancy to the experience of death and dying. Life course and family history thus overlaps with gender history, the history of medicine, and legal history. Topics include: sexuality and sexual orientation, education, and old age. It focuses on North America from the seventeenth to the twentieth centuries, but also draws comparisons to Western European patterns, and is situated in the context of world population history. (Format: Lecture 3 Hours)

**HIST 3811 (3.00 CR)****CANADIAN WORKING-CLASS AND LABOUR HISTORY**

**Prereq:** 6 credits from HIST at the 1/2000 level; or permission of the Department

This course focuses on everyday working-class resistance manifested through labour organizations and political movements. (Format: Lecture/Tutorial 3 Hours)

**HIST 3821 (3.00 CR)****THE INDIAN ACT: LAW, POLICY, AND CANADIAN FIRST PEOPLES**

**Prereq:** 6 credits from CANA 1001 and 1011 and 3 credits from CANA at the 2000 level; or 6 credits from HIST at the 2000 level; CANA/HIST 2801 recommended; or permission of the Program Director.

This course focuses on the origins, evolution, and contemporaneity of Canada's Indian Act and policies. It also focusses on First Nations resistance and survivance and efforts to overturn these colonial acts and policies through time. [Note 1: This course is cross-listed CANA 3821 and may therefore count as 3 credits in either discipline] (Format: Lecture 3 hours)

**HIST 3831 (3.00 CR)****INDIGENOUS CANADA: HIST. PERSPECTIVES CANADIAN FIRST PEOPLES**

**Prereq:** 6 credits from CANA 1001 and 1011 and 3 credits from

This course focuses on the history of Indigenous people in Canada with particular attention to the debates within Indigenous history surrounding events, peoples, memory, colonialism and de-colonialism, resurgence, survivance, and re-storying. [Note 1: This course is cross-listed as CANA 3831 and may therefore count as 3 credits in either discipline] (Format: Lecture 3 hours)

**HIST 3841 (3.00 CR)****BORDERLANDS**

**Prereq:** 6 credits from CANA or HIST at the 1000 or 2000 level; or permission of the Program Director

This course explores Indigenous peoples' resistance, resurgence, and survivance along and amidst frontiers, borders, and borderlands within North America. [Note 1: This course is cross-listed as CANA 3841 and may therefore count as 3 credits in either discipline.] (Format: Seminar 3 hours)

**HIST 3861 (3.00 CR)****HISTORY, MUSEUMS, AND MATERIAL CULTURE**

**Prereq:** 6 credits from HIST at the 1/2000 level; or permission of the Department

This course examines the value of material culture, objects from the past, as sources useful in historical enquiry and representation. It examines how historians use things as an integral form of evidence to open up new ways of historical thinking. It gives special consideration to the historical development of museums, with their collections of artefacts and 'stuff', that function as sites for the practice and representation of public history and heritage preservation. (Format: Lecture/Tutorial 3 Hours)

**HIST 3901 (3.00 CR)****HISTORICAL RESEARCH AND WRITING METHODS**

**Prereq:** 6 credits from HIST at the 1/2000 level; or permission of the Department

This course focuses on the essential methods of historical research and writing. (Format: Lectures/Tutorial 3 Hours)

**HIST 3991 (3.00 CR)****SPECIAL TOPIC IN HISTORY**

**Prereq:** 6 credits from HIST at the 1/2000 level; or permission of the Department

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for HIST 3991 more than once, provided the subject matter differs.] (Format: Variable)

**HIST 4001 (3.00 CR)****HISTORY THROUGH FILM**

**Prereq:** Third-year standing; 12 credits from HIST at the 2/3000 level; or permission of the Department

This course provides thematic study of topics in modern history through the medium of film, both feature and documentary. It reads the films critically both as art forms and as historical documents. It places particular emphasis on what films tell us about the particular historical context in which they were created. [Note 1: This course may count as 3 credits in Art History.] (Format: Seminar 3 Hours)

**HIST 4101 (3.00 CR)****ADVANCED TOPICS IN EARLY MEDIAEVAL HISTORY**

**Prereq:** Third-year standing; HIST 3141; 3 credits from HIST 3121, HIST 3151, HIST 3161, HIST 3611, HIST 3621, HIST 3631, RELG 3611, RELG 3621, RELG 3631; or permission of the Department

This course examines European history, ca. 300 to ca. 1100. (Format: Seminar 3 Hours)(Exclusion: HIST 4110)

**HIST 4111 (3.00 CR)****ADVANCED TOPICS IN LATE MEDIAEVAL HISTORY**

**Prereq:** Third-year standing; HIST 3151; 3 credits from HIST 3121, HIST 3141, HIST 3161, HIST 3611, HIST 3621, HIST 3631, RELG 3611, RELG 3621, RELG 3631; or permission of the Department

This course examines European history, ca. 1100 to ca. 1500. (Format: Seminar 3 Hours)(Exclusion: HIST 4110)

**HIST 4221 (3.00 CR)****ADVANCED TOPICS IN RENAISSANCE HISTORY**

**Prereq:** Third-year standing; HIST 3121; 3 credits from HIST 3141, HIST 3151, HIST 3161, HIST 3611, HIST 3621, HIST 3631, RELG 3611, RELG 3621, RELG 3631; or permission of the Department

This course is a seminar in Renaissance history. (Format: Seminar 3 Hours)(Exclusion: HIST 4220)

**HIST 4231 (3.00 CR)****ADVANCED TOPICS IN REFORMATION HISTORY**

**Prereq:** Third-year standing; 3 credits from HIST 3121, HIST 3141, HIST 3151, HIST 3161, HIST 3611, HIST 3621, HIST 3631, RELG 3611, RELG 3621, RELG 3631; or permission of the Department

This course is a seminar in Reformation history. (Format: Seminar 3 Hours)(Exclusion: HIST 4220)

**HIST 4241 (3.00 CR)****BRITAIN, 1603-1815**

**Prereq:** Third-year standing; 3 credits from HIST 3211, 3221, 3231, 3241, 3251; or permission of the Department

This course examines revolution and stability in the seventeenth century, the expansion of trade and finance in the eighteenth century, and the frequent presence of war throughout the early Modern period. Major themes include religious controversy, social change, state building, economic expansion, and the conduct of war and diplomacy. (Format: Seminar 3 Hours)

**HIST 4251 (3.00 CR)****BRITISH IMPERIAL HISTORY, 1600- PRESENT**

**Prereq:** Third-year standing; 3 credits from HIST 3211, 3221, 3231, 3241, 3251; or permission of the Department

This course treats certain key themes in British imperial history: British identity, the nature and exercise of British power, the economics of empire, the ideology of imperialism, the development of colonial nationalism, and the experience of war. It traces these themes through the various geographical components of empire: India, Africa, the Americas, and the antipodes, to invite fruitful comparison of different imperial experiences over time and place. These prompt questions whether the British Empire was the product of purposeful development or of makeshift improvisation. (Format: Seminar 3 Hours)

**HIST 4261 (3.00 CR)****NINETEENTH-CENTURY BRITISH HISTORY**

**Prereq:** Third-year standing; 3 credits from HIST 3211, 3221, 3231, 3241, 3251; or permission of the Department

This course explores the following topics, among others: liberalism, economic growth, political reform, Victorianism, class and gender relations, religious and cultural issues, and Britain in the world. (Format: Seminar 3 Hours)

**HIST 4271 (3.00 CR)****TWENTIETH-CENTURY BRITISH HISTORY**

**Prereq:** Third-year standing; 6 credits from HIST 3211, HIST 3221, HIST 3231, HIST 3241, HIST 3251, POLS 3200; or permission of the Department

This course examines Britain's domestic history as well as its imperial and international relations from 1900 to the present. (Format: Seminar 3 Hours)(Exclusion: HIST 4600; HIST 4250)

**HIST 4300 (6.00 CR)****THE BIRTH OF THE MODERN AGE**

**Prereq:** Third-year standing; 6 credits from HIST 3301, 3311, 3361, 3371, 3381; or permission of the Department

This senior seminar explores some of the profound social, cultural, political and economic changes that transformed European life during the late nineteenth and early twentieth centuries. Topics vary from year to year. (Format: Seminar 3 Hours)

**HIST 4321 (3.00 CR)****TOPICS IN ENVIRONMENTAL HISTORY**

**Prereq:** Third-year standing; 6 credits from HIST at the 3000 level; or permission of the Department

This seminar examines selected topics of environmental history with a focus on Europe from the fifteenth century to the present. (Format: Seminar 3 Hours)

**HIST 4411 (3.00 CR)****CANADIAN URBAN HISTORY**

**Prereq:** Third-year standing; 6 credits from HIST at the 3000 level; or permission of the Department

This seminar considers selected topics of urban history with a focus on Canadian cities from the nineteenth century to the present. (Format: Seminar 3 Hours)

**HIST 4420 (6.00 CR)****THE ATLANTIC PROVINCES**

**Prereq:** Third-year standing; 6 credits from HIST 2411, 2421, 3401, 3411, 3431, 3441, 3481, 3491, 3511, 3801, 3811; or permission of the Department

This seminar considers key topics or themes in the history of Atlantic Canada from the pre-Contact period to the late twentieth century. Students also explore the concepts, methods, and sources used in this history, and how these and changing philosophies or theories of history have influenced the way scholars and others have researched and written about the past. (Format: Seminar 3 Hours)(Exclusion: HIST 4100)

**HIST 4441 (3.00 CR)****MODERN CANADIAN HISTORY**

**Prereq:** Third-year standing; 6 credits from HIST 2411, HIST 2421, HIST 3441, HIST 3491, HIST 3801, HIST 3811, CANA 3301, CANA 3400; or permission of the Department

This course investigates selected topics in Modern Canadian History from the nineteenth century to the present. (Format: Seminar 3 Hours)(Exclusion: HIST 4440)

**HIST 4461 (3.00 CR)****ADVANCED SEMINAR ON MODERN CANADIAN WOMEN'S HISTORY**

**Prereq:** Third-year standing; 6 credits from HIST, CANA at the 3000 level; or permission of the Department

This course focuses on Canadian women's activism in social and political movements - from suffrage in the late nineteenth century until the second-wave of feminist protest in the 1960's. (Format: Seminar 3 Hours)(Exclusion: HIST 4951 Canadian Women's History)

**HIST 4510 (6.00 CR)****THE AMERICAN WEST**

**Prereq:** Third-year standing; 6 credits from HIST 2511, 2521, 3501, 3511, 3521, 3531, 3561; or permission of the Department

This course examines the history of the American West during the nineteenth and twentieth centuries. It juxtaposes the real West to the mythic West and emphasizes the importance of each in American society and culture. (Format: Seminar 3 Hours)

**HIST 4571 (3.00 CR)****HISTORY OF THE MODERN AMERICAN WOMEN'S MOVEMENT**

**Prereq:** Third-year standing; HIST 3531; or permission of the Department

This course focuses on the history of the modern American women's movement, beginning with a brief examination of the history of feminism in the pre-World War II United States and continuing through to an examination of responses and backlashes to the women's movement. Emphasis is given to the revolutionary character of that movement and the experience of American women as influenced by the movement. (Format: Seminar 3 Hours)

**HIST 4701 (3.00 CR)****ASIA IN WAR AND REVOLUTION**

**Prereq:** Third-year standing; 9 credits from HIST at the 3000 level; or permission of the Department

This seminar examines the impact of war and revolution on the cultures, economies, and systems of governance in modern Asia. Particular attention is also paid to the relationship between war and remembrance and the ways in which memories of war have been constructed and mobilized for political and ideological purposes. (Format: Seminar 3 Hours)

**HIST 4901 (3.00 CR)****ARCHIVES AND RESEARCH METHODS RESEARCH METHODS**

**Prereq:** Third-year standing; 3 credits in History at the 3000 level; or permission of the Department

This course focuses on advanced historical methods, issues in archival studies, and the development of a research project using local archives.(Format: Seminar 3 Hours) (Exclusion: Any version of HIST 4901 previously offered with a different title)

**HIST 4911 (3.00 CR)****WRITING HISTORY**

**Prereq:** Third-year standing; 9 credits from HIST at the 3000 level; or permission of the Department

This seminar provides students the opportunity to critically engage the major works of history throughout the ages from a comparative and interdisciplinary perspective. In addition to examining the ideas and theories that have animated the writing of history, students will also evaluate the importance and relevance of history to our contemporary world, its relationship to the past, and its utility as a guide to present and future action. Content varies depending on the instructor. (Format: Seminar 3 Hours)

**HIST 4950 (6.00 CR)****INDEPENDENT STUDY IN HISTORY**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for HIST 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**HIST 4951 (3.00 CR)****INDEPENDENT STUDY IN HISTORY**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for HIST 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**HIST 4990 (6.00 CR)****HONOURS THESIS**

Independent research and study under direction of a member of the department; for students in History Honours program. [Note 1: Consent of supervising staff member prior to registration and permission of the Program Advisor is required.] (Format: Independent Study/Thesis)

**HIST 4991 (3.00 CR)****SPECIAL TOPIC IN HISTORY**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for HIST 4991 more than once, provided the subject matter differs.] (Format: Variable)

## INDIGENOUS STUDIES

### INDIGENOUS STUDIES COURSE

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

#### INDG 1001 (3.00 CR)

##### INTRODUCTION TO INDIGENOUS STUDIES

This course is an introduction to the diversity of Indigenous peoples in Canada and the Maritimes. Topics include: Indigenous studies as a discipline, world views, societies, cultures, politics, colonization, decolonization, survivance and re-storying. It emphasizes Indigenous authors and voices and introduces principles and practices of cross-cultural communication and relationships. A key objective of the course is for students to explore, through increased skills and knowledge, their motivations, positioning, and goals in pursuing Indigenous Studies. (Format: Lecture/Experiential Learning 3 Hours) (Distribution: Social World-a) (Exclusion: UNST 1991 - Introduction to Indigenous Studies)

#### INDG 1991 (3.00 CR)

##### SPECIAL TOPIC IN INDIGENOUS STUDIES

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the appropriate Dean. Note 3: Students may register for INDG 1991 more than once, provided the subject matter differs.] (Format: Variable)

#### INDG 2991 (3.00 CR)

##### SPECIAL TOPIC IN INDIGENOUS STUDIES

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the appropriate Dean. Note 3: Students may register for INDG 2991 more than once, provided the subject matter differs.] (Format: Variable)

#### INDG 3991 (3.00 CR)

##### SPECIAL TOPIC IN INDIGENOUS STUDIES

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the appropriate Dean. Note 3: Students may register for INDG 3991 more than once, provided the subject matter differs.] (Format: Variable)

#### INDG 4950 (6.00 CR)

##### INDEPENDENT STUDY IN INDIGENOUS STUDIES

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor is required. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for INDG 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

#### INDG 4951 (3.00 CR)

##### INDEPENDENT STUDY IN INDIGENOUS STUDIES

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program is required. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for INDG 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

#### INDG 4991 (3.00 CR)

##### SPECIAL TOPIC IN INDIGENOUS STUDIES

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the appropriate Dean. Note 3: Students may register for INDG 4991 more than once, provided the subject matter differs.] (Format: Variable)

## INTERNATIONAL ECONOMICS AND BUSINESS

### Interdisciplinary B.A. Program

#### MINOR in International Economics/Business is 24 credits earned as follows:

- 12 from ECON 1001 and 1011, 3 credits in Computer Science or Mathematics (not including MATH 1011), COMM 2201
- 12 from Economics 3501, 3901, 3921, 4531, 4551, Commerce 2211, 3211, 3251, chosen in consultation with the Program Advisor

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

## INTERNATIONAL RELATIONS

See Politics and International Relations

## JAPANESE STUDIES

See Modern Languages and Literatures

## LATIN

See Classical Studies

## LINGUISTICS

See Modern Languages and Literatures

## MATHEMATICS

Mathematics is a discipline which has been said to be the Queen of the Sciences, and is the foundation of most modern quantitative and qualitative studies. The permanence and universality of mathematics throughout the ages is a consequence of its very nature. Mathematics is cumulative, developing from the earliest use of numbers by prehistoric civilizations to the highly deductive nature of geometry as developed by the Greeks, from the practical applications of calculus developed in the seventeenth century to the modern use of number theory in computer cryptography. Mathematics has many faces, from practical uses of its statistical tools to theoretical studies of abstract relationships. Our goal is to introduce students to all facets of the discipline, and to give them an appreciation of the historical, theoretical and applied nature of the discipline, as well as a full understanding of the beauty of the subject.

The Department offers a broad variety of courses and programs in Mathematics. Beginning courses may introduce students to the applications to which Calculus may be applied or the practical uses of statistics; more advanced courses deal with topics ranging from geometry to game theory. All courses in the Mathematics curriculum offer a blend of theory and practical applications. Many of the courses offered include a substantial computational component, and students are encouraged to use the mathematical software tools available. Courses are designed to address the needs of a wide variety of users, from the casual to the professional. Some students may enrol in a course to familiarize themselves with university level mathematics, while others will take a series of courses related directly to their chosen study area. Those choosing to pursue a minor or major in mathematics will be exposed to more advanced courses which blend Mathematical theory and practice.

Mount Allison has been very successful in placing many of its students in graduate programs in Mathematics, while many others have found employment after graduation in one of many fields for which mathematical understanding is an asset. Teaching, actuarial work, law and medicine are all areas requiring the ability to think and reason logically and for which a mathematical background can prove beneficial.

### Disciplinary B.A. and B.Sc. Programs

#### **B.A. or B.Sc. MINOR in Mathematics is 24 credits earned as follows:**

- 6 from MATH 1111, 1121
- 12 from MATH 2111, 2121, 2211, 2221, 2311, 2321.
- 6 from Mathematics at the 3/4000 level.

#### **B.A. MAJOR in Mathematics is 60 credits earned as follows:**

- 15 from MATH 1111, 1121, 2111, 2211, 2221
- 3 from MATH 2121, 2311
- 3 from MATH 3111, 3141, 3161
- 3 from MATH 3011, 3211, 3221, 3231
- 3 from MATH 3151, 3311, 3411
- 15 from Mathematics at the 3/4000 level
- 6 from COMP 1631, 1731

12 credits from complementary disciplines chosen in consultation with the Program Advisor

**B.A. HONOURS in Mathematics is 72 credits earned as follows:**

18 from MATH 1111, 1121, 2111, 2121, 2211, 2221  
 6 from COMP 1631, 1731  
 6 from MATH 3111, 3211  
 3 from MATH 3311, 3411  
 6 from MATH 3011, 4111, 4121, 4221, 4311, 4951, 4991  
 15 from MATH at the 3/4000 level  
 6 from MATH 4901 and 4911, or 6 from MATH at the 3/4000 level  
 6 from Mathematics or Computer Science at the 3/4000 levels  
 6 from Computer Science, Economics, or Mathematics at the 2000 level or above, or from COMM 3411, LING 2001, 3001, PHIL 2611, PHIL 3631

**B.A. or B.Sc. HONOURS in Computer Science and Mathematics is 75 or 87 credits earned as follows:**

18 from COMP 1631, 1731, 2211\*, 2611, 2631, 2931  
 15 from MATH 1111, 1121, 2111, 2121, 2221  
 9 from MATH 3111, 3211, 3311  
 3 from MATH 3011, 3221, 3231, 3251, 4221  
 3 from Mathematics at the 3/4000 levels  
 3 from COMP 3361, 3971  
 15 from COMP 3411, 3611, 3721, 3911, 4721  
 9 from Computer Science or Mathematics at the 3/4000 level  
 9 from CHEM 1001, 1021; PHYS 1051, 1551 (only for B.Sc.)  
 3 from BIOL 1001, BIOL 1501, BIOC 1001, GENS 1401, PSYC 1001 or PSYC 1011 (only for B. Sc.)

**B.Sc. MAJOR in Mathematics is 60 credits earned as follows:**

18 from MATH 1111, 1121, 2111, 2121, 2211, 2221  
 3 from MATH 3111, 3141, 3161  
 3 from MATH 3011, 3211, 3221, 3231  
 3 from MATH 3151, 3311, 3411  
 15 from Mathematics at the 3/4000 level  
 6 from COMP 1631, 1731  
 9 from CHEM 1001, 1021; PHYS 1051, 1551  
 3 from BIOL 1001, BIOL 1501, BIOC 1001, GENS 1401, PSYC 1001 or PSYC 1011

**B.Sc. HONOURS in Mathematics is 78 credits earned as follows:**

18 from MATH 1111, 1121, 2111, 2121, 2211, 2221  
 6 from COMP 1631, 1731  
 6 from MATH 3111, 3211  
 3 from MATH 3311, 3411  
 6 from MATH 3011, 4111, 4121, 4221, 4311, 4951, 4991  
 15 from MATH at the 3/4000 level  
 6 from MATH 4901 and 4911, or 6 from MATH at the 3/4000 level

6 from Mathematics or Computer Science at the 3/4000 level  
 9 from CHEM 1001, 1021; PHYS 1051, 1551  
 3 from BIOL 1001, BIOL 1501, BIOC 1001, GENS 1401, PSYC 1001 or PSYC 1011

**Interdisciplinary B.A. Program**

**B.A. HONOURS in Economics and Mathematics is 81 credits earned as follows:**

21 from ECON 1001, 1011, 2001, 2011, 2101, 2111, 2701  
 21 from MATH 1111, 1121, 2111, 2121, 2211, 2221, 2311  
 3 from COMP 1631  
 6 from MATH 3111, 3211  
 12 from ECON 4700, 4801, 4811, 4821  
 6 from ECON at the 3/4000 levels which may include ECON 4990  
 12 from MATH at the 3/4000 level

**Interdisciplinary B.Sc. Program**

**B.Sc. HONOURS in Mathematics and Physics is 90 credits earned as follows:**

3 from BIOL 1001, BIOL 1501, BIOC 1001, GENS 1401, PSYC 1001 or PSYC 1011  
 18 from MATH 1111, 1121, 2111, 2121, 2211, 2221  
 3 from COMP 1631  
 6 from CHEM 1001, 1021  
 12 from PHYS 1051, 1551, 2251, 2801  
 3 from MATH/PHYS 3451  
 9 from MATH 3111, 3211, 3311  
 6 from MATH 3141, 3161  
 6 from MATH 3131, 3221, 3151, 3231, 3411, 3531, 4111, 4121, 4311, PHYS 4101, 4201, 4311, 4831, 4851, 4911; only 3 credits may be selected from the listed Physics courses  
 18 from PHYS 3101, 3201, 3701, 3811, 3821, 4411  
 6 from PHYS 4990

**Note:** Students pursuing Honours in Mathematics and Physics may be allowed to substitute PHYS 1041 for PHYS 1051 with permission of the Department

**PLACEMENT IN MATHEMATICS**

Students wishing to take the introductory calculus course (Mathematics 1111 or Mathematics 1151) are required to write a *Mathematics Assessment Test* to determine their level of mathematical preparation.

**MATHEMATICS COURSES**

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following courses can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees:

MATH 1111, 1151, 1251, 2311

### **MATH 1011 (3.00 CR) FUNCTIONS**

This course focuses on the real number system, inequalities, plane analytic geometry (lines and conics), functions, inverse functions, polynomials, rational functions, trigonometric functions, and exponential and logarithmic functions. It emphasizes fundamental methods of graphing functions, using non-calculus based techniques. [Note 1: This course is primarily intended for non-science students or as a prerequisite for MATH 1111 or 1151 for those students who have not passed the Mathematics Placement Test. Science students who have passed the Mathematics Placement Test require the permission of the Department of Mathematics and Computer Science to enrol in this course. Credit will not be given for this course if credit has already been granted for MATH 1111 or 1151.] (Format: Lecture 3 Hours, Laboratory 1.5 Hours) (Exclusion: Any version of MATH 1011 previously offered with a different title)

### **MATH 1111 (3.00 CR) CALCULUS I**

This course introduces differential calculus. Topics include derivatives of algebraic, trigonometric, and exponential functions and applications such as curve sketching, related rates, and optimization problems. [Note 1: This course has a Challenge for Credit option; see Calendar Section 3.11] (Format: Lecture 3 Hours, Laboratory 1.5 Hours)(Distribution: Natural Science-a) (Exclusion: MATH 1151; any version of MATH 1111 previously offered with a different title)

### **MATH 1121 (3.00 CR) CALCULUS II**

**Prereq:** MATH 1111; or permission of the Department

This course continues the introduction to calculus begun in MATH 1111. Topics include techniques of integration; applications of the integral such as finding volumes and solving elementary differential equations; and sequences and series. (Format: Lecture 3 Hours, Laboratory 1.5 Hours) (Exclusion: Any version of MATH 1121 previously offered with a different title)

### **MATH 1151 (3.00 CR) APPLIED CALCULUS**

This course introduces differential and integral calculus with an emphasis on applications. Topics include modeling with functions, interpretation of the derivative and integral, and some computational methods. [Note 1: The course is designed for students in life sciences and Commerce who do not intend to take MATH 1121.] (Format: Lecture 3 Hours, Laboratory 1.5 Hours) (Distribution: Natural Science-a) (Exclusion: MATH 1111)

### **MATH 1251 (3.00 CR) FINITE MATHEMATICS**

This course introduces common applications of finite mathematics. Topics include Markov chains, linear programming and game theory. [Note 1: This course is restricted to non-mathematics majors and is intended in particular for students in behavioural sciences, commerce, and social sciences. Mathematics majors require the instructor's permission to enrol.] (Format: Lecture 3 Hours) (Distribution: Natural Science-a)

### **MATH 1991 (3.00 CR) SPECIAL TOPIC IN MATHEMATICS**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for MATH 1991 more than once, provided the subject matter differs.] (Format: Variable)

### **MATH 2111 (3.00 CR) MULTIVARIABLE CALCULUS**

**Prereq:** MATH 1121; or permission of the Department

This course introduces the calculus of functions of several variables, including conic sections, quadric surfaces, polar co-ordinates in the plane, cylindrical and spherical co-ordinates in three space, continuity, partial derivatives, tangent planes, chain rule, maximum and minimum values, Lagrange multipliers, and double and triple integrals.(Format: Lecture 3 Hours)

### **MATH 2121 (3.00 CR) DIFFERENTIAL EQUATIONS I**

**Prereq:** MATH 1121; or permission of the Department

This course introduces first and second order differential equations. Topics include techniques for solving simple differential equations and the qualitative analysis of linear and non-linear equations. Applications include growth and decay, heating and cooling, and mixing and chemical reactions. (Format: Lecture 3 Hours) (Exclusion: Any version of MATH 2121 previously offered with a different title)

### **MATH 2211 (3.00 CR) DISCRETE STRUCTURES**

**Prereq:** 3 credits from MATH 1111, 1151; or permission of the Department

This course introduces the terminology and concepts of discrete mathematics. Topics may include: logical arguments, proofs and algorithm verification, sets, relations, functions and cardinality of sets, induction and recursion, enumeration, and algorithms and complexity. [Note 1: This course is cross-listed with COMP 2211 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours)

### **MATH 2221 (3.00 CR) LINEAR ALGEBRA**

**Prereq:** 3 credits from MATH 1111, 1151; or permission of the Department

This course introduces linear algebra and its applications. Topics may include: linear equations, matrices, determinants, vector spaces, linear transformations, inner products, eigenvalues, and eigenvectors. Whenever possible, the course provides geometric interpretation in two- and three-dimensional space. (Format: Lecture 3 Hours)



**MATH 2311 (3.00 CR)**  
**STATISTICS I**

This course introduces some of the concepts and techniques of probability and statistics. Topics include descriptive statistics, elementary probability, probability distributions, statistical estimation, hypothesis testing, and the use of a statistical software package in analyzing data. Examples come from a wide variety of disciplines. (Format: Lecture 3 Hours) (Distribution: Natural Science-a)

**MATH 2321 (3.00 CR)**  
**STATISTICS II**

**Prereq:** 3 credits from MATH 2311, 3311; or permission of the Department

This is a second course in the concepts and techniques of probability and statistics. The course covers a selection of topics from analysis of variance, linear and nonlinear regression, correlation estimation and prediction, independence, Wilcoxon and goodness-of-fit tests and includes data analysis using statistical software. Examples come from a wide variety of sources and disciplines. (Format: Lecture 3 Hours, Laboratory 1 Hour)

**MATH 2991 (3.00 CR)**  
**SPECIAL TOPIC IN MATHEMATICS**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for MATH 2991 more than once, provided the subject matter differs.] (Format: Variable)

**MATH 3011 (3.00 CR)**  
**SET THEORY AND MATHEMATICAL LOGIC**

**Prereq:** MATH 2211; or permission of the Department

This course provides a mathematical introduction to the basic ideas of set theory and logic. Topics covered may include: axiom of choice, cardinal and ordinal numbers, Boolean algebras and their applications, completeness, decidability, philosophies of mathematics. (Format: Lecture 3 Hours)

**MATH 3031 (3.00 CR)**  
**HISTORY OF MATHEMATICS**

**Prereq:** 6 credits from MATH 2111, 2121, 2211, 2221; or permission of the Department

This course surveys the history of mathematics. Topics include: the achievements of early civilizations, the developments in Europe leading to the calculus and its consequences, the growth of rigor in the eighteenth and nineteenth centuries, and the axiomatic method in the twentieth century. (Format: Lecture 3 Hours)

**MATH 3111 (3.00 CR)**  
**REAL ANALYSIS I**

**Prereq:** MATH 1121; MATH 2211; or permission of the Department

This course provides a systematic and rigorous study of the real numbers and functions of a real variable, emphasizing limits and continuity. (Format: Lecture 3 Hours)

**MATH 3131 (3.00 CR)**  
**DIFFERENTIAL EQUATIONS II**

**Prereq:** MATH 2121; MATH 2111; MATH 2221; or permission of the Department

This course focuses on ordinary and partial differential equations. Topics for ordinary differential equations include existence and uniqueness of solutions, systems of differential equations, power series solutions, Laplace and Fourier transforms, and Fourier series. Topics for partial differential equations include separation of variables, generalized Fourier series, Sturm-Liouville theory, Legendre polynomials, Bessel functions, Green's functions, and the calculus of variations. (Format: Lecture 3 Hours) (Exclusion: Any version of MATH 3131 previously offered with a different title)

**MATH 3141 (3.00 CR)**  
**VECTOR CALCULUS**

**Prereq:** MATH 2111; 3 credits from MATH 2221, MATH/PHYS 3451; or permission of the Department

This course covers the calculus of vector-valued functions and curves, vector fields, line and surface integrals, vector differential operators, and the various forms of Stokes' Theorem. It may also include the differential geometry of curves and differential forms. (Format: Lecture 3 Hours)

**MATH 3151 (3.00 CR)**  
**AN INTRODUCTION TO MATHEMATICAL MODELLING**

**Prereq:** Third-year standing; 3 credits from Math 1111, 1151; or permission of the Department

This course introduces the nature of theoretical mathematical modelling illustrated by examples drawn from the physical sciences, population dynamics (mathematical ecology), traffic flow, sociological problems (for example voting, kinship and cultural stability) and other areas depending on the interests of the class. (Format: Lecture 3 Hours)

**MATH 3161 (3.00 CR)**  
**COMPLEX VARIABLES WITH APPLICATIONS**

**Prereq:** MATH 2111; or permission of the Department

This course covers analytic functions, Cauchy-Riemann equations, conformal mapping, complex integrals, Cauchy's integral theorem, Taylor and Laurent Series, residues, evaluation of real integrals, and inverse transforms. (Format: Lecture 3 Hours; Exclusion MATH 4131)

**MATH 3211 (3.00 CR)**  
**MODERN ALGEBRA I**

**Prereq:** MATH 2211; MATH 2221; or permission of the Department

This course introduces the theory of groups and rings. (Format: Lecture 3 Hours)

**MATH 3221 (3.00 CR)**  
**ADVANCED LINEAR ALGEBRA**

**Prereq:** MATH 2221; MATH 2211 recommended; or permission of the Department

This course covers selected linear algebraic topics such as: change of basis and similarity of matrices; multilinear forms and determinants; canonical forms, Primary Decomposition Theorem, Jordan form; semisimple and normal operators; spectral theory; quadratic forms; and applications to areas such as geography, electrical networks, linear programming, differential equations, and the geometry of conic sections. (Format: Lecture 3 Hour)

**MATH 3231 (3.00 CR)****NUMBER THEORY**

**Prereq:** MATH 2211; or permission of the Department

This course introduces the theory of numbers. Topics may include: the Euclidean algorithm, the Fundamental Theorem of Arithmetic, congruences, diophantine equations, Fermat and Wilson Theorems, quadratic residues, continued fractions, and the Prime Number Theorem. (Format: Lecture 3 Hours)

**MATH 3251 (3.00 CR)****GRAPH THEORY**

**Prereq:** MATH 2211; or permission of the Department

This course introduces terminology, techniques, and applications of graph theory and examines parameters for a variety of classes of graphs. Topics include trees, planarity, colouring, matchings, and network flow problems. (Format: Lecture 3 Hours)(Exclusion: Any version of MATH 3251 previously offered with a different title.)

**MATH 3301 (3.00 CR)****INTRODUCTION TO GAME THEORY**

**Prereq:** 6 credits from ECON 1001, 1011; or 3 credits from MATH 1111, 1151; or permission of the Department

This course introduces the basic tools and methods of Game Theory. Game Theory is a mathematically oriented approach to understanding the strategic interaction of self-interested agents. Emphasis is on non-cooperative games. Topics include backwards induction, iterative deletion of dominated strategies, Nash equilibrium, repeated games, some equilibrium refinements, evolutionary game theory, and Bayesian Nash equilibria. [Note 1: This course is cross-listed as ECON 3301 and therefore may count as 3 credits in either discipline. Note 2: Counts as a Commerce elective for students taking a Bachelor of Commerce or a Major or Minor in Commerce] (Format: Lecture 3 Hours, Laboratory 1 Hour)

**MATH 3311 (3.00 CR)****PROBABILITY AND STATISTICS I**

**Prereq:** MATH 2111; or permission of the Department

This course focuses on the mathematical theory of probability. It includes topics such as: sample space, events, axioms, conditional probability, Bayes' Theorem, random variables, combinatorial probability, moment generating functions, transformations of random variables, univariate and joint distributions with reference to the binomial, hypergeometric, normal, Gamma, Poisson, and others; convergence of sequences of variables; and the Central Limit Theorem. (Format: Lecture 3 Hours)

**MATH 3411 (3.00 CR)****NUMERICAL ANALYSIS**

**Prereq:** MATH 1121; 3 credits from COMP; or permission of the Department

This course introduces numerical methods for solving a variety of problems in mathematics, the natural sciences, and engineering and the implementation of numerical methods on a computer. Topics include numerical stability, polynomial approximation and interpolation, integration and solution of differential equations, solution of linear and nonlinear systems of equations, and matrix factorization. [Note 1: This course is cross-listed as COMP 3411 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours)

**MATH 3451 (3.00 CR)****METHODS OF MATHEMATICAL PHYSICS**

**Prereq:** MATH 2111; 3 credits from MATH 2121, PHYS 2251; or permission of the Department

This course provides students with a selection of mathematical skills needed in more advanced physics courses. It introduces frequently utilized mathematical methods in theoretical physics in close connection with physics applications. Topics include vector and tensor analysis, use of special functions, operators and eigenvalue problems, Fourier analysis, and complex variable techniques. [Note 1: This course is cross listed as PHYS 3451 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours, Laboratory 3 Hours)

**MATH 3531 (3.00 CR)****SIMULATION AND MODELLING**

**Prereq:** MATH 1111; 3 credits from MATH 2311, MATH 3311, PSYC 2001, PSYC 2011; 3 credits from COMP; or permission of the Department

This course introduces the simulation technique for studying mathematical models. Topics may include: systems theory and system models, continuous system simulation, discrete system simulation, Monte Carlo methods, random number generators, and simulation languages. It emphasizes computer implementation of the methods studied. [Note 1: This course is cross listed as COMP 3531 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours)

**MATH 3991 (3.00 CR)****SPECIAL TOPIC IN MATHEMATICS**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for MATH 3991 more than once, provided the subject matter differs.] (Format: Variable)

**MATH 4111 (3.00 CR)****TOPOLOGY**

**Prereq:** MATH 2111; MATH 3111; or permission of the Department

This course introduces the essential ideas of topology. Topics include: metric and topological spaces, convergence, continuous functions, connected spaces, compact spaces, and homotopy. (Format: Lecture 3 hours)

**MATH 4121 (3.00 CR)****REAL ANALYSIS II**

**Prereq:** MATH 2111; MATH 3111; or permission of the Department

This course continues the study of analysis begun in MATH 3111 and includes a rigorous study of the Riemann and Lebesgue integrals based on formal definitions and proofs. (Format: Lecture 3 Hours; Exclusion: MATH 3121)

**MATH 4221 (3.00 CR)**  
**MODERN ALGEBRA II**

**Prereq:** MATH 3211; or permission of the Department

This course explores the classical theory of rings and fields and their applications. (Format: Lecture 3 Hours)

**MATH 4311 (3.00 CR)**  
**PROBABILITY AND STATISTICS II**

**Prereq:** MATH 3311; or permission of the Department

This course focuses on mathematical statistics. It includes topics such as: estimation, unbiasedness, efficiency, Cramer-Rao lower bound, consistency, sufficiency, maximum likelihood estimators, hypothesis testing, power of tests, likelihood ratio, regression analysis and analysis of variance. (Format: Lecture 3 Hours) (Exclusion: MATH 3321)

**MATH 4631 (3.00 CR)**  
**THEORY OF COMPUTATION**

**Prereq:** COMP/MATH 2211; COMP 1731; or permission of the Department

This course is an introduction to theoretical aspects of Computer Science such as formal language and automata theory and complexity theory. [Note 1: This course is cross listed as COMP 4631 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours)

**MATH 4651 (3.00 CR)**  
**CRYPTOGRAPHY**

**Prereq:** COMP 1731; COMP/MATH 2211; MATH 2221; or permission of the Department

This course is an introduction to cryptographic algorithms and to the cryptanalysis of these algorithms, with an emphasis on the fundamental principles of information security. Topics include: classical cryptosystems, modern block and stream ciphers, public-key ciphers, digital signatures, hash functions, key distribution and agreement. [Note 1: This course is cross listed as COMP 4651 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours)

**MATH 4901 (3.00 CR)**  
**HONOURS THESIS I**

**Prereq:** Registered in Honors Math Program; fourth-year standing.

This course comprises independent research and study under the direction of one or more supervisors approved by the Department. This first course is typically focused on background research. The student prepares a report on their progress by the end of the term. (Note: consent of supervisor(s) required). (Format: Independent Study/Thesis).

**MATH 4911 (3.00 CR)**  
**HONOURS THESIS II**

**Prereq:** MATH 4901, with a grade of at least B required.

This course comprises independent research and study under the direction of one or more supervisors approved by the Department. This second course is typically focused on developing, writing, and presenting the thesis itself. (Note: consent of supervisor(s) required). (Format: Independent Study/Thesis).

**MATH 4951 (3.00 CR)**  
**INDEPENDENT STUDY IN MATHEMATICS**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for MATH 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**MATH 4991 (3.00 CR)**  
**SPECIAL TOPIC IN MATHEMATICS**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for MATH 4991 more than once, provided the subject matter differs.] (Format: Variable)

## MODERN LANGUAGES AND LITERATURES

Courses offered by the Department of Modern Languages and Literatures include French, German, Spanish, Japanese and Linguistics. Linguistics, and most culture courses are offered in English. Students can also benefit from our study-abroad programs in France, Germany, Spain and Japan. The courses offered in each of these disciplines, as well as the Majors, Minors and Honours programs available, are outlined under each discipline heading. An interdisciplinary Major and Honours in Modern Languages, Literatures and Cultures are also offered, as outlined in this section.

Students who plan to specialize in one or more languages by electing a Minor, Major, or Honours program should declare their specialization to the Registrar's Office by the end of their first year of University studies. They should also visit the program advisor in the Department of Modern Languages and Literatures before registering for second year, since most programs require the advisor's approval of optional courses.

### PLACEMENT

Beginning language courses (GERM 1001, SPAN 1101, and JAPA 1001) are designed for students who either have never studied the language previously or have had minimal experience with the language. All students with high school, post-secondary, or non-academic exposure to these languages must consult with the program advisor for that language about placement and may be asked to write a diagnostic placement test if the level of competence in the language cannot be readily established. The results of the consultation and testing will be used to place the students in the proper course level.

Placement of students in their first French course will be decided on the basis of a French Language Skills Assessment given by the Department. All students who have not studied French at Mount Allison previously must complete this assessment before registering for a course in French. The Skills Assessment is available on-line through the Department of Modern Languages and Literatures web site. Students completing Majors, Minors, or Honours programs in French should be aware that any exemptions from 1000-2000 level courses obtained through the placement process must be replaced on their programs by credits in French at the 3000-4000 levels.

For all language courses offered in the Department, if within the first seven class hours it becomes apparent that the initial placement was inappropriate, the student or the instructor may request a meeting with the Department Head to discuss the appropriateness of the student moving to a higher or lower level.

**Note:** A student cannot receive credit for a language course that is a prerequisite for a course for which they have already received credit by placement or by previous course work.

### FRENCH STUDIES

Mount Allison offers an extensive French Studies program, within the Department of Modern Languages and Literatures, with a variety of language, literature and culture courses that increase the students' awareness of the French, French-Canadian, and Francophone identities while developing their ability to function in the second language. To this end, all language and literature courses are taught in French unless otherwise noted.

The courses at the first and second year levels provide students with the opportunity to establish a sound foundation in written and spoken

French. The study of grammar at these levels is reinforced by practice in the language laboratory or tutorial groups. Several courses at the 3000 and 4000 levels are specifically intended to refine students' command of written and spoken French, while other courses deal with the various areas of French, French-Canadian, and Francophone literatures and cultures as well as the theories of literary criticism. A series of prizes are awarded each year to students who distinguish themselves in French Studies.

The Department supports other activities that enrich the course of study:

- Le Cercle français
- Guest speakers
- Tintamarre, a bilingual theatrical troupe
- Study Abroad Program at the Université de Strasbourg, France
- Spring field course in France
- Certificate of Bilingualism (see Section H under Degrees and Certificates)

### Minimum standard in French for certain courses

While there is no course prerequisite for FREN 2801 (Cinéma du monde francophone), there is a minimum standard of competency in French required for admission to the course. Anyone wishing to register in FREN 2801 must complete a French Skills Assessment (see previous section on Placement) and demonstrate a knowledge of French equivalent to completion of FREN 1711 (placement in FREN 2401).

### Disciplinary B.A. Programs

**Important note** for advanced students: anyone who has completed French 2401 or who has been placed in FREN 2501 is encouraged to enrol in FREN 2501 and 2601 concurrently.

### MINOR in French is 24 credits earned as follows:

- |         |   |
|---------|---|
| 0 to 6  | FREN 1701, 1711, if required by placement |
| 9       | FREN 2401, 2501, 2601                     |
| 3       | FREN 3101                                 |
| 6 to 12 | from French courses at the 3/4000 level   |

**Note:** FREN 2801 may only be included in the requirements for a minor if FREN 1701 and FREN 1711 are not required by placement. If an exemption is granted from any of the language courses, replacement credits must be obtained in other French courses at the 3/4000 level.

### MAJOR in French is 60 credits earned as follows:

- |    |   |
|----|---|
| 6  | from FREN 1801*, 1811*, 1821*, 2801   |
| 9  | from FREN 2401, 2501, 2601  |
| 12 | from FREN 3101, 3111, 3131, 4001  |
| 15 | credits in FREN literature/culture form the 3000 level in at least 4 of the 5 following areas. Students are, however, encouraged to take 1 from each: |
|    | a) 17th and 18th centuries: FREN 3301, 3401, 3411   |
|    | b) 19th century: FREN 3501, 3511  |
|    | c) 20th century: FREN 3601, 3611, 3621  |
|    | d) French Canada: FREN 3761, 3771   |
|    | e) Theoretical and Cultural Studies: FREN 3801, 3811*, 3871   |

18 from complementary courses in other languages in Modern Languages, Literatures or Cultures; Arts & Letters and/or Humanities; HIST 1661, LING 2001, 3001, 3111 are especially recommended

**Note 1:** Courses taught in English are indicated with an asterisk.

**Note 2:** A maximum of 6 credits of courses taught in English at the 2/3000 level may count toward a Major in French.

**Note 3:** All complementary courses from disciplines outside the Department of Modern Languages and Literatures (with the exception of HIST 1661) must be chosen in consultation with the Program Advisor prior to enrolment in them.

### **HONOURS in French (Thesis Option) is 66 credits earned as follows:**

- 9 from FREN 1801, 1811, 1821, 2801
- 9 FREN 2401, 2501, 2601
- 12 from FREN 3101, 3111, 3131, 4001
- 3 from LING 2001, 3001, 3011
- 27 credits from FREN at the 3/4000 level including:
  - a) at least 6 credits from 17th and 18th centuries: FREN 3301, 3401, 3411
  - b) at least 3 credits from 19th century: FREN 3501, 3511
  - c) at least 3 credits from 20th century: FREN 3601, 3611, 3621
  - d) at least 3 credits from French Canada: FREN 3761, 3771
  - e) at least 3 credits from Theoretical and Cultural Studies: FREN 3801, 3811, 3871
- 6 FREN 4990 (Mémoire)

### **HONOURS in French (Course Option) is 66 credits earned as follows:**

- 9 from FREN 1801, 1811, 1821, 2801
- 9 FREN 2401, 2501, 2601
- 12 from FREN 3101, 3111, 3131, 4001
- 3 from LING 2001, 3001, 3011
- 33 credits from FREN at the 3/4000 level including:
  - a) at least 6 credits from 17th and 18th centuries: FREN 3301, 3401, 3411
  - b) at least 3 credits from 19th century: FREN 3501, 3511
  - c) at least 3 credits from 20th century: FREN 3601, 3611, 3621
  - d) at least 3 credits from French Canada: FREN 3761, 3771
  - e) at least 3 credits from Theoretical and Cultural Studies: FREN 3801, 3811, 3871

**Note:** An interdisciplinary Major and Honours in Modern Languages, Literatures and Cultures (French, German, Spanish and Japanese), are also available.

## **FRENCH COURSES**

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of

the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following courses can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees: FREN 1651, 1801, 1811, 2801, 2841

If a student is placed in a language course at a higher level than the course listed for distribution, the course at the higher level may be counted for distribution.

### **FREN 1001 (3.00 CR) ELEMENTARY FRENCH I**

This course is intended for students with little or no background in French. Its objective is to help students develop some proficiency in each of the four skill areas: listening, speaking, reading, and writing. It takes a traditional approach with an emphasis on elementary grammar, syntax, and systematic vocabulary building. [Note 1: This course is offered in the Spring/Summer term only. It is not available in the day sessions during the Fall and Winter terms.] (Format: Lecture/Workshop 3 Hours)

### **FREN 1011 (3.00 CR) ELEMENTARY FRENCH II**

**Prereq:** FREN 1001

This course is a continuation of FREN 1001 and uses the same methods and approach; it focuses on building more familiarity with the grammar, syntax, and vocabulary of basic French. [Note 1: This course is offered in the Spring/Summer term only. It is not available in the day sessions during the Fall and Winter terms.] (Format: Lecture/Workshop, 3 Hours)

### **FREN 1651 (3.00 CR) PREPARATORY FRENCH/ FRANÇAIS PRÉPARATOIRE**

This French grammar course designed for non-Francophones who did not complete high school French, is an intensive review of basic grammatical structures with a particular emphasis on verb conjugation, pronouns, adjectives and syntax. [Note 1: Placement by the Department is required. A minimum standard of achievement on the French Skills Assessment is required. Note 2: Students completing FREN 1651 may continue into FREN 1701.] (Format: Lecture 3 Hours, Laboratory 1 Hour)

### **FREN 1701 (3.00 CR) INTERMEDIATE FRENCH I FRANÇAIS INTERMÉDIAIRE I**

**Prereq:** FREN 1651; or placement by the Department

This course is an intensive approach to the development of communication skills through the integration of grammar study, writing practice, and oral exercises. Analysis and discussion of readings reinforce the study of written and oral language. (Format: Lecture 3 Hours, Laboratory 1 Hour)

### **FREN 1711 (3.00 CR) INTERMEDIATE FRENCH II / FRANÇAIS INTERMÉDIAIRE II**

**Prereq:** FREN 1701; or placement by the Department

The continuation of French 1701, this course pursues the development of communication skills through the integration of grammar study, writing practice, and oral exercises. Analysis and discussion of readings reinforce the study of written and oral language. (Format: Lecture 3 Hours, Laboratory 1 Hour)

**FREN 1801 (3.00 CR)**  
**PARIS, CITY OF LIGHT**

This course introduces elements that define the essence of Paris through a series of literary and cultural snapshots. Using multimedia presentations of the Parisian cultural landscape and a broadly interdisciplinary perspective, lectures explore the development of a vibrant and unique urban centre that has always been a magnet for creative minds and cultural fervour. It uses drawings, engravings, paintings, maps, texts, songs, and film to investigate what is perceived as the singularity, timelessness, and seductive appeal of Paris. (Format: Lecture 3 Hours) [Note 1: Language of instruction is English.]

**FREN 1811 (3.00 CR)**  
**CULTURAL ASPECTS OF FRENCH CANADA**

This course considers some of the issues and debates that help us to understand modern and contemporary French-speaking Canada, its history, society, and culture, its specificity and its diversity, its changing nature and its place in a pan-Canadian cultural landscape with particular emphasis on Quebec and Acadie. [Note 1: Language of instruction is English.] (Format: Lecture 3 Hours)(Exclusion: any version of FREN 1811 previously offered with a different title.)

**FREN 1821 (3.00 CR)**  
**FRANCE:THE CULTURAL EXPERIENCE**

This study-abroad course offers the opportunity to encounter, through an experiential and interdisciplinary lens, a diverse range of 'lieux de mémoire' [sites of memory] in French and Francophone culture such as castles, churches, gardens, museums, and commemorative monuments. Using Pierre Nora's approach to cultural memory, the course positions these landmarks as sites that crystallize the essence of French culture, reflect artistic movements and schools of thought, and exemplify the French nation's ability to respond to change and reinvent itself at critical moments in history. [Note 1: Language of instruction is English. Note 2: This course is only available to students during the Spring/Summer term. Enrollment is limited and students should be aware of the additional costs of travel and participation fees.] (Format: Field Course)

**FREN 1991 (3.00 CR)**  
**SPECIAL TOPIC IN FRENCH**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for FREN 1991 more than once, provided the subject matter differs.] (Format: Variable)

**FREN 2401 (3.00 CR)**  
**READING AND WRITING FRENCH I / LANGUE ET LECTURES I**

**Prereq:** FREN 1711; or placement by the Department

This course requires that students already have a good command of the fundamental aspects of French in both its spoken and written forms. Its objectives are: to improve expression through the study and practice of appropriate sentence structures, such as sequence of past tenses, pronouns as complements, relative clauses, subordinate constructions requiring the subjunctive; to improve reading and analytical skills by examining and discussing texts that raise important and controversial issues; and to practice oral expression. (Format: Lecture 3 Hours, Laboratory 1 Hour)

**FREN 2501 (3.00 CR)**  
**READING AND WRITING FRENCH II / LANGUE ET LECTURES II**

**Prereq:** FREN 2401; or placement by the Department

This course is the continuation of FREN 2401. Its objectives are to further develop reading strategies, to build vocabulary, to continue to improve the formulation of complex sentences by using a variety of co-ordinating/subordinating conjunctions. It also provides practice in writing longer compositions with emphasis on compositional techniques such as outline, structure, and transitions. [Note 1: Students planning to minor or major in French are encouraged to take FREN 2501 and FREN 2601 concurrently. When FREN 2501 and 2601 are taken concurrently, a C- in both courses is required for entry into 3000-level French literature and culture courses.] (Format: Lecture 3 Hours)

**FREN 2601 (3.00 CR)**  
**FUNDAMENTALS OF LITERARY ANALYSIS / INITIATION À L'ANALYSE LITTÉRAIRE**

**Prereq or Coreq:** FREN 2501; or permission of the Department

This course continues the studies begun in French 2401 and FREN 2501 by further developing skills in reading and interpretation of literary and cultural texts. It introduces textual analysis through selected critical approaches. [Note 1: Students planning to minor or major in French are encouraged to take FREN 2501 and FREN 2601 concurrently. When FREN 2501 and 2601 are taken concurrently, a C- in both courses is required for entry into 3000-level French literature and culture courses.] (Format: Lecture 3 Hours)

**FREN 2801 (3.00 CR)**  
**FILM FROM THE FRENCH AND FRANCOPHONE WORLD / CINÉMA DU MONDE FRANCOPHONE**

**Prereq:** FREN 1711; or French Skills Assessment equivalent to 2000 level French language course; or permission of the Department

This course studies films and film makers of the French-speaking world, ranging from screen adaptations of literary works to an exploration of cultural issues, and introduces film theory and aesthetics. This course is taught in French. Written work may be submitted in English. [Note 1: This course may count as 3 credits in Art History.] (Format: Lecture 3 Hours)

**FREN 2991 (3.00 CR)**  
**SPECIAL TOPIC IN FRENCH**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for FREN 2991 more than once, provided the subject matter differs.] (Format: Variable)

**FREN 3101 (3.00 CR)**  
**ADVANCED WRITTEN FRENCH I / LE FRANÇAIS ÉCRIT AVANCÉ I**

**Prereq:** FREN 2501; or permission of the Department

This course provides a practice in both grammatical structures and idiomatic usage. It includes an intensive review of French grammar with particular attention to features of special difficulty for anglophones. (Format: Lecture 3 Hours)

**FREN 3111 (3.00 CR)**  
**ADVANCED WRITTEN FRENCH II / LE FRANÇAIS ÉCRIT AVANCÉ II**

**Prereq:** FREN 3101; or permission of the Department

This course provides writing practice and composition with particular attention to the idiomatic use of French in a variety of contexts including informal prose, expository writing, technical language, and literary language. (Format: Lecture 3 Hours)

**FREN 3131 (3.00 CR)**  
**CONTEMPORARY SPOKEN FRENCH / FRANÇAIS PARLÉ CONTEMPORAIN**

**Prereq:** FREN 2501; or permission of the Department

This course is designed for students at the advanced level who aim to speak French with enhanced clarity, spontaneity and colour and offers a systematic study of phonetic and prosodic features of French. By exposing students to a variety of authentic audio-visual documents from Francophone parts of the world, the course targets the acquisition of vocabulary, the improvement of aural comprehension and the development of communicative strategies through a variety of situations such as conversations, debates, interviews, and presentations. [Note 1: This course is open to students studying French as a second language.] (Format: Lecture/Workshop 3 Hours) (Exclusion: any version of FREN 3131 previously offered with a different title)

**FREN 3301 (3.00 CR)**  
**THE AGE OF VERSAILLES: OPULENCE, SEDUCTION, AND POWER / L'ÉPOQUE DE VERSAILLES: OPULENCE, S'ÉDUCTION ET POUVOIR**

**Prereq:** FREN 2501; FREN 2601; or permission of the Department

Through the lens of cultural studies, this course focuses on the Age of Versailles, when Europe spoke French and France was a cultural trendsetter throughout the world. Concentrating on key texts, objects, images, and concepts, it introduces a range of movements such as classicism, absolutism, cartesianism; social practices such as salon conversation, and collaborative writing; and preoccupations such as relations with the New World, and the education of women; which were shaped by court culture and Louis XIV's desire for absolute power, the search for love in all its forms, and a valorisation of order, reason, novelty, and sophistication. (Format: Lecture 3 Hours) (Exclusion: any version of FREN 3301 previously offered with a different title)

**FREN 3401 (3.00 CR)**  
**THE AGE OF ENLIGHTENMENT: TOLERANCE, RESPONSIBILITY, AND EDUCATION / LE LE SIÈCLE DES LUMIÈRES: TOLÉRANCE, RESPONSABILITÉ ET ÉDUCATION**

**Prereq:** FREN 2501; FREN 2601; or permission of the Department

This course studies canonical and non-canonical texts of the Enlightenment period in eighteenth century France. It examines the interests and preoccupations of a society trying to redefine itself in the background of significant cultural, intellectual, and social developments. (Format: Lecture 3 Hours) (Exclusion: any version of FREN 3401 previously offered with a different title)

**FREN 3411 (3.00 CR)**  
**THE FRENCH REVOLUTION, BEFORE AND AFTER / LA RÉVOLUTION FRANÇAISE, AVANT ET APRÈS**

**Prereq:** FREN 2501; FREN 2601; or permission of the Department

This course explores the ways in which the French Revolution, as the pivotal event of European history in the eighteenth century, transformed culture and society, through a study of key texts that are essentially of a literary or journalistic nature. (Format: Lecture 3 Hours)

**FREN 3501 (3.00 CR)**  
**THE AGE OF ROMANTICISM / L'ÉPOQUE DU ROMANTISME**

**Prereq:** FREN 2501; FREN 2601; or permission of the Department

This course studies French literary and cultural texts representative of the first part of the nineteenth century. It examines the widespread influence of the Romantic movement by exploring its expression in a variety of textual forms selected from poetry, theatre, tales, historical essays, letters, speeches and novels. (Format: Lecture 3 Hours)

**FREN 3511 (3.00 CR)**  
**THE AGE OF NATURALISM / L'ÉPOQUE DU NATURALISME**

**Prereq:** FREN 2501; FREN 2601; or permission of the Department

Study of French literary and cultural texts representative of the last part of the nineteenth century. The influence of movements like Realism, Naturalism, Symbolism and Decadentism will be examined through a variety of textual forms selected from poetry, short stories, literary essays, letters, novels and theatre. (Format: Lecture 3 Hours) (Exclusion: FREN 3521)

**FREN 3601 (3.00 CR)****MODERNISM AND SURREALISM / MODERNISME ET SURREALISME**

**Prereq:** FREN 2501; FREN 2601; or permission of the Department  
This course studies literary movements and cultural forms in France through representative works from the beginning of the twentieth century until World War II. (Format: Lecture 3 Hours)

**FREN 3611 (3.00 CR)****EXISTENTIALISM AND AFTER / EXISTENTIALISME ET APRÈS**

**Prereq:** FREN 2501; FREN 2601; or permission of the Department  
This course studies representative works from the post-war period. It examines literary movements and cultural forms in France, including existentialist realism, the 'nouveau roman', and post-modernism. (Format: Lecture 3 Hours)

**FREN 3621 (3.00 CR)****NEW WRITING, NEW VOICES / NOUVELLES ÉCRITURES, VOIX NOUVELLES**

**Prereq:** FREN 2501; FREN 2601; or permission of the Department  
This course studies contemporary literary and cultural production in French (outside Canada) with a focus on new and emerging writers. (Format: Lecture 3 Hours)

**FREN 3761 (3.00 CR)****HERE AND AWAY: HOME, TRAVEL, EXILE IN FRENCH CANADA / ICI ET AILLEURS: DOMICILE, VOYAGE, ET EXILE AU CANADA FRANÇAIS**

**Prereq:** FREN 2501; FREN 2601; or permission of the Department  
This course studies themes of home, travel, immigration, and exile in the literatures of French-speaking Canada, from a variety of literary genres and periods. It examines definitions of place and identity, and the tensions between notions of here and away, and between home and exile. (Format: Lecture 3 Hours)

**FREN 3771 (3.00 CR)****CREATIVITY IN FRENCH CANADIAN LITERATURE / LA CREATION DANS LA LITTÉRATURE DU CANADA FRANÇAIS**

**Prereq:** FREN 2501; FREN 2601; or permission of the Department  
This course studies notions of creativity in literature and the arts. Through the study of fiction, poetry, and essays from French-speaking Canada, it examines how authors and artists approach their creative practices in the Canadian cultural context. (Format: Lecture 3 Hours) (Exclusion: any version of FREN 3771 previously offered with a different title.)

**FREN 3801 (3.00 CR)****FRENCH LITERARY CRITICISM / CRITIQUE LITTÉRAIRE FRANÇAISE**

**Prereq:** FREN 2501; FREN 2601; or permission of the Department  
This course introduces the principal methods of modern and contemporary French literary criticism and includes representative approaches from among structuralism, semiotics, psychoanalysis, speech-act theory, feminism, and deconstruction. (Format: Lecture 3 Hours)

**FREN 3811 (3.00 CR)****WORD AND IMAGE / TEXTE ET IMAGE**

**Prereq:** second-year standing; or permission of the Department  
This course explores the intersection of verbal texts and visual arts in Francophone literature and culture from the Middle Ages to the twenty-first century. It adopts an interdisciplinary approach to examine how, different yet inseparable, words and images have always interacted with each other in a variety of ways and forms such as verbal portraiture, literary references to pictorial works, engravings and photographs used as illustrations or book covers, and the use of words in paintings. [Language of instruction is English.] (Format: Lecture 3 Hours)

**FREN 3871 (3.00 CR)****FRENCH DETECTIVE FICTION / LE POLAR EN FRANÇAIS**

**Prereq:** FREN 2501; FREN 2601; or permission of the Department  
This course examines the nature of crime novels and varied social and literary issues. It explores detective fiction in the French and Francophone tradition, from authors such as Georges Simenon, Fred Vargas, and Chrystine Brouillet. (Format: Lecture 3 Hours)

**FREN 3991 (3.00 CR)****SPECIAL TOPIC IN FRENCH**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for FREN 3991 more than once, provided the subject matter differs.] (Format: Variable)

**FREN 4001 (3.00 CR)****STYLISTICS WORKSHOP / ATELIER DE STYLISTIQUE**

**Prereq:** FREN 3111; or permission of the Department  
This course introduces the defining features and peculiarities of French style by focusing on the formal and stylistic features that characterize a selection of literary genres such as the fable, the legend, the sonnet, and the fairy tale. It pays special attention to the rigorous application of stylistic principles, the improvement of specialized vocabulary, the correct usage of idiomatic expressions in context, and the lexical and syntactic constructions borrowed from English or solely used in a regional context. Creative writing is an integral part of this course. (Format: Lecture 3 Hours) (Exclusion: any version of FREN 4001 previously offered with a different title)

**FREN 4950 (6.00 CR)****INDEPENDENT STUDY IN FRENCH**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for FREN 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)



### **FREN 4951 (3.00 CR) INDEPENDENT STUDY IN FRENCH**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for FREN 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

### **FREN 4990 (6.00 CR) MÉMOIRE**

(Honours Essay) The subject and program of research will be established at the end of the student's third year, and submitted for approval to the Department. The essay must show evidence of scholarly investigation and will be written in French. [Note 1: Permission of the Department is required.] (Format: Independent Study/Essay)

### **FREN 4991 (3.00 CR) SPECIAL TOPIC IN FRENCH**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for FREN 4991 more than once, provided the subject matter differs.] (Format: Variable)

## **GERMAN STUDIES**

The German language is spoken by approximately 120 million people in Germany, Austria, Switzerland, Luxembourg and Liechtenstein, and by more than one million Canadians. German is one of the official languages of the European Union and is the second most widely used foreign language in Europe, including Eastern Europe.

German language courses are designed to impart a good working knowledge of German. Students will also gain insight into the culture and mode of life of the German-speaking countries. In addition, as experience shows, students of foreign languages generally show significant improvement in their primary language skills.

German literature is rich and varied. The program places particular emphasis on representative authors and movements in order to provide students access to the literary tradition as a whole. The literature courses also aim to provide a strong complement to the available language courses.

### **Language of Instruction**

All courses in the German Studies curriculum are taught in German unless indicated otherwise by a note.

## **Disciplinary B.A. Programs**

### **MINOR in German is 24 credits earned as follows:**

- 15 from GERM 1001, 1011, 2001, 2011, 3001
- 3 to 6 from German 3/4000 level literature courses
- 3 to 6 from GERM 2601, 2701, 2811 and German 3/4000 level literature courses, chosen in consultation with the Program Advisor

**Note:** An interdisciplinary Major and Honours in Modern Languages, Literatures and Cultures (French, German, Spanish and Japanese), are also available.

## **GERMAN COURSES**

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following courses can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees:

GERM 1001, 2701, 2811

If a student is placed in a language course at a higher level than the course listed for distribution, the course at the higher level may be counted for distribution.

### **GERM 1001 (3.00 CR) ELEMENTARY GERMAN I**

This is an intensive course designed for students with no previous knowledge of German. It focuses on the acquisition of basic proficiency in comprehension, speaking, reading, and writing the German language. (Format: Lecture 3 Hours, Laboratory 1 Hour) (Distribution: Arts-b) (Exclusion: GERM 1000)

### **GERM 1011 (3.00 CR) ELEMENTARY GERMAN II**

**Prereq:** GERM 1001; or placement by the Department

The continuation of German 1001, this course pursues the acquisition of basic proficiency in comprehension, speaking, reading, and writing the German language. (Format: Lecture 3 Hours, Laboratory 1 Hour) (Exclusion: GERM 1000)

### **GERM 1991 (3.00 CR) SPECIAL TOPIC IN GERMAN**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for GERM 1991 more than once, provided the subject matter differs.] (Format: Variable)

**GERM 2001 (3.00 CR)**  
**INTERMEDIATE GERMAN I**

**Prereq:** GERM 1011; or placement by the Department

This course gives a thorough review of German grammar and syntax, and expands active vocabulary to about 2000 words. Along with composition and conversation it introduces literary analysis. (Format: Lecture 3 Hours, Laboratory 1 Hour) (Exclusion: GERM 2000)

**GERM 2011 (3.00 CR)**  
**INTERMEDIATE GERMAN II**

**Prereq:** GERM 2001; or placement by the Department

The continuation of German 2001, this course pursues a review of grammar and syntax, the expansion of vocabulary, along with composition and conversation exercises and an introduction to literary analysis. (Format: Lecture 3 Hours, Laboratory 1 Hour) (Exclusion: GERM 2000)

**GERM 2601 (3.00 CR)**  
**MODERN GERMAN LITERATURE AND CULTURE**

**Prereq:** GERM 1011; or permission of the Department

This course offers a survey of key texts and ideas in modern German fiction from the Enlightenment to the twenty-first century. [Note 1: Language of instruction is English] (Format: Lecture 3 Hours)

**GERM 2701 (3.00 CR)**  
**THE NEW GERMAN FILM: HISTORY, THEORY AND PRATICE.**  
**AREVIEW OF THE DEVELOPMENT OF GERMAN CINEMA AFTER WWII**

After a brief history of German film making from its beginnings, and a discussion of the "grammar of film", this course follows the development of the New German Cinema after 1945, examining selected works against the social, economic, and political background. [Note 1: Language of instruction is English. Note 2: This course may count as 3 credits in Art History.] (Format: Lecture 3 Hours, Film Screening 2.5 Hours) (Distribution: Arts-a)

**GERM 2811 (3.00 CR)**  
**TURN-OF-THE-CENTURY VIENNA**

This course investigates the cultural and social framework of turn-of-the-century Vienna, from approximately 1890 to 1914. It explores the rich intellectual climate that provided the basis for modernity (and decadence) in central Europe by approaching the period in an interdisciplinary fashion and by tracing developments in such diverse fields as literature, music, architecture and psychoanalysis. [Note 1: Language of instruction is English.] (Format: Lecture 3 Hours) (Distribution: Arts-a)

**GERM 2991 (3.00 CR)**  
**SPECIAL TOPIC IN GERMAN**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for GERM 2991 more than once, provided the subject matter differs.] (Format: Variable)

**GERM 3001 (3.00 CR)**  
**ADVANCED GERMAN I**

**Prereq:** GERM 2011; or permission of the Department

This course studies advanced grammar and syntax in German through further expansion of active vocabulary, frequent compositions, oral reports, and an introduction to stylistics. (Format: Lecture 3 Hours, Laboratory 1 Hour) (Exclusion: GERM 3000)

**GERM 3401 (3.00 CR)**  
**TOPICS IN GERMAN LITERATURE I**

**Prereq:** GERM 2011; or permission of the Department

This course explores a selection of literary texts representative of the distinct literary tradition in German-speaking countries. [Note 1: GERM 3401 may be taken for credit more than once if the topic differs.] (Format: Lecture 3 Hours)

**GERM 3501 (3.00 CR)**  
**TOPICS IN GERMAN LITERATURE II**

**Prereq:** GERM 2011; or permission of the Department

This course explores a selection of literary texts representative of the distinct literary tradition in German-speaking countries. [Note 1: GERM 3501 may be taken for credit more than once if the topic differs.] (Format: Lecture 3 Hours)

**GERM 3991 (3.00 CR)**  
**SPECIAL TOPIC IN GERMAN**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for GERM 3991 more than once, provided the subject matter differs.] (Format: Variable)

**GERM 4901 (3.00 CR)**  
**DIRECTED READINGS IN GERMAN**

**Prereq:** GERM 2011; and permission of the Department

This course explores topics in German literature at an advanced level. [Note 1: GERM 4901 may be taken for credit more than once if the topic differs.] (Format: Lecture 3 Hours)

**GERM 4950 (6.00 CR)**  
**INDEPENDENT STUDY IN GERMAN**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for GERM 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

### **GERM 4951 (3.00 CR) INDEPENDENT STUDY IN GERMAN**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study.

[Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for GERM 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

### **GERM 4991 (3.00 CR) SPECIAL TOPIC IN GERMAN**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for GERM 4991 more than once, provided the subject matter differs.] (Format: Variable)

## **HISPANIC STUDIES**

Spanish is one of the most widely spoken languages of the western world and is an official language of the United Nations' Organization. Canada's interest in the Spanish-speaking world is reflected in organizations such as CIDA, CUSO, WUSC and the Canadian Association of Latin American Studies.

Courses in Spanish, offered within the Department of Modern Languages and Literatures, offer the student a two-fold goal: the first, to learn to speak, understand, read and write this important language - particular attention is directed towards the students' achieving oral-aural proficiency, both in class and in the language laboratory; the second, to become familiar with the culture of the Hispanic world through the study of its literary and artistic works. Prizes are offered by the Department for excellence in Hispanic Studies.

The study of Spanish is very important in preparing for a career in the diplomatic corps, various international agencies, teaching, translation, journalism, publishing, commerce, web design, and commercial and cultural relations between Canada and Spanish-speaking countries.

The Department supports other programs and activities that enrich the course program. These include Club Hispánico, and the possibility of study in Spain and in Central or South America.

### **Language of Instruction**

All courses in the Hispanic Studies curriculum are taught in Spanish unless indicated otherwise by a note.

### **Disciplinary B.A. Programs**

**MINOR in Hispanic Studies is 24 credits earned as follows:**

- 18 from SPAN 1101, 1111, 2101, 2111, 3101, 3111
- 6 from Spanish literature at the 3000/4000

**MAJOR in Hispanic Studies is 60 credits earned as follows:**

- 18 from SPAN 1101, 1111, 2101, 2111, 3101, 3111
- 6 from SPAN 1801, 1811
- 18 from Spanish courses at the 3000/4000 level
- 18 from complementary courses in Arts and Letters, Linguistics, Humanities, and Social Sciences, chosen in consultation with the Program Advisor

**Note:** An interdisciplinary Major and Honours in Modern Languages, Literatures and Cultures (French, German, Spanish and Japanese), are also available.

## **SPANISH COURSES**

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following courses can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees: SPAN 1101, 1801, 1811

If a student is placed in a language course at a higher level than the course listed for distribution, the course at the higher level may be counted for distribution.

**SPAN 1101 (3.00 CR)**  
**INTRODUCTORY SPANISH I**

This course teaches elements of Spanish grammar and pronunciation through practice and reading of prescribed texts. This is an intensive course designed for students who have no previous knowledge of Spanish. (Format: Lecture 3 Hours, Laboratory 1 Hour) (Distribution: Arts-b) (Exclusion: SPAN 1100)

**SPAN 1111 (3.00 CR)**  
**INTRODUCTORY SPANISH II**

**Prereq:** SPAN 1101; or permission of the Department

The continuation of SPAN 1101, this course focuses on elements of Spanish grammar and pronunciation through practice and reading of prescribed texts. (Format: Lecture 3 Hours, Laboratory 1 Hour) (Exclusion: SPAN 1100)

**SPAN 1801 (3.00 CR)**  
**SPAIN: A MOSAIC OF CULTURES**

This course introduces the history, culture and art of Spain. It focuses on a number of specific eras which were important to the evolution of Spanish identity: the Muslim world, the conquest of America and the Golden Age, the 1898 War, the Spanish Civil War, and the contemporary era. The course intends to show that historical events which occurred in Spain continue to have international repercussions and affect us as a global society today. It explores the culture of Spain across the centuries using various resources including cinema, literature, documents, popular culture and music. [Note 1: Language of instruction is English.] (Format: Lecture 3 Hours) (Distribution: Arts-a/b) (Exclusion: SPAN 2001; any version of SPAN 1801 previously offered with a different title)

**SPAN 1811 (3.00 CR)**  
**LATIN AMERICA IN ITS OWN VOICES**

This course introduces Latin American cultures through selected literacy texts, films, and other readings, in their historical and social contexts. [Note 1: Language of instruction is English.] (Format: Lecture 3 Hours) (Distribution: Arts-a/b) (Exclusion: SPAN 2011)

**SPAN 1991 (3.00 CR)**  
**SPECIAL TOPIC IN HISPANIC STUDIES**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for SPAN 1991 more than once, provided the subject matter differs.] (Format: Variable)

**SPAN 2101 (3.00 CR)**  
**INTERMEDIATE SPANISH I**

**Prereq:** SPAN 1111; or permission of the Department

This course consolidates and develops language skills acquired in first year Spanish. It offers intermediate Spanish grammar, oral practice, reading of prescribed texts, and an introduction to Hispanic cultures. (Format: Lecture 3 Hours, Laboratory 1 Hour) (Exclusion: SPAN 2100)

**SPAN 2111 (3.00 CR)**  
**INTERMEDIATE SPANISH II**

**Prereq:** SPAN 2101; or permission of the Department

The continuation of SPAN 2101, this course combines intermediate Spanish grammar, translation, oral practice, and reading of prescribed texts with a further introduction to Hispanic literatures and cultures. (Format: Lecture 3 Hours, Laboratory 1 Hour) (Exclusion: SPAN 2100)

**SPAN 2991 (3.00 CR)**  
**SPECIAL TOPIC IN HISPANIC STUDIES**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for SPAN 2991 more than once, provided the subject matter differs.] (Format: Variable)

**SPAN 3060 (6.00 CR)**  
**FIELD STUDY IN LANGUAGE AND CULTURE**

**Prereq:** SPAN 2111; and permission of the Department

This course includes intensive study of the Spanish language as well as instruction in history and culture with an emphasis on sociolinguistic aspects of the country in which it is taught. Students participating in this course will combine their classroom instruction with a significant component of field research in theatre, film, or other related arts. [Note 1: This course is only available to students during the Spring/Summer Term. Students should be aware of the additional costs of travel and participation fees.] (Format: Field Course)

**SPAN 3101 (3.00 CR)**  
**ADVANCED SPANISH I**

**Prereq:** SPAN 2111; or permission of the Department

This course includes intensive conversation, composition and translation. Applied grammar will be included, as will exposure to Hispanic cultures through audiovisual resources (film, print journalism and computer-based sources). Three class periods per week, plus a fourth hour to be arranged after classes have begun. (Format: Lecture 3 Hours, Laboratory 1 Hour)

**SPAN 3111 (3.00 CR)**  
**ADVANCED SPANISH II**

**Prereq:** SPAN 3101; or permission of the Department

A continuation of the Advanced Spanish Language course, primarily through literary texts from Spain and Latin America. This course includes intensive practice in writing, translation, and oral expression, and offers an introduction to Hispanic Literatures that is a prerequisite (or, with permission from the Department, a co-requisite) for all Hispanic Studies courses numbered 3200 and higher. (Format: Lecture 3 Hours)

**SPAN 3241 (3.00 CR)**  
**GENDER IN SPANISH LITERATURE AND CULTURE**

**Prereq:** SPAN 3101; or permission of the Department

This course examines the representation of gender in various time periods, in both canonical and untraditional texts. Topics may include: homosexuality in Hispano-Roman poetry, medieval Hispano-Arab jarchas, and Movida-era literature (post Franco), transvestism and de-masculinization, orientalization, and the representation of women and non-Spanish men, and feminist voices. (Format: Lecture 3 Hours)

**SPAN 3251 (3.00 CR)**  
**FOREIGNNESS IN SPANISH LITERATURE**

**Prereq:** SPAN 3101; or permission of the Department

This course pursues the theme of foreignness in canonical Spanish literature of all time periods. Topics may include African, Asian, Native American impressions of and travel accounts to Spain, and other writings about far away and fantastical places (Format: Lecture 3 Hours)

**SPAN 3261 (3.00 CR)**  
**SEDUCTION IN GOLDEN AGE SPANISH LITERATURE**

**Prereq:** SPAN 3101; or permission of the Department

This course explores the economic, political, and social impacts of romantic relationships in Spanish literature as well as the power dynamics involved in them. It emphasizes the development of Don Juan and his female analogue, Doña Juana, as comedic constructs that criticised mores regulating sex and coupling practices, illustrating the material advantages and disadvantages of seduction. (Format: Lecture 3 Hours)

**SPAN 3301 (3.00 CR)**  
**SHORT PROSE OF LATIN AMERICA**

**Prereq:** SPAN 3101; or permission of the Department

This course surveys the short story and the essay, concentrating primarily on the twentieth century with readings from some of the principal essayists and short story writers. (Format: Lecture 3 Hours)

**SPAN 3311 (3.00 CR)**  
**THE SPANISH-AMERICAN NOVEL**

**Prereq:** SPAN 3101; or permission of the Department

This course studies nineteenth- and twentieth-century novels and the principal themes and forms of the genre. (Format: Lecture 3 Hours)

**SPAN 3321 (3.00 CR)**  
**SPANISH-AMERICAN THEATRE**

**Prereq:** SPAN 3101; or permission of the Department

A survey of the theatre of Latin America, through a study of key examples of its dramatic literature and historical trends. (Format: Lecture 3 Hours)

**SPAN 3331 (3.00 CR)**  
**SPANISH-AMERICAN POETRY**

**Prereq:** SPAN 3101; or permission of the Department

This course surveys the poetry of Latin America, concentrating on the modern (twentieth century) period. (Format: Lecture 3 Hours)

**SPAN 3991 (3.00 CR)**  
**SPECIAL TOPIC IN HISPANIC STUDIES**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for SPAN 3991 more than once, provided the subject matter differs.] (Format: Variable)

**SPAN 4201 (3.00 CR)**  
**VISUAL CULTURE OF THE HISPANIC WORLD**

**Prereq:** SPAN 3101; or permission of the Department

This course examines the organizing media and themes for visual culture throughout the Hispanic world, including Native American, Latin American, and Spanish cinema, fine art, illustration, maps, material culture, and visual language from all historical periods. It involves critical approaches including word-and-image relationships, the Frankfurt school, and semiotics. (Format: Lecture 3 Hours) (Exclusion: SPAN 4991 Visual Culture Of The Hispanic World)

**SPAN 4950 (6.00 CR)**  
**INDEPENDENT STUDY IN HISPANIC STUDIES**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for SPAN 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**SPAN 4951 (3.00 CR)**  
**INDEPENDENT STUDY IN HISPANIC STUDIES**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for SPAN 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**SPAN 4991 (3.00 CR)****SPECIAL TOPIC IN HISPANIC STUDIES**

**Prereq:** 6 credits from SPAN at the 3000 level; or permission of the Department

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for SPAN 4991 more than once, provided the subject matter differs.] (Format: Variable)

**JAPANESE STUDIES****Interdisciplinary B.A. Program**

**MINOR in Japanese Studies is 24 credits earned as follows:**

- 12 from JAPA 1001, 1011, 2001, 2011
- 12 from ECON 3501, 4531, GENV 3321, HIST 2731, 2741, 3721, 3761, 4001, 4701, RELG 2521, 3101, 3311, 3321, 4521, including at least 6 credits from courses at the 3/4000 level

**Note:** Transfer credits earned at Kwansei Gakuin University may be applied in fulfillment of this program with permission of the Program Advisor and an Academic Dean. Exchange students who have earned 60 or more credits in Japanese Studies may apply for approval of a specially approved Interdisciplinary Major in Japanese Studies in accordance with Calendar Regulation 11.2.14.

**Note:** An interdisciplinary Major and Honours in Modern Languages, Literatures and Cultures (French, German, Spanish and Japanese), are also available.

**JAPANESE COURSES**

**Note:** The listing of a course in the calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following course can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees:  
JAPA 1001

If a student is placed in a language course at a higher level than the course listed for distribution, the course at the higher level may be counted for distribution.

**JAPA 1001 (3.00 CR)****INTRODUCTORY JAPANESE I**

This course introduces basic elements of the Japanese language including the essentials of grammar, pronunciation, and two writing systems: hiragana and katakana. It is intended for students with no prior background in Japanese. (Format: Lecture 3 Hours, Laboratory 1 Hour) (Distribution: Arts-a)

**JAPA 1011 (3.00 CR)****INTRODUCTORY JAPANESE II**

**Prereq:** JAPA 1001; or permission of the Department

This course is a continuation of JAPA 1001, emphasizing the essentials of grammar and the acquisition of communication skills in both speaking and writing. In addition to hiragana and katakana, it introduces the third writing system, kanji. (Format: Lecture 3 Hours, Laboratory 1 Hour)

**JAPA 2001 (3.00 CR)****INTERMEDIATE JAPANESE I**

**Prereq:** JAPA 1011; or permission of the Department

This course is a continuation of JAPA 1011, focusing on intermediate grammar with particular attention to developing communications skills in writing and speaking and introducing additional kanji characters. (Format: Lecture 3 Hours, Laboratory 1 Hour)

**JAPA 2011 (3.00 CR)****INTERMEDIATE JAPANESE II**

**Prereq:** JAPA 2001; or permission of the Department

This course is a continuation of JAPA 2001, incorporating further study of intermediate grammar and kanji. It also emphasizes the development of creative writing and presentation. (Format: Lecture 3 Hours, Laboratory 1 Hour)

**LINGUISTICS**

Like other inquiries which are central to human experience, language has long been the focus of intellectual examination. Speculation on the nature of language appears in the works of Plato, Aristotle and other Greek philosophers. Although a number of disciplines, from literary studies to computer science, share the study of language with linguistics, the focus of linguistics is the scientific study of language. Linguists are interested in how human language is organized in the human mind and in how the social structures of human communities shape language to their own purposes, reflecting themselves in language use.

**LINGUISTICS COURSES**

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department or Program Co-ordinator must be obtained.

**Note:** The following course can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees:  
LING 2001

**LING 2001 (3.00 CR)****INTRODUCTION TO THE STUDY OF LANGUAGE**

This course introduces the structural, social and psychological forces that shape language, beginning with a consideration of the origins and nature of language and proceeding to an examination of languages as systems and the ways they structure meaning. (Format: Lecture 3 Hours) (Distribution: Arts-b)

**LING 3001 (3.00 CR)****FUNDAMENTALS OF INTERNAL LINGUISTICS**

**Prereq:** Second-year standing; LING 2001; students completing a Major or Honours in Modern Languages, Literatures and Cultures will be admitted without LING 2001; or permission of the Department

This course examines the nature and structure of language, the physiology of speech, word formation, theoretical concepts of sentence generation, and the phonological and historical forces involved in language creation and language change. It is recommended for senior students in language and literary studies, and students interested in language pathology. (Format: Lecture 3 Hours) (Exclusion: Any version of LING 3001 previously offered with a different title)

**LING 3011 (3.00 CR)****LANGUAGE AND SOCIETY**

**Prereq:** Second-year standing; LING 2001; or permission of the Department

This course introduces issues and methods in the field of sociolinguistics, the study of the interaction between language and the structure and functioning of society. It includes topics in language variation, the contact of languages, and issues in second-language acquisition, with an emphasis on Canadian contexts. (Format: Lecture 3 Hours)

**MODERN LANGUAGES, LITERATURES AND CULTURES****Interdisciplinary B.A. Program**

**MAJOR in Modern Languages, Literatures, and Cultures is 72 credits earned as follows:**

- A. 33 credits from one of French or Hispanic Studies, with a minimum of 15 from the 3/4000 levels, as follows:
  - 33 21 from FREN 1701, 1711, 2401, 2501, 2601, 3101 and 3111
  - 3 to 6 from FREN 1801, 1811, 1821, 2801
  - 6 to 9 from French literature 3301, 3401, 3411, 3501, 3511, 3601, 3611, 3621, 3761, 3771, 3801, 3811, 3871, 4951
- or 33 18 from SPAN 1101, 1111, 2101, 2111, 3101, 3111
- 3 to 6 from SPAN 1801, 1811
- 9 to 12 from SPAN 3060, 3241, 3251, 3261, 3301, 3311, 3321, 3331, 4201, 4800/4801, 4950/51
- B. 24 credits from a second of the three study areas listed below, as follows:
  - 24 18 from FREN 1701, 1711, 2401, 2501, 3101 and 3111
  - 6 from FREN 1801, 1811, 1821, 2601, 2801, 3301, 3401, 3411, 3501, 3511, 3601, 3611, 3621, 3761, 3771, 3801, 3811, 3871, 4951
- or 24 15 from GERM 1001, 1011, 2001, 2011, 3001
- 9 from GERM 2601, 2701, 2811, 3401, 3501, 4901, 4951
- or 24 18 from SPAN 1101, 1111, 2101, 2111, 3101, 3111
- 6 from SPAN 1801, 1811, 3060, 3241, 3251, 3261, 3301, 3311, 3321, 3331, 4201, 4800/4801, 4950/51
- C. 12 credits from a third language, other than those previously selected, chosen from French, German, Spanish or Japanese, as follows:
  - 12 from FREN 1701, 1711, 2401, 2501
- or 12 from GERM 1001, 1011, 2001, 2011

- or 12 from SPAN 1101, 1111, 2101, 2111
- or 12 from JAPA 1001, 1011, 2001, 2011
- D. 3 from Linguistics 3001

**Note:** All literature and culture courses are to be chosen in consultation with the Program Advisor.

**Note:** Any student exempted from a language course must replace that course with a language course at a higher level, or if none is available, with a literature or culture course taught in the target language, chosen in consultation with the Program Advisor.

**Note:** Students choosing this major may not complete a minor in either the first or second languages of specialization; they may complete a minor in the third language of specialization.

**HONOURS in Modern Languages, Literatures and Cultures is composed of 78 credits as follows:**

- 72 credits as earned in the Modern Languages, Literatures and Cultures degree, and
- 6 credits from MLLC 4990 (Honours Essay)

**Note:** Any student exempted from a language course must replace that course with a language course at a higher level, or if none is available, with a literature or culture course taught in the target language, chosen in consultation with the Program Advisor.

**Note:** Students completing this Honours program may not record a minor in either the first or second languages of specialization.

**MODERN LANGUAGES, LITERATURES AND CULTURES COURSES**

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**MLLC 4990 (6.00 CR)  
HONOURS ESSAY**

The subject and program of research will be established at the end of the third year and submitted to the Department for approval. The essay must show evidence of scholarly investigation. (Format: Independent Study/Thesis) [Note 1: Permission of the Department is required.]

## MUSIC

The study and performance of music has been a special feature of Mount Allison University since the first Certificate in Music was granted in 1874. The Department's splendid facilities and versatile faculty enable Mount Allison to provide a thoroughly professional experience within a small, residential, liberal arts university.

The Department of Music offers programs leading to the Bachelor of Music and Bachelor of Arts (Major or Honours in Music) degrees. Each program is designed to develop well-rounded musicians as well as to provide students with a solid foundation in the liberal arts. A Minor in Music is available to students in any program at Mount Allison. The various curricula conform to the guidelines adopted by the Canadian University Music Society. A wide variety of courses are offered in the following areas: Theory and Composition, Music History and Literature, Music Education, and Performance.

The Department of Music also offers courses and ensembles as electives for students outside the Bachelor of Music, B.A. (Honours or Major in Music), and Minor in Music programs. Subject to auditions, all students may participate in the Music Department's ensembles that are valued at one credit per year of participation.

**Note:** For information concerning the Bachelor of Music Degree Requirements, see Section 11.6 - Music.

### Disciplinary B.A. Programs

These programs are designed for students who wish to study music along with more Arts and Science courses than the Bachelor of Music program allows.

Students planning a B.A. (Major in Music) should note that the course requirements for this major can take three academic years to fulfill. It is strongly recommended, therefore, that following consultation with the Music Program Advisor students declare this major before the end of first year and complete a Music Application form.

### MINOR in Music is 24 credits earned as follows:

- 12 from 1101, 1111, 1201, 1703
- 6 from 1001, 1011, 1211, 2001, 2011, 2021, 2101, 2111, 2141, 2151, 2201, 2211, 2703
- 6 from Music courses at the 3000/4000 level

### MAJOR in Music is 60 credits earned as follows:

- 12 from MUSC 1101, 1111, 1201, 1703
- 6 from MUSC 2101, 2111
- 3 from MUSC 1619-4619, 1629-4629, 1639-4639, 1649-4649, 1659-4659, 1669-4669, 1689-4689
- 21 from Music courses at the 3/4000 level
- 18 from complementary courses from other disciplines in Arts and Letters and Humanities

Note: Ensemble credits must be completed over at least two years

### HONOURS in Music (Course Option) is 66 credits earned as follows:

- 42 credits as in the first four lines of the Major in Music
- 9 credits from MUSC 1211, 2201, 2211
- 15 credits from Music courses at the 3/4000 level

### HONOURS in Music (Thesis Option) is 66 credits earned as follows:

- 42 credits as in the first four lines of the Major in Music
- 9 credits from MUSC 1211, 2201, 2211
- 9 credits from Music courses at the 3/4000 level
- 6 from MUSC 4990

## MUSIC COURSES

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following courses can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees: MUSC 2001, 2011, 2021

### MUSC 1001 (3.00 CR) FUNDAMENTALS OF MUSIC I

This course is an introduction to fundamental concepts of music theory, including notation and technical terminology, as well as to listening, singing, and keyboard skills. [Note 1: This course is not available for credit for the Bachelor of Music program. Credit will not be given for this course if credit has already been granted for MUSC 1011, 1101, or 1111.] (Format: Lecture 3 Hours)

### MUSC 1011 (3.00 CR) FUNDAMENTALS OF MUSIC II

**Prereq:** MUSC 1001

This course is a continuation of Music 1001. [Note 1: This course is not available for credit for the Bachelor of Music program. Credit will not be given for this course if credit has already been granted for MUSC 1101 or 1111.] (Format: Lecture 3 Hours)

### MUSC 1101 (3.00 CR) MATERIALS OF MUSIC I

**Prereq:** MUSC 1011; or Entrance Assessment

This course is a study of the harmonic, melodic, rhythmic, and formal materials of music through analysis, writing, and listening. (Format: Lecture 3 Hours)

### MUSC 1111 (3.00 CR) MATERIALS OF MUSIC II

**Prereq:** MUSC 1101

This course is a continuation of Music 1101. (Format: Lecture 3 Hours)

### MUSC 1201 (3.00 CR) INTRODUCTION TO MUSIC HISTORY AND LITERATURE

**Prereq:** Registration in the first year of the B.Mus. or B.A. Major or Minor in Music; or permission of the Department

This course introduces students to the history and literature of music in the Western World and provides an overview of the various styles, eras, and genres of Western Art Music. It considers and compares changing concepts, styles, forms, and media. (Format: Lecture 3 Hours)(Exclusion: MUSC 2001; Any version of MUSC 1201 previously offered with a different title)



**MUSC 1211 (3.00 CR)****MUSIC HISTORY AND LITERATURE I****Prereq:** MUSC 1201; or permission of the Department**Coreq:** MUSC 1111

This course surveys Western Art Music history and literature from its beginnings to 1750. (Format: Lecture 3 Hours)(Exclusion: Any version of MUSC 1211 previously offered with a different title)

**MUSC 1501 (3.00 CR)****APPLIED MUSIC I**

This applied course involves individual weekly instruction in vocal and instrumental music and facilitates technical command, interpretive insight, and understanding of pedagogical procedures. It stresses the development of the ability to perform with competence and musical understanding while providing a comprehensive background of music of various periods, styles, and composers. [Note 1: This course is only open to students enrolled in the Bachelor of Music program. Note 2: All piano and organ students enrolled in MUSC 1501 must take MUSC 1601.] (Format: Private Instruction 1 Hour)

**MUSC 1511 (3.00 CR)****APPLIED MUSIC II****Prereq:** MUSC 1501

This applied course continues the weekly instruction started in MUSC 1501, culminating in a juried performance at the end of the term. (Format: Private Instruction 1 Hour).

**MUSC 1521 (3.00 CR)****DICTION FOR SINGERS**

This course introduces the symbols and sounds of the International Phonetic Alphabet and its application to the English, French, German, and Italian languages. It explores differences between spoken and sung language and investigates and practices physical processes required to produce the various sounds. [Note 1: This course is only open to students enrolled in the Bachelor of Music program, or by permission of the Department. Note 2: All voice students must complete MUSC 1521 in the course of their degree. It is recommended that this course be completed within the first two years of study.] (Format: Lecture 3 Hours)

**MUSC 1601 (3.00 CR)****COLLABORATIVE KEYBOARD I****Coreq:** MUSC 1501

This course provides the basic knowledge and skills necessary for artistic accompaniment. It examines different styles of music, including Art Song, Lieder, and Oratorio, as well as accompaniments for instrumental works and orchestral reductions. [Note 1: This course is only open to students enrolled in the Bachelor of Music program, or by permission of the Department. Note 2: All piano and organ students registered for MUSC 1501 must also take MUSC 1601](Format: Integrated Lecture and Laboratory 3 Hours)(Exclusion: MUSC 2603 Collaborative Keyboard I)

**MUSC 1703 (3.00 CR)****AURAL SKILLS AND MUSICIANSHIP I****Coreq:** MUSC 1101; or permission of the Department

This course studies the practical aspects of music theory. It includes practice in aural musicianship skills, including sight-singing, interval recognition, dictation, improvisation, and keyboard skills. (Format: Integrated Lecture and Laboratory 1.5 Hours)

**MUSC 1801 (3.00 CR)****INTRODUCTION TO APPLIED MUSIC I**

This applied course provides individual weekly instruction in vocal or instrumental music, emphasizing technical proficiency and the development of interpretive insight. This course stresses the development of the ability to perform with competence and musical understanding. [Note: MUSC 1801 is open to students from other degree programs by permission of the Department, dependent on available space and completion of a successful audition. All other applied music courses are only open to students in the B.Mus. program.] (Format: Private Instruction 1 Hour)

**MUSC 1811 (3.00 CR)****INTRODUCTION TO APPLIED MUSIC II****Prereq:** MUSC 1801; or permission of the Department

This applied course continues the weekly instruction started in MUSC 1801, culminating in a juried performance at the end of the term. (Format: Private Instruction 1 Hour)

**MUSC 1991 (3.00 CR)****SPECIAL TOPIC IN MUSIC**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for MUSC 1991 more than once, provided the subject matter differs.] (Format: Variable)

**MUSC 2001 (3.00 CR)****INTRODUCTION TO MUSIC**

This course considers the art of listening to music. It introduces the elements of music and examines Western classical music, popular and folk music, world music, and film music through historical and analytical lenses to explore the various ways that music continues to hold meaning. [Note 1: This course is not available for credit for the Bachelor of Music program.] (Format: Lecture 3 Hours) (Distribution: Arts-a) (Exclusion: MUSC 1201)

**MUSC 2011 (3.00 CR)****SURVEY OF WESTERN MUSIC**

This course focuses on the study of music in the Western world and on the development of listening skills. In it the study of form and style in music are interrelated with historical considerations in a chronological approach to music history. [Note 1: This course is not available for credit for the Bachelor of Music program. Credit will not be given for this course if credit has already been granted for MUSC 1201.] (Format: Lecture 3 Hours) (Distribution: Arts-a)

**MUSC 2021 (3.00 CR)**  
**WORLD MUSIC**

This course introduces different musical traditions from around the world and examines the innovative and eclectic mix that makes up world music today. It discusses elements of musical language such as melody, rhythm, harmony, counterpoint, and musical form and considers the variety of musical instruments used around the world as well as a number of outstanding individual musicians of various styles, old and new. (Format: Lecture 3 Hours) (Distribution: Arts-a)

**MUSC 2101 (3.00 CR)**  
**MATERIALS OF MUSIC III**

**Prereq:** MUSC 1111; or permission of the Department

This course is a review and continuation of MUSC 1111, covering more advanced materials in the harmonic, melodic, rhythmic, and formal elements of music. (Format: Lecture 3 Hours)

**MUSC 2111 (3.00 CR)**  
**MATERIALS OF MUSIC IV**

**Prereq:** MUSC 2101; or permission of the Department

This course is a continuation of Music 2101. (Format: Lecture 3 Hours, Laboratory 2 Hours)

**MUSC 2141 (3.00 CR)**  
**COMPOSITION AND MUSIC TECHNOLOGY I**

**Prereq:** MUSC 1111; or permission of the Department

This course focuses on the small forms using traditional concepts, techniques, and idioms in a variety of styles and instrumentation. It places emphasis on developing an awareness of the factors that come into play in musical composition as well as on recognizing and being able to produce strong musical material. It includes instruction in notation software and digital audio. (Format: Lecture 3 Hours)(Exclusion: Any version of MUSC 2141 previously offered with a different title)

**MUSC 2151 (3.00 CR)**  
**COMPOSITION AND MUSIC TECHNOLOGY II**

**Prereq:** MUSC 2141; or permission of the Department

This course is a continuation of Music 2141. (Format: Lecture 3 Hours)(Exclusion: Any version of MUSC 2151 previously offered with a different title)

**MUSC 2201 (3.00 CR)**  
**MUSIC HISTORY AND LITERATURE II**

**Prereq:** MUSC 1201; or permission of the Department

**Coreq:** MUSC 2101

This course surveys Western Art Music history and literature from 1750 to 1900. (Format: Lecture 3 Hours)(Exclusion: Any version of MUSC 2201 previously offered with a different title)

**MUSC 2211 (3.00 CR)**  
**MUSIC HISTORY AND LITERATURE III**

**Prereq:** MUSC 2201; or permission of the Department

**Coreq:** MUSC 2111

This course surveys Western Art Music history and literature from 1900 to the present. It examines the social, cultural, and historical contexts of the works studied. (Format: Lecture 3 Hours)(Exclusion: Any version of MUSC 2211 previously offered with a different title)

**MUSC 2501 (3.00 CR)**  
**APPLIED MUSIC III**

**Prereq:** MUSC 1511

This applied course involves individual weekly instruction in vocal and instrumental music and facilitates technical command, interpretive insight, and understanding of pedagogical procedures. It stresses the development of the ability to perform with competence and musical understanding while providing a comprehensive background of music of various periods, styles, and composers. (Format: Private Instruction 1 Hour)

**MUSC 2511 (3.00 CR)**  
**APPLIED MUSIC IV**

**Prereq:** MUSC 2501

This applied course continues the weekly instruction started in MUSC 2501 culminating in a juried performance at the end of the term. (Format: Private Instruction 1 Hour)

**MUSC 2603 (3.00 CR)**  
**COLLABORATIVE KEYBOARD II**

**Prereq:** MUSC 1601

This course provides practical experience in collaborating with vocalists and instrumentalists, building on the skills learned in MUSC 1601. (Format: Private Instruction 0.5 hours)(Exclusion: MUSC 3603 Collaborative Keyboard II)

**MUSC 2613 (3.00 CR)**  
**CHAMBER MUSIC I**

**Prereq:** Second-year standing in the BMUS program; and permission of the Department

This course provides practical experience in the art of chamber music performance. [Note 1: The Department assigns instructors and approved repertoire (30 minutes minimum) in the term prior to the course being taught.] (Format: Private Instruction 1 Hour)

**MUSC 2703 (3.00 CR)**  
**AURAL SKILLS AND MUSICIANSHIP II**

**Prereq:** MUSC 1703; or permission of the Department

This course continues work on aural skills and musicianship begun in MUSC 1703. (Format: Integrated Lecture and Laboratory 1.5 Hours)

**MUSC 2991 (3.00 CR)**  
**SPECIAL TOPIC IN MUSIC**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for MUSC 2991 more than once, provided the subject matter differs.] (Format: Variable)

**MUSC 3001 (3.00 CR)****INTRODUCTION TO MUSIC IN CANADA**

**Prereq:** Second-year standing; or permission of the Department

This course surveys from historical and social perspectives music in Canada from the beginning of the seventeenth century to the present and includes the folk music of indigenous and immigrant groups. (Format: Lecture 3 Hours)

**MUSC 3121 (3.00 CR)****ORCHESTRATION**

**Prereq:** MUSC 2111; or permission of the Department

This course focuses on use of the instruments of the standard symphony orchestra through study of the orchestral literature and the relationship between medium and style. In it students prepare scores and parts for solo and combinations of instruments. (Format: Lecture 3 Hours)(Exclusion: Any version of MUSC 3121 previously offered with a different title; MUSC 3131)

**MUSC 3141 (3.00 CR)****COMPOSITION & MUSIC TECHNOLOGY III**

**Prereq:** MUSC 2151; or permission of the Department

This course is a continuation of MUSC 2151 with work in both small and large forms, using concepts, techniques, and idioms of twentieth century art music. (Format: Lecture 3 Hours)(Exclusion: Any version of MUSC 3141 previously offered with a different title)

**MUSC 3151 (3.00 CR)****COMPOSITION AND MUSIC TECHNOLOGY IV**

**Prereq:** MUSC 3141; or permission of the Department

This course is a continuation of MUSC 3141. (Format: Lecture 3 Hours)(Exclusion: Any version of MUSC 3151 previously offered with a different title)

**MUSC 3161 (3.00 CR)****ARRANGING**

**Prereq:** MUSC 2111; or permission of the Department

This course focuses on arranging extant or original music material for specific instruments and instrumental families, including voice. It includes considerations of style, instrumentation and notation, and final progression from arrangement through score and parts preparation to performance. (Format: Lecture 3 Hour)(Exclusion: Any version of MUSC 3161 previously offered with a different title; MUSC 3171)

**MUSC 3201 (3.00 CR)****OPERA HISTORY**

**Prereq:** 3 credits from MUSC 1201, MUSC 2011, DRAM/ENGL 1701; or permission of the Department

This course is intended to provide the student with an overview of the history of opera from its earliest beginnings to the present day. Representative works of the major opera composers are studied throughout the term. The emphasis of the course is on studying operatic forms, styles, and the musico-dramatic associations between music, libretto and onstage action. It also considers the struggle for dominance between text and music. (Format: Lecture 3 Hours)(Exclusion: MUSC 3211 History of Opera)

**MUSC 3221 (3.00 CR)****KEYBOARD LITERATURE**

**Prereq:** MUSC 2211; or permission of the Department

This course surveys the standard literature for keyboard instruments, specifically for harpsichord and piano, from the Baroque period to the present day. [Note 1: This course is strongly recommended for all piano students.](Format: Lecture 3 Hours) (Exclusion: MUSC 3211 Keyboard Literature)

**MUSC 3231 (3.00 CR)****MUSIC AND DIFFERENCE**

**Prereq:** 3 credits from MUSC 1201, 2011; or permission of the Department

The course focuses on music from a variety of styles, ethnicities, and historical eras (both "art" and "popular" music) in order to explore ways in which difference has shaped musical life, experience, and composition. Although it addresses how ageism, racism, classism and disability studies relate to music, the course emphasizes feminist perspectives on music and more specifically gay, lesbian, bisexual, transgender, and queer identities and issues within music and music-making. (Format: Lecture 3 Hours)

**MUSC 3261 (3.00 CR)****WOMEN AND MUSIC**

**Prereq:** 3 credits from MUSC 1201, 2011; or permission of the Department

This course explores the many roles women have played in music and music-making, as performers, composers, conductors, teachers, critics, patrons or subjects of musical composition. The main focus of the course is a detailed look at music and culture in diverse periods of history and from various styles, traditions, and ethnicities. It also looks at the role of feminist criticism and gender studies in challenging our perceptions and assumptions about music. (Format: Lecture 3 Hours) (Exclusion: MUSC 3211 Women in Music; MUSC 2221)

**MUSC 3271 (3.00 CR)****MODERN MUSICAL THEATRE**

**Prereq:** 3 credits from MUSC 1201, MUSC 2011, DRAM/ENGL 1701; or permission of the Department

This course surveys selected important works in the American and British Musical theatre traditions from precursors in the nineteenth-century to the mature musicals of Stephen Sondheim and Andrew Lloyd Webber. It studies musicals in their historical and cultural context and as they relate to popular song and musical styles. (Format: Lecture 3 Hours)(Exclusion: MUSC 3211 Musical Theatre; MUSC 2231)

**MUSC 3281 (3.00 CR)****THE BEATLES**

**Prereq:** MUSC 1111; However, non-B. Mus. or B.A Major in Music students with third-year standing will be admitted; or permission of the Department

This course addresses the musical, social, and cultural issues surrounding one of the most important rock groups of the twentieth century. Drawing on a large body of recent scholarship, the course considers the Beatles' albums from early covers of music by other artists to their own "song cycles" such as Sgt. Pepper and Revolver. (Format: Integrated Lecture and Laboratory)(Exclusion: MUSC 3991 The Beatles)

**MUSC 3301 (3.00 CR)**  
**VOCAL PEDAGOGY**

**Prereq:** Musc 1111; or permission of the Department

This practical course acquaints the student with the skills required for good singing and also teaches how to teach voice students. It studies the basic physiology, acoustics and co-ordination of singing in a class situation. The emphasis is on vocal production and expression and includes solo singing of standard repertoire, with critical analysis by the class of vocal technique and style. It also considers the application of vocal principles to choral singing. (Format: Integrated Lecture and Laboratory 3 Hours)(Exclusion: Any version of MUSC 3301 previously offered with a different title)

**MUSC 3311 (3.00 CR)**  
**ELEMENTARY METHODS**

**Prereq:** MUSC 2111; or permission of the Department

This course is designed to introduce students to the topic of music and young children, and to acquaint them with current philosophies and methodologies with an emphasis upon those of Zoltan Kodály and Carl Orff. It is designed for any music students who are interested in the topic of music and young children and is not limited to those students planning to teach in the public schools. (Format: Lecture 3 Hours)

**MUSC 3321 (3.00 CR)**  
**BRASS METHODS**

**Prereq:** MUSC 1111; or permission of the Department

This practical course acquaints the student with the basic skills necessary for the playing and teaching of the instruments of the brass family. It concentrates on basic embouchure formation, posture, hand position, fingering or slide position, proper breathing, and methodology. (Format: Integrated Lecture and Laboratory 3 Hours)

**MUSC 3331 (3.00 CR)**  
**WOODWIND METHODS**

**Prereq:** MUSC 1111; or permission of the Department

This practical course acquaints the student with the basic skills necessary for the playing and teaching of the instruments of the woodwind family. It concentrates on basic embouchure formation, posture, fingering, proper breathing, and methodology. (Format: Integrated Lecture and Laboratory 3 Hours)

**MUSC 3341 (3.00 CR)**  
**STRING METHODS**

**Prereq:** MUSC 1111; or permission of the Department

This practical course acquaints the student with the basic skills necessary for the playing and teaching of the instruments of the bowed string family. The instructor assigns instruments, and the student plays one instrument (violin, viola, cello, or bass) for the duration of the course. The course concentrates on basic techniques of posture, position, bowing and left-hand finger patterns. (Format: Integrated Lecture and Laboratory 3 Hours)

**MUSC 3351 (3.00 CR)**  
**PERCUSSION METHODS**

**Prereq:** MUSC 1111; or permission of the Department

This practical course provides the basic skills necessary for the playing and teaching of the instruments of the percussion family. It concentrates initially on rudimentary and advanced drumming techniques, followed by basic instruction on tympani and mallet instruments, and on percussion instruments of indefinite pitch. (Format: Integrated Lecture and Laboratory 3 Hours)(Exclusion: MUSC 4351)

**MUSC 3401 (3.00 CR)**  
**INTRODUCTION TO CONDUCTING**

**Prereq:** MUSC 1111; or permission of the Department

This course is designed to train students in the physical techniques and fundamentals of conducting and in basic rehearsal strategies and score preparation. (Format: Lecture/Laboratory 3 Hours)

**MUSC 3411 (3.00 CR)**  
**CHORAL CONDUCTING**

**Prereq:** MUSC 2111; MUSC 3301; MUSC 3401; or permission of the Department

This course focuses on various aspects of choral conducting, including expressive conducting techniques, rehearsal strategies, and choral literature and programming. (Format: Lecture/Laboratory 3 Hours)

**MUSC 3421 (3.00 CR)**  
**INSTRUMENTAL CONDUCTING**

**Prereq:** MUSC 2111; MUSC 3401; or permission of the Department

This course is designed to train students in conducting, leading and rehearsing an instrumental ensemble, particularly the symphonic band. Other topics include instrumental ensemble literature, score study, and instrument characteristics. (Format: Lecture/Laboratory 3 Hours)

**MUSC 3501 (3.00 CR)**  
**APPLIED MUSIC V**

**Prereq:** MUSC 2511

This applied course involves individual weekly instruction in vocal and instrumental music and facilitates technical command, interpretive insight, and understanding of pedagogical procedures. It stresses the development of the ability to perform with competence and musical understanding while providing a comprehensive background of music of various periods, styles, and composers.(Format: Private Instruction 1 Hour)

**MUSC 3511 (3.00 CR)**  
**APPLIED MUSIC VI**

**Prereq:** MUSC 3501

This applied course continues the weekly instruction started in MUSC 3501, culminating in a juried performance at the end of the term. (Format: Private Instruction 1 Hour) (Exclusion: MUSC 3581; MUSC 3591)

**MUSC 3581 (3.00 CR)****APPLIED MUSIC VI WITH SHARED RECITAL**

**Prereq:** MUSC 3501; and permission of the Department, granted only after a successful recital application jury

This applied course continues the weekly instruction started in MUSC 3501, with the addition of the preparation and execution of a public recital program of approximately 30 minutes of music under the supervision of the student's Applied Music teacher. [Note 1: Students intending to register for MUSC 3581 must normally have achieved a grade of at least A- in MUSC 3501; must have participated in two Collegia, or the equivalent, since enrolling in the B.Mus. program; and must pass a Recital Application Jury.] (Format: Private Instruction 1 Hour) (Exclusion: MUSC 3511; MUSC 3591)

**MUSC 3591 (3.00 CR)****APPLIED MUSIC VI WITH FULL RECITAL**

**Prereq:** MUSC 3501; permission of the Department, granted only after a successful recital application jury

This applied course continues the weekly instruction started in MUSC 3501, with the addition of the preparation and execution of a public recital program of approximately 60 minutes of music under the supervision of the student's Applied Music teacher. [Note 1: Students intending to register for MUSC 3591 must normally have achieved a grade of at least A- in MUSC 3501; must have participated in two Collegia, or the equivalent, since enrolling in the B.Mus. program; and must pass a Recital Application Jury.] (Format: Private Instruction 1 Hour) (Exclusion: MUSC 3511; MUSC 3581)

**MUSC 3603 (3.00 CR)****COLLABORATIVE KEYBOARD III**

**Prereq:** MUSC 2603

This course provide students with practical experience in collaborating with vocalists and instrumentalists, building on the skills learned in MUSC 2603. (Format: Private Instruction 0.5 Hours)(Exclusion: MUSC 4601 Collaborative Keyboard III; MUSC 4603 Collaborative Keyboard III)

**MUSC 3613 (3.00 CR)****CHAMBER MUSIC II**

**Prereq:** MUSC 2613; and permission of the Department

This course provides practical experience in the art of chamber music performance. [Note 1: The Department assigns instructors and approved repertoire (30 minutes minimum) in the term prior to the course being taught.] (Format: Private Instruction 1 Hour)

**MUSC 3801 (3.00 CR)****JAZZ IMPROVISATION**

**Prereq:** Permission of the Department

This course is a performance-based exploration of improvisation, the quintessential skill for jazz musicians. It deepens theoretical understanding of this genre including blues form and standard jazz progressions. (Format: Integrated Lecture and Lab 3 Hours; Exclusion: MUSC 3991/3993 Jazz Improvisation)

**MUSC 3813 (3.00 CR)****OPERA WORKSHOP**

**Prereq:** Take 24 credits; minimum grade c-;

This course is a performance-based exploration of opera, involving the musical, linguistic, and dramatic preparation and performance of roles and scenes from the operatic repertoire. It examines all aspects of an operatic production, including the use of sets, props, costumes, and lights. It emphasizes the interpretation of music and the use of the singing voice as a necessary part of character development, culminating in a staged public performance. [Note: Students may register for this course more than once provided the subject matter differs, for a maximum of 6 credits] (Format: Integrated Lecture and Lab 3 Hours) (Exclusion: MUSC 2679; MUSC 3679; MUSC 4679)

**MUSC 3991 (3.00 CR)****SPECIAL TOPIC IN MUSIC**

**Prereq:** MUSC 2211; or permission of the Department

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for MUSC 3991 more than once, provided the subject matter differs.] (Format: Variable)

**MUSC 4181 (3.00 CR)****ANALYTICAL TECHNIQUES**

**Prereq:** MUSC 2111; or permission of the Department

This course develops skills in the analysis of music through practical application of some of the central approaches and tools used in analyzing music from a range of periods and styles. (Format: Lecture 3 Hours)

**MUSC 4221 (3.00 CR)****PROSEMINAR IN MUSIC HISTORY**

**Prereq:** MUSC 2211; or permission of the Department

This is a senior seminar on the formulation of critical concepts as they relate to specific styles and works, including questions of analytical systems, the formation of values, reception theory, aesthetics, and allied matters. It emphasizes the development of research, bibliographical, writing skills, and presentation skills. (Format: Seminar 3 Hours)

**MUSC 4311 (3.00 CR)****SECONDARY METHODS**

**Prereq:** MUSC 2111; or permission of the Department

This course examines several aspects of music instruction at the secondary level including choral, instrumental, and general music programs. It includes an introduction to the use of technology in music programs and classroom harmony instruments. (Format: Lecture 3 Hours)

**MUSC 4361 (3.00 CR)****PIANO PEDAGOGY**

**Prereq:** MUSC 1111; or permission of the Department

This course acquaints the student with the essential principles of creative keyboard teaching in an individual or group situation. It examines the historical development of keyboard playing along with the special problems confronting the teacher of today. A survey of teaching material includes the comparison and evaluation of approaches for children and older beginners. (Format: Lecture 3 Hours)(Exclusion: Any version of MUSC 4361 previously offered with a different title)

**MUSC 4501 (3.00 CR)****APPLIED MUSIC VII**

**Prereq:** 3 credits from MUSC 3511, 3581, 3591

This applied course involves individual weekly instruction in vocal and instrumental music and facilitates technical command, interpretive insight, and understanding of pedagogical procedures. It stresses the development of the ability to perform with competence and musical understanding while providing a comprehensive background of music of various periods, styles, and composers. (Format: Private Instruction 1 Hour)

**MUSC 4511 (3.00 CR)****APPLIED MUSIC VIII**

**Prereq:** MUSC 4501

This applied course continues the weekly instruction started in MUSC 4501, culminating in a juried performance at the end of the term. (Format: Private Instruction 1 Hour)

**MUSC 4581 (3.00 CR)****APPLIED MUSIC VIII WITH SHARED RECITAL**

**Prereq:** MUSC 4501; and permission of the Department, granted only after a successful recital application jury

This applied course continues the weekly instruction started in MUSC 4501, with the addition of the preparation and execution of a public recital program of approximately 30 minutes of music under the supervision of the student's Applied Music teacher. [Note 1: Students intending to register for MUSC 4581 must normally have achieved a grade of at least A- in MUSC 4501, must have participated in two Collegia, or the equivalent, since enrolling in the B.Mus. program, and must pass a Recital Application Jury.] (Format: Private Instruction 1 Hour) (Exclusion: MUSC 4511; MUSC 4591; any version of MUSC 4581 offered with a different title)

**MUSC 4591 (3.00 CR)****APPLIED MUSIC VIII WITH FULL RECITAL**

**Prereq:** 3 credits from MUSC 3581, 3591; MUSC 4501; and permission of the Department, granted only after a successful recital application jury

This applied course involves the preparation and execution of a public recital program of approximately 60 minutes of music under the supervision of the student's Applied Music teacher. [Note 1: Students intending to register for MUSC 4591 must normally have successfully completed MUSC 3581 or MUSC 3591; must normally have achieved a grade of at least A- in MUSC 4501, and must pass a Recital Application Jury.] (Format: Private Instruction 1 Hour) (Exclusion: MUSC 4511; MUSC 4581; any version of MUSC 4591 offered with a different title)

**MUSC 4603 (3.00 CR)****COLLABORATIVE KEYBOARD IV**

**Prereq:** MUSC 3603; or permission of the Department

This course provides students with practical experience in collaborating with vocalists and instrumentalists, building on the skills learned in MUSC 3603. (Format: Private Instruction 0.5 Hours)

**MUSC 4613 (3.00 CR)****CHAMBER MUSIC III**

**Prereq:** MUSC 3613; and permission of the Department

This course provides practical experience in the art of chamber music performance. [Note 1: The Department assigns instructors and approved repertoire (30 minutes minimum) in the term prior to the course being taught.] (Format: Private Instruction 1 Hour)

**MUSC 4803 (3.00 CR)****PERFORMANCE SEMINAR**

**Prereq:** MUSC 2511; and permission of the Department

This course provides opportunities for performance and critical feedback. It considers performance-related issues such as stage presence, communication with an audience, auditions, performance anxiety, marketing, distribution of recorded music, programming, and collaboration with other musicians. (Format: Integrated Lecture and Lab 1.5 Hours) (Exclusion: MUSC 3993 Performance Seminar)

**MUSC 4950 (6.00 CR)****INDEPENDENT STUDY IN MUSIC**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for MUSC 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**MUSC 4951 (3.00 CR)****INDEPENDENT STUDY IN MUSIC**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for MUSC 4950/51/53 more than once, provided the subject matter differs.] (Format: Independent Study)

**MUSC 4990 (6.00 CR)****HONOURS THESIS**

The content of study is to be determined by the student in conjunction with one or more supervisors of the course. (Format: Independent Study/Thesis) [Note 1: Permission of the Department is required.]

### **MUSC 4991 (3.00 CR) SPECIAL TOPIC IN MUSIC**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for MUSC 4991 more than once, provided the subject matter differs.] (Format: Variable)

### **ONE CREDIT MUSIC ENSEMBLES:**

Music ensembles focus on developing skills and practical experience in performance and include public performances. [Note 1: Music ensembles are open to all university students regardless of major. With the exception of Choral Society, which does not require an audition, a successful audition is required for enrolment in any ensemble.] (Format: Experiential)

**MUSC 1619-4619 WIND ENSEMBLE**  
**MUSC 1629-4629 CHAMBER ORCHESTRA**  
**MUSC 1639-4639 SYMPHONIC BAND**  
**MUSC 1649-4649 JAZZ ENSEMBLE**  
**MUSC 1659-4659 ELLIOTT CHORALE**  
**MUSC 1669-4669 CHORAL SOCIETY**  
**MUSC 1689-4689 SPECIAL ENSEMBLE**

### **RECITAL AND CONCERTS**

Performances by students, faculty, and guest artists form an important part of the musical life of Mount Allison. The University Performing Arts Series brings to the campus top performers of international rank. Various music faculty ensembles provide an "in residence" group of performers. Frequent student recitals and Collegia Musica provide further enrichment as well as opportunities for students to gain valuable listening and performance experience.

## **PHILOSOPHY**

Philosophy is the endeavour to understand the basic questions that arise for us in our world, and to formulate this understanding in a critical manner. Traditionally, these questions have touched upon what can be known, what can be valued, what our own position is socially and individually- above all, how we can know what we think we know.

The Department believes that careful study of the great works of the past and present provides the best access to philosophical questions. Thus many of our courses concentrate the student on developments in the history of philosophy, from the sixth century B.C. to the twentieth century. Courses in logic, ethics, metaphysics, philosophy of science and the philosophy of mind examine special issues in these developments and are compared to the formulation of these same issues in Asian philosophy.

The study of philosophy invites critical and imaginative consideration of the questions themselves.

Only thereby can the student learn to appreciate their force, and the variety of responses to them. Since philosophical questions are deeply imbedded in the development of western civilization, one can study philosophy in conjunction with a wide range of other disciplines. Moreover, our students have found it a useful background for subsequent endeavours in fields such as law, civil service, medicine, theology, and further graduate study.

### **Disciplinary B.A. Programs**

#### **MINOR in Philosophy is 24 credits, earned as follows:**

- 6 from the Humanities 1600 Series
- 6 to 12 from Philosophy at the 2000 level
- 6 to 12 from Philosophy at the 3/4000 level, chosen in consultation with the Program Advisor

#### **MAJOR in Philosophy is 60 credits earned as follows:**

- 6 from the Humanities 1600 Series
- 3 from PHIL 2611
- 3 to 9 from Philosophy at the 2000 level
- 12 from PHIL 3000, 3011, 3101, 3221, 3231, 3240, 3250, 3301, 3311, 3351, and 3891
- 12 to 18 from Philosophy at the 3/4000 level, including at least 6 at the 4000 level
- 18 credits from complementary courses in Arts and Letters and Humanities, chosen in consultation with the Program Advisor

#### **HONOURS in Philosophy is 72 credits earned as follows:**

- 42 credits as in the first five lines of the Major, plus:
- 3 credits from PHIL 3631
- 6 from PHIL 4990
- 21 from Philosophy at the 3/4000 level, chosen in consultation with the Program Advisor

## BASIC COURSES

The Humanities 1600-series is intended to provide an introduction to Humanities disciplines. These three-credit courses offered by the participating disciplines of Classics, History, Philosophy and Religious Studies are designed to acquaint beginning students with the methodologies typical of these disciplines and to familiarize them with the approaches taken, as well as the sorts of themes pursued and questions raised in these disciplines.

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following courses can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees: PHIL 1600 series, PHIL 2611

### PHIL 1601 (3.00 CR) PLATO'S REPUBLIC

This course consists of a discussion of fundamental philosophical issues presented in Plato's Republic, such as the nature of morality, selfhood, God, reality, and knowledge. It may also use non-western sources to illuminate and evaluate central presuppositions and preoccupations of the western philosophical tradition that persist today. (Format: Lecture 3 Hours) (Distribution: Humanities-a) (Exclusion: Any version of PHIL 1601 previously offered with a different title)

### PHIL 1611 (3.00 CR) SELF, SOCIETY, AND FREEDOM

This course investigates ideas about the self in the western philosophical tradition, including work in contemporary philosophy. Issues may include freedom and responsibility, otherness, the relationship between mind and body, the relationship between humans and animals, the impact of trauma, suffering or oppression on self-identity, and the existence or non-existence of the soul. (Format: Lecture 3 Hours) (Distribution: Humanities-a) (Exclusion: Any version of PHIL 1611 previously offered with a different title)

### PHIL 1621 (3.00 CR) REASON, WILL, AND WORLD

This course introduces the study of philosophy by looking at some major thinkers in the Western philosophical tradition as well as the fundamental and enduring questions they raise about human beings and the world. Specific topics may include the nature of knowledge, desire, goodness, human flourishing, and free will. Students explore these themes to discover the relations between reason, the will, and the world. (Format: Lecture 3 Hours) (Distribution: Humanities-a) (Exclusion: Any version of PHIL 1991 previously offered with the title The Story of Reason)

### PHIL 1651 (3.00 CR) THE CHANGING IMAGE OF NATURE

This course examines shifting and conflicting attitudes towards "Nature" which impact everything from how we can come to know about nature, scientifically, to ethical implications for how human beings relate to other natural beings. It uses readings from the history of western philosophy, especially from the early modern era, to assess the extent to which we have inherited these convictions or developed alternatives to them. (Format: Lecture 3 Hours) (Distribution: Humanities-a)

### PHIL 1991 (3.00 CR) SPECIAL TOPIC IN PHILOSOPHY

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for PHIL 1991 more than once, provided the subject matter differs.] (Format: Variable)

### PHIL 2301 (3.00 CR) INTRODUCTION TO FEMINIST PHILOSOPHY

**Prereq:** 3 credits from Humanities 1600 Series; or permission of the Department

This course provides an overview and introduction to the critique of traditional philosophy undertaken by feminist philosophers who argue that philosophy, along with other human endeavours, is shaped by the prejudices and assumptions of its practitioners. They do not reject philosophy as a discipline but explore new ways of doing philosophy. The aim of this course is to explore these new approaches in order to examine how feminist philosophers have combined the tools and methods of philosophy with their insights and values. (Format: Lecture 3 Hours) (Exclusion: Any version of PHIL 2991 previously offered with this title)

### PHIL 2401 (3.00 CR) INTRODUCTORY AESTHETICS

**Prereq:** 3 credits from Humanities 1600 Series; or permission of the Department

This course focuses on aesthetics and the philosophy of art, drawing on both the history of philosophy (including figures such as Plato, Aristotle, Kant, and Nietzsche) and on contemporary theories about art. Topics may include the problem of defining art, the role of art and the artist in society, the experience of the sublime, and the nature of aesthetic judgment and taste. [Note 1: This course may count as 3 credits in Art History.] (Format: Lecture 3 Hours)

### PHIL 2511 (3.00 CR) INTRODUCTORY PHILOSOPHY OF SCIENCE

**Prereq:** 3 credits from Humanities 1600 Series; or permission of the Department

This course explores competing philosophical explanations of scientific theory and practice. Based on historical and contemporary cases, it compares philosophical theories including logical positivism, scientific realism, scientific pluralism, sociology of scientific knowledge, and the most recent critiques from social constructivism and feminism. (Format: Lecture 3 Hours)



**PHIL 2611 (3.00 CR)**  
**INTRODUCTORY LOGIC**

This course introduces the study of logic, examining the basic structure of arguments, common reasoning fallacies, truth tables, and propositional logic. Further topics may include an introduction to quantification theory, syllogistic reasoning, Venn diagrams, Mill's methods, and issues central to inductive and deductive reasoning. (Format: Lecture 3 Hours) (Distribution: Natural Science-a) (Exclusion: Any version of PHIL 2611 previously offered with a different title; PHIL 2621)

**PHIL 2701 (3.00 CR)**  
**INTRODUCTORY ETHICS**

**Prereq:** 3 credits from Humanities 1600 Series; or permission of the Department

An introduction to the history and philosophical problems of ethics in the western tradition. This will acquaint the student with a number of received traditions based on metaphysical, religious, rational, and pragmatic grounds, as well as introduce certain fundamental perennial problems of moral decision-making. (Format: Lecture 3 Hours)

**PHIL 2801 (3.00 CR)**  
**INTRODUCTION TO METAPHYSICS**

**Prereq:** 3 credits from Humanities 1600 Series; or permission of the Department

An introduction to the study of metaphysics understood broadly as the study of the fundamental nature of reality. This will include the study of various themes including the nature of substance, divinity, causation, appearance and reality, the one and the many, mind and matter. (Format: Lecture 3 Hours)

**PHIL 2991 (3.00 CR)**  
**SPECIAL TOPIC IN PHILOSOPHY**

**Prereq:** 3 credits from Humanities 1600 Series; or permission of the Department

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for PHIL 2991 more than once, provided the subject matter differs.] (Format: Variable)

**PHIL 3000 (6.00 CR)**  
**ANCIENT PHILOSOPHY**

**Prereq:** 3 credits from PHIL; 3 credits from PHIL at the 2000 level excluding PHIL 2611; or permission of the Department

This course examines the philosophical developments in the Ancient era within the thought of the Pre-Socratics, Plato, and Aristotle. Topics may include themes from metaphysics, epistemology, moral and political philosophy and aesthetics. (Format: Lecture 3 Hours)

**PHIL 3011 (3.00 CR)**  
**HELLENISTIC AND ROMAN PHILOSOPHY**

**Prereq:** 3 credits from PHIL; 3 credits from PHIL at the 2000 level excluding PHIL 2611; or permission of the Department

This course examines the philosophical developments in the late Ancient and Roman eras within the various schools of the Epicureans, Stoics, Sceptics, Cynics, Romans, and Neoplatonists. Themes may include the nature and possibility of knowledge, the ethics of happiness, the problem of free will, and the nature of the Divine. (Format: Lecture 3 Hours)

**PHIL 3101 (3.00 CR)**  
**MEDIAEVAL PHILOSOPHY**

**Prereq:** 3 credits from PHIL; 3 credits from PHIL at the 2000 level excluding PHIL 2611; or permission of the Department

This course examines themes and developments in the mediaeval monotheistic tradition of philosophy (ca. 350-1400 CE). The enduring philosophical topics discussed may include knowledge of God, universals, the nature of the human person, freedom of the will, the scope of philosophy, and the relationship between faith and reason. (Format: Lecture 3 Hours)

**PHIL 3221 (3.00 CR)**  
**MODERN PHILOSOPHY: THE RATIONALIST TRADITION**

**Prereq:** 3 credits from PHIL; 3 credits from PHIL at the 2000 level excluding PHIL 2611; or permission of the Department

This course investigates the thought of Descartes, Spinoza, and Leibniz, the leading seventeenth-century continental thinkers who formulated the great a priori systems. The capacity and function of human reason fully to understand the world is a theme common to these thinkers; it constitutes one of the major concerns of the course, a concern balanced by investigation of why these systems have reached such diverse answers to the substantive issues of how the world is to be understood. (Format: Lecture 3 Hours)

**PHIL 3231 (3.00 CR)**  
**MODERN PHILOSOPHY: THE EMPIRICIST TRADITION**

**Prereq:** 3 credits from PHIL; 3 credits from PHIL at the 2000 level excluding PHIL 2611; or permission of the Department

This course investigates the thought of Locke, Berkeley, and Hume, the leading English-language thinkers of the seventeenth and eighteenth centuries. These authors seem to be reacting to the a priori tradition examined by Philosophy 3221. But they also make claims that are not merely reactive, and the course examines the degree to which they propose a coherent interpretation of the extent and the limitations of human understanding. (Format: Lecture 3 Hours)

**PHIL 3240 (6.00 CR)**  
**KANT**

**Prereq:** 3 credits from PHIL; 3 credits from PHIL at the 2000 level excluding PHIL 2611; or permission of the Department

This course examines Kant's Critical project, including the arguments for the existence of God, freedom, and immortality to which it led. This necessitates close study of Critique of Pure Reason, and may include other texts such as Groundwork for the Metaphysics of Morals, Critique of Judgment, Religion Within the Bounds of Mere Reason, and selections from Kant's social and political philosophy. (Format: Lecture 3 Hours)(Exclusion: PHIL 4200)

**PHIL 3250 (6.00 CR)****NINETEENTH-CENTURY GERMAN PHILOSOPHY**

**Prereq:** 3 credits from PHIL; 3 credits from PHIL at the 2000 level excluding PHIL 2611; or permission of the Department

This course provides an overview of the philosophical revolution that followed in the wake of Kant, often referred to as Germany's counterpart to the French Revolution. This strain of philosophy challenged the traditional understanding of the relationship of mind and world and the nature of reality itself. The course begins with J.G. Fichte's late eighteenth-century attempt to carry on the spirit of Kantian critical philosophy by grounding it in the radical freedom of the 'I' before considering such figures as the early German Romantics, Schelling, Hegel, Kierkegaard, and Nietzsche. (Format: Lecture 3 Hours)

**PHIL 3301 (3.00 CR)****ANALYTIC PHILOSOPHY IN ORIGIN**

**Prereq:** 3 credits from PHIL; 3 credits from PHIL at the 2000 level excluding PHIL 2611; or permission of the Department

This course is an historical introduction to the major philosophers and movements in the analytic and Anglo-American philosophical traditions from the turn of the twentieth century to 1950. Topical focus is on language, logic, ethics, and attempts to change the conception of metaphysics and to diminish the scope of philosophy. Authors studied may include Bradley, James, Frege, Russell, Moore, Dewey, Wittgenstein, Schlick, Carnap, and Ayer. (Format: Lecture 3 Hours)(Exclusion: PHIL 3991 Analytic Philosophy: Origins to 1950)

**PHIL 3311 (3.00 CR)****ANALYTIC PHILOSOPHY IN PROGRESS**

**Prereq:** 3 credits from PHIL; 3 credits from PHIL at the 2000 level excluding PHIL 2611; or permission of the Department

This course is an historical and topical introduction to the major figures and trends in the analytic philosophical tradition from 1950 to the present day, with special attention to the various ways philosophy comes to be presented and practiced. Topical focus may include ordinary language philosophy, the attack on logical positivism, the blending of empiricism and pragmatism, naturalism, and the re-emergence of work in metaphysics and ethics. Authors studied may include Wittgenstein, Ryle, Austin, Searle, Kripke, Putnam, Davidson, Lewis, Anscombe, Foot, Sellars, Rorty, and Brandom. (Format: Lecture 3 Hours)(Exclusion: PHIL 4611 Analytic Philosophy: 1950 to Present; PHIL 3991 Analytic Philosophy: 1950 to Present)

**PHIL 3351 (3.00 CR)****PHENOMENOLOGY & EXISTENTIALISM**

**Prereq:** 3 credits from PHIL; 3 credits from PHIL at the 2000 level excluding PHIL 2611; or permission of the Department

This course introduces phenomenology and existentialism from the nineteenth century to the present. Existentialism encompasses a range of philosophies concerned with themes of freedom, anxiety, responsibility, and authentic living. Phenomenology is a philosophical methodology aiming to describe and understand the complex layers of our experience, including how memory, history, and community shape our perceptions. This course may include nineteenth- and twentieth-century authors such as Søren Kierkegaard, Friedrich Nietzsche, Jean-Paul Sartre, Simone de Beauvoir, Maurice Merleau-Ponty, and Franz Fanon, and other more recent thinkers. (Format: Lecture 3 Hours) (Exclusion: PHIL 3991 Phenomenology and Existentialism)

**PHIL 3511 (3.00 CR)****PHILOSOPHY OF THE LIFE SCIENCES**

**Prereq:** PHIL 2511; B.Sc. students already doing 3/4000 level work in their own field, and students with declared programs in Environmental Science, Environmental Studies, or Cognitive Science will be admitted; or permission of the Department.

In recent decades the philosophical assumptions underlying the life sciences have been seen increasingly as distinct from the physical sciences. This course will examine this difference as well as the linkage between them, then turn to the philosophical issues within evolutionary theory, the notion of species and problems of classification, persistent controversies surrounding sociobiology, genetic control, use of animals in research, and the application of bioethics. (Format: Lecture 3 Hours)

**PHIL 3631 (3.00 CR)****SYMBOLIC LOGIC**

**Prereq:** PHIL 2611; or permission of the Department

This is a course in quantificational logic, concentrating on the nature of logic, methods of deduction, quantification theory, and the logic of relational statements. (Format: Lecture 3 Hours)

**PHIL 3711 (3.00 CR)****BIOMEDICAL ETHICS**

**Prereq:** PHIL 2701; or permission of the Department

This course will consist of the examination of a number of contemporary issues, such as gene therapy, abortion, reproductive technologies, euthanasia, HIV testing and confidentiality, organ retrieval, and advanced directives. In a framework of health, we will discuss larger philosophical questions such as: the possibility of assigning and comparing values, the nature of the human self, the possibilities of agency and responsibility, duties to society, gender and health, the meanings of technology, and social justice. While the focus of this course is not on ethical theory, we will make use of classical moral theories and principles to frame our analyses. (Format: Lecture 3 Hours)

**PHIL 3721 (3.00 CR)****ENVIRONMENTAL ETHICS**

**Prereq:** PHIL 2701; or permission of the Department

After reviewing traditional attitudes toward the environment, this course will explore recent attempts to "apply" ethical analysis to such problems as pollution and conservation. We will pay particular attention to the ways in which problems of preservation challenge us to extend our traditional norms and values. To what extent, for example, does growing sensitivity to our natural environment require of us a new "environmental ethic" and oblige us to recognize "animal rights"? (Format: Lecture 3 Hours)

**PHIL 3731 (3.00 CR)****PHILOSOPHY OF LAW**

**Prereq:** 3 credits from PHIL at the 2000 level; or permission of the Department

This course introduces central issues in the philosophy of law. Topics may include the relation of law and morality, the rule of law in relation to coercion and liberty, the nature of judicial decision-making, the origin and justification of legal systems, and theories of the nature and function of law from the competing claims of legal positivism, formalism, and realism. (Format: Lecture 3 Hours)

**PHIL 3741 (3.00 CR)**  
**PHILOSOPHY OF DISABILITY**

**Prereq:** 3 credits from PHIL; 3 credits from PHIL at the 2000 level excluding PHIL 2611; or permission of the Department

This course introduces the philosophical study of disability. It raises important questions that challenge our thinking and assumptions in a range of ways and explores issues such as: social versus medical models of disability; definitions of impairment and disability, including how they have changed through history; disability as identity and how it interacts with other identities; the relationship between concepts of disability and concepts of well-being; disability and culture; and philosophy's treatment of intellectual disability in the context of philosophy's traditional valorization of reason. (Format: Lecture 3 Hours) (Exclusion: PHIL 4991 Philosophy of Disability)

**PHIL 3891 (3.00 CR)**  
**INDIAN PHILOSOPHY**

**Prereq:** 3 credits from PHIL at the 2000 level; or permission of the Department

A study of selected primary sources in the Indian philosophical tradition, from the Vedas and Upanishads to the recent work of thinkers like S. Radhakrishnan. Topics usually include the nature of reality, moral obligation, Divinity, selfhood and freedom, the philosophy of love, and various social and political issues. [Note 1: This course is cross-listed as RELG 3891 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours)

**PHIL 3991 (3.00 CR)**  
**SPECIAL TOPIC IN PHILOSOPHY**

**Prereq:** 3 credits from PHIL; 3 credits from PHIL at the 2000 level; or permission of the Department

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for PHIL 3991 more than once, provided the subject matter differs.] (Format: Variable)

**PHIL 4001 (3.00 CR)**  
**SELECTED TOPICS IN THE HISTORY OF PHILOSOPHY**

This course involves careful study of one or more texts and themes in the History of Philosophy from antiquity to the twentieth century, depending on the interests and discretion of the instructor. [Note 1: Permission of the Department is required. Note 2: Students may register for PHIL 4001 more than once, provided the subject matter differs.] (Format: Seminar 3 Hours) (Exclusion: Any version of PHIL 4101 in which the same material was covered)

**PHIL 4111 (3.00 CR)**  
**SELECTED TOPICS IN MORAL, SOCIAL AND POLITICAL PHILOSOPHY**

This course examines closely one or more themes and texts in Moral, Social, and Political Philosophy, depending on the interests and discretion of the instructor. Topics include contemporary virtue theory, deontological ethics, theories of recognition, multiculturalism, and cultural criticism. [Note 1: Permission of the Department is required. Note 2: Students may register for PHIL 4111 more than once, provided the subject matter differs.] (Format: Seminar 3 Hours)

**PHIL 4211 (3.00 CR)**  
**SELECTED TOPICS IN CONTINENTAL PHILOSOPHY**

This course explores twentieth- and twenty-first-century philosophical schools associated with French and German traditions of thought. Topics may include phenomenology, existentialism, hermeneutics, deconstruction, affect theory, feminist new materialism, and other developments in contemporary Continental thought. [Note 1: Permission of the Department is required. Note 2: Students may register for PHIL 4211 more than once, provided the subject matter differs.] (Format: Lecture 3 Hours)

**PHIL 4511 (3.00 CR)**  
**PHILOSOPHY OF MIND**

This course studies the philosophical arguments that attempt to resolve the real nature of mental states vis à vis the physical states of the brain. Topics include how it is we have knowledge of our own sensations, beliefs, desires, and consciousness; how we gain knowledge of other minds; and the more general questions of how we should best proceed to resolve these issues. [Note 1: Permission of the Department is required.] (Format: Lecture 3 Hours)

**PHIL 4521 (3.00 CR)**  
**SELECTED TOPICS IN PHILOSOPHY OF SCIENCE**

This course examines contemporary themes in the philosophy of science. Topics may include models and their use in scientific reasoning, philosophical foundations of statistical inference, the nature of scientific methods, truth and scientific progress, the political and moral elements of scientific research, science and the environment. It investigates the philosophical foundations of scientific theories of evolution, matter, time, biological life, and human social activity. [Note 1: Permission of the Department is required. Note 2: Students may register for PHIL 4521 more than once, provided that the subject matter differs.] (Format: Seminar 3 hours)

**PHIL 4611 (3.00 CR)**  
**SELECTED TOPICS IN ANALYTIC PHILOSOPHY**

This course examines contemporary themes in the analytic tradition of philosophy. Topics may include truth, logicism, the nature of reference, skepticism, the realism/anti-realism debate, historicism and the collapse of positivism or contextualism. [Note 1: Permission of the Department is required. Note 2: Students may register for PHIL 4611 more than once, provided the subject matter differs] (Format: Lecture 3 Hours)

**PHIL 4950 (6.00 CR)  
INDEPENDENT STUDY IN PHILOSOPHY**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for PHIL 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**PHIL 4951 (3.00 CR)  
INDEPENDENT STUDY IN PHILOSOPHY**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for PHIL 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**PHIL 4990 (6.00 CR)  
HONOURS THESIS**

This course comprises independent research and study under the direction of one or more supervisors approved by the Department. [Note 1: Students should discuss the format and process for the Honours thesis as early as possible with the Departmental Program Advisor. Note 2: Permission of the Department is required.] (Format: Independent Study/Thesis)

**PHIL 4991 (3.00 CR)  
SPECIAL TOPIC IN PHILOSOPHY**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for PHIL 4991 more than once, provided the subject matter differs.] (Format: Variable)

## PHILOSOPHY, POLITICS, AND ECONOMICS

The PPE program offers students the opportunity of a multidisciplinary immersion in the problems of action and reflection which shape the human world. Philosophy, politics, and economics share in common a foundational concern with the abundant and widely varying ideas of what is good for human beings and the challenges that arise from attempts at realizing and reconciling these different ideas of the good in practice. Each discipline develops this concern from a conceptually and historically distinct standpoint.

The study of philosophy teaches students to reflect on fundamental questions about nature, human experience, and our responsibility to others. By working with classic texts from the history of philosophy, and key problems within contemporary philosophy, students will catalogue their emerging philosophical commitments to cultivate a broad view of human experience and values, and to develop their facility with rational and critical engagement.

The study of economics consists of examining the decisions of participants in economic systems to discover regularities of behaviour in the expectation that through this better understanding society will be able to remedy undesirable results and achieve better ones. Such a study includes looking at the historical development of modern economies and the evolution of thinking about economic systems; examining intended and unintended outcomes of economic policies; and revealing the economic consequences of participation in trade, exchange, or employment relationships.

The study of politics is concerned with the nature and workings of power, state and government; the rights and duties of citizenship; the limits and possibilities of collective political action; and the social, economic, and cultural formations that shape the life of the political community. The scope of inquiry is local, national, and international; it includes the empirical analysis of individuals, groups, institutions and processes as well as the investigation of longstanding philosophical questions concerning human nature, freedom, democracy, and justice.

The PPE program brings these three areas of study together in one multidisciplinary program designed to balance prescriptive dimensions of the theoretical enterprise with descriptive ones that are grounded in empirical considerations, such that graduates of the program are broadly educated to consider complex contemporary concerns.

### Multidisciplinary B.A. Programs

**MAJOR in PPE is 66 credits earned as follows:**

**Philosophy Component (24 credits)**

- 3 from PHIL 1601, 1611, 1621, 1651
- 6 from PHIL 2611, 2701
- 6 from PHIL 3000, 3011, 3101, 3221, 3231, 3240, 3250, 3301, 3311, 3351, 3891
- 6 from 3631, 3711, 3721, 3731, 3741, PHIL 4000 level
- 3 from PHIL 4000 level

**Politics Component (21 credits)**

- 3 from POLS 1001
- 6 from POLS 2001, 2101, 2211, 2221, 2301
- 6 from POLS 3001, 3011, 3031, 4000, 4011

6 from either POLS 31/41, 32/42, or 33/43 series

### Economics Component (21 credits)

9 from ECON 1001, 1011, 2701  
 3 from ECON 1701, MATH 2311  
 6 from ECON 3/4000 level  
 3 from ECON 4001, 4011, 4501, 4521

## HONOURS in PPE is 84 credits with a disciplinary emphasis on Philosophy, Politics, or Economics earned as follows:

### A. Philosophy Emphasis

#### Core

6 from PHIL 1601, 1611, 1621, 1651  
 6 from PHIL 2611, 2701  
 3 from PHIL 2301, 2511  
 12 from PHIL 3000, 3011, 3101, 3221, 3231, 3240, 3250, 3301, 3311, 3351, 3891  
 9 from PHIL 3511, 3631, 3711, 3721, 3731, 3741  
 6 from PHIL 4000 level

#### Economics

9 from ECON 1001, 1011, 2701  
 3 from ECON 1701, MATH 2311  
 6 from ECON 3/4000 level  
 3 from ECON 4001, 4011, 4501, 4521

#### Politics

3 from POLS 1001  
 6 from POLS 2001, 2101, 2211, 2221, 2301  
 6 from POLS 3001, 3011, 3031, 4000, 4011  
 6 from either POLS 31/41, 32/42, or 33/43 series

### B. Politics Emphasis

#### Core

3 from POLS 1001  
 6 from POLS 2001, 2101, 2211, 2221, 2301  
 33 from three of the POLS 3/4000 series including:  
 a) at least 9 credits from the POLS 30/40 series  
 b) at least 9 credits from one of the POLS 31/41, 32/42, or 33/43 series  
 c) at least 9 credits from a second of the POLS 31/41, 32/42, or 33/43 series

*Note: at least 6 of the 33 credits must be at the 4000 level*

#### Economics

9 from ECON 1001, 1011, 2701  
 3 from ECON 1701, MATH 2311  
 6 from ECON 3/4000 level  
 3 from ECON 4001, 4011, 4501, 4521

#### Philosophy

3 from PHIL 1601, 1611, 1621, 1651  
 6 from PHIL 2701, 2611  
 6 from PHIL 3000, 3011, 3101, 3221, 3231, 3240, 3250, 3301, 3311, 3351, 3891  
 6 from PHIL 3631, 3711, 3721, 3731, 3741, PHIL 4000 level

### C. Economics Emphasis

#### Core

9 from ECON 1001, 1011, 2701  
 3 from ECON 1701, MATH 2311  
 12 from ECON 2001, 2011, 2101, 2111  
 6 from MATH 1151, 2221; or MATH 1111, 1121  
 3 ECON 3/4000 level  
 3 ECON 4001, 4011, 4501, 4521  
 6 ECON 4801, 4811, 4700

*Note: The Department of Economics recommends 12 credits from ECON 4801, 4811, 4700 for students intending to pursue graduate work in Economics.*

#### Philosophy

3 from PHIL 1601, 1611, 1621, 1651  
 6 from PHIL 2701, 2611  
 6 from PHIL 3000, 3011, 3101, 3221, 3231, 3240, 3250, 3301, 3311, 3351, 3891  
 6 from PHIL 3631, 3711, 3721, 3731, 3741, PHIL 4000 level

#### Politics

3 from POLS 1001  
 6 from POLS 2001, 2101, 2211, 2221, 2301  
 6 from POLS 3001, 3011, 3031, 4000, 4011  
 6 from either POLS 31/41, 32/42, or 33/43 series

**Note:** Students who have declared their intention to complete a Major or Honours Degree in PPE must consult with a Program Advisor to determine an appropriate group of courses before registering for their third and fourth years of study. Approval of the Program Advisor will be required before the student registers for courses.

**Note:** Students who have declared their intention to complete a Major or Honours Degree in PPE will write an Integrative Essay in one of their 4000 level courses in Philosophy, in Politics, or in Economics which demonstrates their capacity to draw on fundamental concepts from all three contributing disciplines of the PPE Program. The faculty member teaching the course will evaluate the Integrative Essay. Two faculty members in the two other contributing disciplines will be available for consultation, and will be designated by faculty member teaching the course in consultation with the students.

**Note:** COMM 3411, 3501, 4141, 4501, and 4521 may be designated as Economics electives for students taking a Major, Minor or Honours in Economics or the Major or Honours in Philosophy, Politics, and Economics.

## PHYSICS

Physics seeks to describe the nature of the physical world. The most fundamental of the natural sciences, it forms an essential part of any serious program of study in any branch of science, and indeed, to an increasing degree in the modern world, it is important in any well-balanced curriculum for the non-scientist as well.

In the undergraduate program the development of fundamental concepts and mathematical formulation proceeds simultaneously in a selected series of courses in physics and mathematics, from the elementary ideas of classical mechanics through modern relativistic, quantum and nuclear theories.

Whether the student wishes to prepare for more advanced study in physics itself; for a career in applied areas such as photonics, materials science, or biomedical engineering; for a career in such fields as astronomy, space research, or oceanography; or simply wishes to be informed in an important area of scientific thought, he/she will be able to make an appropriate choice of courses from the list.

### Disciplinary B.Sc. Programs

#### MINOR in Physics is 24 credits earned as follows:

- 3 from PHYS 1041, 1051
- 3 from MATH 1111
- 3 from PHYS 1551
- 15 from MATH 1121 or Physics, including 6 from the 3/4000 level, chosen in consultation with the Program Advisor.

**Note:** Only one of PHYS 1021, 1031 and 1401 can be used on the Physics Minor

**Note:** Students who complete the Minor in Applied Physics may not complete this Minor

#### MINOR in Applied Physics is 24 credits earned as follows:

- 3 from PHYS 1041, 1051
- 6 from PHYS 1551, 2801
- 3 from MATH 1111
- 12 from PHYS 1401, 3321, 3361, 3581, 3701, 3751, COMP 1631, 1731, MATH 1121, including 6 from the 3/4000 level, chosen in consultation with the Program Advisor

#### MINOR in Astronomy is 24 credits earned as follows:

- 9-12 from PHYS 1021, 1031, 3001, 3021
  - 3 from PHYS 1041, 1051
  - 9-12 from BIOL 2811, 3021, CHEM 2111, 2211, 3251, GENS 1401, 3451, PHIL 1651, 2511, PHYS 1551, 3701, 3811, 4311, 4411, 4851, or maximum of 3 credits from BIOL 2701, COMP 1731, GENS 2431, MATH 2311, PHYS 2801
- Note: Many of these courses have one or more prerequisite courses. Students should plan their sequence of courses in consultation with the Program Advisor.

**Note:** At least 6 credits need to be from the 3/4000 level for this Minor.

#### MAJOR in Physics is 63 credits earned as follows:

- 6 from PHYS 1051, 1551
- 6 from CHEM 1001, 1021
- 3 from BIOL 1001, BIOL 1501, BIOC 1001, GENS 1401, PSYC 1001 or PSYC 1011
- 3 from COMP 1631, MATH 2221
- 12 from MATH 1111, 1121, 2111, 2121
- 21 from PHYS 2251, 2801, 3101, 3451, 3701, 3811, 4411
- 12 from Physics with at least 9 at the 3/4000 level, chosen in consultation with the Program Advisor

**Note:** Students pursuing a Major in Physics may be allowed to substitute PHYS 1041 for PHYS 1051 with permission of the Department

#### HONOURS in Physics is 87 credits earned as follows:

- 51 credits as in the first six lines of the Major
- 6 from PHYS 4990
- 6 from PHYS 3201, 3821
- 3 from MATH 3141
- 3 from MATH 2221, 3131, 3161, 3221, 3411
- 3 from Physics at any level, chosen in consultation with the Program Advisor
- 3 from Physics at the 3/4000 level, chosen in consultation with the Program Advisor
- 6 from Physics at the 4000 level, chosen in consultation with the Program Advisor
- 6 from Physics or Mathematics at the 3000/4000 level, chosen in consultation with the Program Advisor

**Note:** Students pursuing Honours in Physics may be allowed to substitute PHYS 1041 for PHYS 1051 with permission of the Department

### Interdisciplinary B.Sc. Program

#### B.Sc. HONOURS in Mathematics and Physics is 90 credits earned as follows:

- 3 from BIOL 1001, BIOL 1501, BIOC 1001, GENS 1401, PSYC 1001 or PSYC 1011
- 18 from MATH 1111, 1121, 2111, 2121, 2211, 2221
- 3 from COMP 1631
- 6 from CHEM 1001, 1021
- 12 from PHYS 1051, 1551, 2251, 2801
- 3 from MATH/PHYS 3451
- 9 from MATH 3111, 3211, 3311
- 6 from MATH 3141, 3161
- 6 from MATH 3131, 3151, 3221, 3231, 3411, 3531, 4111, 4121, 4311, PHYS 4101, 4201, 4311, 4831, 4851, 4911; only 3 credits may be selected from the listed Physics courses
- 18 from PHYS 3101, 3201, 3701, 3811, 3821, 4411
- 6 from PHYS 4990

**Note:** Students pursuing Honours in Mathematics and Physics may be allowed to substitute PHYS 1041 for PHYS 1051 with permission of the Department

## PHYSICS COURSES

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following courses can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees: PHYS 1021, 1031, 1041, 1051, 1401

### PHYS 1021 (3.00 CR) SOLAR SYSTEM ASTRONOMY

This course introduces observational and solar system astronomy. Topics include observational astronomy, celestial mechanics, solar system patterns, theories of origin, radiometric dating, processes which transform planet surfaces, planetary atmospheres, comets, asteroids, meteoroids, and the search for life beyond Earth. It considers extrasolar planetary systems in the context of theories of solar system formation. [Note 1: In addition to daytime lab periods all students will need to be present at a number of night time observing periods at the university observatory.] (Format: Lecture 3 Hours, Laboratory 1.5 Hours) (Distribution: Natural Science-b/c) (Exclusion: PHYS 1001)

### PHYS 1031 (3.00 CR) STARS, GALAXIES AND THE UNIVERSE

This course introduces stellar and galactic astronomy as well as cosmology. Topics include optics and telescopes, atomic structure and spectra, the sun, stellar types and evolution, stellar remnants (black holes, neutron stars, and white dwarfs), quantum and relativistic ideas, galaxies, and dark matter and energy. [Note 1: In addition to daytime lab periods all students will need to be present at a number of night time observing periods at the university observatory.] (Format: Lecture 3 Hours, Laboratory 1.5 Hours) (Distribution: Natural Science-c) (Exclusion: PHYS 1001)

### PHYS 1041 (3.00 CR) PHYSICS FOR THE LIFE SCIENCES

This algebra-based course introduces and describes from a Physics perspective the many physical processes involving living organisms. Topics include biomechanics, kinesiology, energy and the body, fluid flow, electrical signaling, electrocardiography and electroencephalography, sound and hearing, light and vision, microscopy, and imaging of brain function. [Note 1: This course is designed for students planning to major in a life science.] (Format: Integrated Lecture/Collaborative Learning/Laboratory 6 Hours) (Distribution: Natural Science a/c) (Exclusion: PHYS 1051; PHYS 3521)

### PHYS 1051 (3.00 CR) GENERAL PHYSICS I

This algebra based course introduces modern physics. Topics include kinematics, dynamics, work and energy, momentum in one dimension, fluid mechanics, waves and sound, DC circuit electricity, geometrical and physical optics. [Note 1: Students enrolling in Physics 1051 should normally have completed a university preparatory level course in Mathematics.] (Format: Integrated Lecture/Collaborative Learning/Laboratory, 6 Hours) (Distribution: Natural Science a/c) (Exclusion: PHYS 1041)

### PHYS 1401 (3.00 CR) THE PHYSICS OF MUSIC AND SOUND

This course explores various aspects of music production, sound transmission and perception. The topics include simple harmonic motion, waves and sound, standing waves, spectral analysis, human ear and voice, auditorium acoustics, and woodwind, brass, and percussion instruments. It also introduces mathematical analysis. (Format: Integrated Lecture and Laboratory 3 Hours) (Distribution: Natural Science-c)

### PHYS 1551 (3.00 CR) GENERAL PHYSICS II

**Prereq:** MATH 1111; 3 credits from PHYS 1041, 1051; or permission of the Department

This calculus-based course introduces further issues in classical and modern physics. Topics include time-dependent acceleration, gravitation, rotational motion, angular momentum, simple harmonic motion, electric forces, fields and potentials, magnetism, and electromagnetic induction. The course also introduces special relativity, nuclear reactions, particle physics, and cosmology. (Format: Integrated Lecture and Laboratory, 6 Hours)

### PHYS 1991 (3.00 CR) SPECIAL TOPIC IN PHYSICS

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for PHYS 1991 more than once, provided the subject matter differs.] (Format: Variable)

### PHYS 2251 (3.00 CR) CLASSICAL WAVES

**Prereq:** PHYS 1551; MATH 1121; or permission of the Department  
In this course the study of free, forced and damped harmonic oscillator is followed by a treatment of discrete coupled oscillators in one dimension. This is then generalized to the study of traveling and standing waves in continuous media. Ideas of Fourier components of signals are introduced. A number of examples will be taken from physical optics, and the topics in this course provide the theoretical basis for understanding modern photonic devices. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**PHYS 2801 (3.00 CR)****DATA ACQUISITION AND ANALYSIS**

**Prereq:** MATH 1111; 3 credits from PHYS 1041, 1051; or permission of Department

This course provides techniques and software tools that assist in the use of computers to enhance work in science. It introduces basic methodology for data manipulation such as error analysis, statistical analysis of data, linear regression, graphing, aspects of simulation, digitization, interfacing and data acquisition. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**PHYS 2991 (3.00 CR)****SPECIAL TOPIC IN PHYSICS**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for PHYS 2991 more than once, provided the subject matter differs.] (Format: Variable)

**PHYS 3001 (3.00 CR)****ASTROPHYSICS**

**Prereq:** PHYS 1551; PHYS 1031; or permission of the Department

This course examines issues in stellar, galactic and extra-galactic astrophysics. Topics covered include celestial co-ordinate systems, astronomical luminosity relationships, astrophysical instrumentation, stellar spectra, Hertzsprung-Russell diagrams, stellar evolution, protostars, stellar deaths (white dwarfs, neutron stars, stellar black holes), energy processes and transport in stars, stability and variable stars, the structure of our galaxy, galaxy types and evolution, and energetic sources such as quasi-stellar objects. [Note 1: In addition to daytime lab periods all students will need to be present at a number of night time observing periods at the university observatory.] (Format: Lecture 3 Hours, Laboratory 3 Hours)

**PHYS 3021 (3.00 CR)****LIFE IN THE UNIVERSE**

**Prereq:** Second-year standing; PHYS 1021; or permission of the Department

This course will examine issues concerning the origin, evolution and survival of life in the universe from an astrophysical perspective. Topics covered include cosmology and the origin and evolution of the universe, solar system origin, detection of extrasolar planets, what is life and what conditions are necessary to sustain it, searches for life in the solar system, habitable zones, complex organics in extraterrestrial materials, delivery of organics to the primordial and current Earth and other planets, astrophysical threats to life on Earth, life in space, and searches for extraterrestrial intelligence. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**PHYS 3101 (3.00 CR)****ELECTRICITY AND MAGNETISM**

**Prereq:** PHYS 1551; MATH/PHYS 3451; MATH 2111; MATH 2121; or permission of the Department

This course will cover vector analysis, differential and integral calculus as well as solutions of the Poisson and Laplace equations for different electrostatic problems. Certain special techniques such as method of images, separation of variables and multipole expansion are then introduced. Magnetostatics and electric and magnetic fields in matter are also examined leading to the conclusion of this course where Maxwell equations are integrated and applied. (Format: Lecture 3 Hours, Laboratory/Problem Solving 3 Hours)

**PHYS 3201 (3.00 CR)****STATISTICAL MECHANICS**

**Prereq:** PHYS 2251; MATH 2111; or permission of the Department

This course examines in detail the Maxwell-Boltzmann Bose-Einstein and Fermi-Dirac distributions and the conditions and physical systems under which they apply. (Format: Lecture 3 Hours)

**PHYS 3231 (3.00 CR)****ADVANCED PHYSICAL CHEMISTRY**

**Prereq:** CHEM 2211; or 6 credits from PHYS 3701, 3821; or permission of the Department

This course examines physical and chemical applications of kinetics, including those related to reaction mechanisms and dynamics. Specific topics include: experimental methods in kinetics; introduction to quantum mechanics needed to understand chemical kinetics; the potential energy surface (PES) for a chemical reaction and the effects of different features of the PES on the rate of chemical reactions; the effects of zero point energy and quantum tunneling on reaction rates. [Note 1: This course is cross-listed with CHEM 3231 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: CHEM 3221; any version of CHEM 3231 previously offered with a different title)

**PHYS 3321 (3.00 CR)****ANALOG ELECTRONICS AND SIGNAL PROCESSING**

**Prereq:** PHYS 1551; PHYS 2801; or permission of the Department

This is a course in analog electronics and in analog signal processing, and would be valuable both for those planning to go on in technical careers and for scientists who wish to develop tools for the collection and analysis of data. Topics include impedance matching considerations, semiconductor physics, pn junction diodes, AC circuit analysis, passive filter designs, DC power supply construction including regulation, junction and field effect transistors and transistor amplifier circuits, operational amplifiers, active filter designs, signal conditioning circuits such as Schmitt trigger, modulation and demodulation, noise (sources, frequency characteristics, and control measures), integrating sensors and electronics, practical issues in electronics, and an introduction to the photonic transition. (Format: Lecture 3 Hours, Laboratory 3 Hours)



**PHYS 3361 (3.00 CR)****DIGITAL SIGNAL PROCESSING AND ELECTRONICS**

**Prereq:** COMP 1631; PHYS 1551; or permission of the Department

This course introduces students to both digital electronic circuits and digital signal processing, and would be valuable both for those planning to go on in technical careers in computer science or in physics, and for scientists who wish to develop tools for the collection and analysis of data. Topics to be covered include digital logic gates, Boolean algebra, counting circuits, digital signal conditioning, sampling considerations such as the Nyquist criterion, analog to digital and digital to analog conversion, Fourier Transform theory and application as FFT, correlation and convolution, digital filtering using finite impulse response and infinite impulse response circuits including the ztransform and filter design, and digital image processing including two dimensional FFT techniques, microprocessors, microcontrollers and digital signal processing integrated circuits. [Note 1: This course is cross-listed with COMP 3361 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours, Laboratory 3 Hours)

**PHYS 3451 (3.00 CR)****METHODS OF MATHEMATICAL PHYSICS**

**Prereq:** MATH 2111; 3 credits from MATH 2121, PHYS 2251; or permission of the Department

This course provides students with a selection of mathematical skills needed in more advanced physics courses. It introduces frequently utilized mathematical methods in theoretical physics in close connection with physics applications. Topics include vector and tensor analysis, use of special functions, operators and eigenvalue problems. Fourier analysis, and complex variable techniques. [Note 1: This course is cross-listed with MATH 3451 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours, Laboratory 3 Hours)

**PHYS 3581 (3.00 CR)****MEDICAL PHYSICS**

**Prereq:** PHYS 1551; or permission of the Department

This course considers fundamental concepts of ionizing radiation, diagnostic applications of medical physics, and therapeutic applications of medical physics. Diagnostic topics include x-rays, computed tomography, magnetic resonance imaging, positron emission tomography, and nuclear medicine. Therapeutic topics include radiation generators, absorbed dose calculations, dose measurement, and brachytherapy. [Note 1: This course is intended both for physics students who are considering a career in medical physics or in the field of medicine, and for students in other programs with similar interests.] (Format: Integrated Lecture and Laboratory 3 Hours)

**PHYS 3701 (3.00 CR)****THERMODYNAMICS**

**Prereq:** PHYS 2801; MATH 2111; or permission of the Department

The objective of the course is to develop a clear and broad understanding of the First and Second Law of Thermodynamics, with application to a wide range of problems. Topics include: the general energy equation, First Law, Second Law, entropy, limiting-cycle efficiencies, irreversibility and availability, steam power plant, refrigeration and gas engine applications. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**PHYS 3751 (3.00 CR)****ENERGY PRODUCTION AND THE ENVIRONMENT**

**Prereq:** PHYS 1551; CHEM 1021; or permission of the Department

This course examines different aspects of energy harvesting, storage, and transmission with particular emphasis on the environmental impacts, sustainability, and development of renewable energy resources. It also introduces modern technologies based on the development of novel materials. Specific technologies and topics may include: wind power, photovoltaic generation, solar energy, nuclear fission, and fusion, hydroelectric, combustion based fuel generation, tidal energy and fuel cells. [Note 1: This course is cross-listed with CHEM 3751 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: Any version of PHYS 3751 previously offered with a different title)

**PHYS 3811 (3.00 CR)****MODERN PHYSICS**

**Prereq:** PHYS 2251; or permission of the Department

This course considers the two major revolutionary ideas of modern physics, quantum mechanics and special relativity. It considers Lorentz transformations, length contraction and time dilation, relativistic mass and momentum, including the fourvector relativistic notation. It also examines evidence for quantization along with early models for atoms and discusses De Broglie's hypothesis for the matter wave. Other topics include the Schrodinger equation and its solutions for some usual systems. The course ends with a look at the three dimensional systems and a discussion of angular momentum in quantum mechanics. (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: Any version of PHYS 3811 previously offered with a different title)

**PHYS 3821 (3.00 CR)****QUANTUM MECHANICS**

**Prereq:** PHYS 3811; MATH/PHYS 3451; or permission of the Department

This course is an introduction to formal quantum mechanics: the matrix formulation, harmonic oscillator, perturbation theory, two-state systems, multiparticle systems, and an introduction to the general theory of angular momentum. (Format: Lecture 3 Hours) (Exclusion: Any version of PHYS 3821 previously offered with a different title)

**PHYS 3991 (3.00 CR)****SPECIAL TOPIC IN PHYSICS**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for PHYS 3991 more than once, provided the subject matter differs.] (Format: Variable)

**PHYS 4101 (3.00 CR)**  
**ELECTROMAGNETIC THEORY**

**Prereq:** PHYS 3101; 3 credits from PHYS 2251, MATH 2121; or permission of the Department

An advanced treatment of static and time-dependent electric and magnetic fields in materials. Particular attention will be given to wave solutions of Maxwell's equations for spatial dependent media such as wave guides. (Format: Lecture 3 Hours)

**PHYS 4201 (3.00 CR)**  
**SOLID STATE PHYSICS**

**Prereq:** PHYS 2251; or permission of the Department

This course studies the various quantized models used to describe the thermal, electrical, optical and electromagnetic properties of solids. It also analyses conductors, semi-conductors and insulators. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**PHYS 4311 (3.00 CR)**  
**MODERN OPTICS**

**Prereq:** PHYS 2251; PHYS 2801; PHYS 3101; or permission of the Department

This course provides an advanced treatment of a number of topics in modern optics with particular emphasis on topics of industrial and research importance. A brief treatment of geometric optics will concentrate on the design of optical systems. Topics in physical optics may include dispersion in materials, production and properties of polarized light, interference, diffraction in the Fresnel and Fraunhofer limits, Fourier optics, holography and an introduction to quantum optics. Applications of this theoretical background will be made in such areas as fibre-optic transmission, photonic devices, thin film coatings, and electrochromic devices. There will also be some considerations of electro-optical devices such as lasers, charge coupled device detectors, image intensifiers and photodiodes. (Format: Lecture 3 Hours, Laboratory 3 Hours) (Exclusion: PHYS 4401)

**PHYS 4411 (3.00 CR)**  
**CLASSICAL MECHANICS AND RELATIVITY**

**Prereq:** PHYS 3811; MATH/PHYS 3451; or permission of the Department

This course covers three-dimensional dynamics of both particles and rigid bodies using various coordinate systems. The course focuses on an introduction to Lagrangian and Hamiltonian formalisms, followed by application of these approaches to problems in constrained motion. Other topics covered include motion in resistive fluids, planetary orbits, motion in accelerated reference frames and the inertia tensor. The latter part of the course provides an introduction to general relativity including spacetime invariants, metric and metric tensor, the field equations and tests of general relativity. (Format: Integrated Lecture/Laboratory, 6 Hours) (Exclusion: Any version of PHYS 4411 previously offered with a different title)

**PHYS 4831 (3.00 CR)**  
**ADVANCED QUANTUM MECHANICS**

**Prereq:** CHEM 3231; or 6 credits from PHYS 3821, MATH 2221; or permission of the Department

This course extends the study of principles of quantum mechanics, comparing properties of continuous and discrete representations. It also develops time-independent perturbation theory for first order, second order, and degenerate cases and treats small perturbations through direct diagonalization of large matrices. This course examines variational principle, central force problems, elements of scattering theory, and the addition of quantized angular momenta. The course concludes with applications of quantum mechanics in molecules, aspects of relativistic quantum mechanics, time dependence in quantum and quantum statistics. [Note 1: This course is cross-listed with CHEM 4831 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours) (Exclusion: Any version of PHYS 4831 previously offered with a different title)

**PHYS 4851 (3.00 CR)**  
**NUCLEI AND FUNDAMENTAL PARTICLES**

**Prereq:** PHYS 3821; or permission of the Department

This is an introductory course in nuclear theory and particle physics and discusses nuclear energy levels and spectra, scattering experiments, symmetry and conservation principles, quantum electrodynamics, and the weak and strong interactions. (Format: Lecture 3 Hours)

**PHYS 4911 (3.00 CR)**  
**CURRENT TOPICS IN PHYSICS**

**Prereq:** PHYS 3811; or permission of the Department

This course will introduce students to current topics and trends in physics which are not represented in other courses in the curriculum. This will be a seminar format course with sessions led by students, faculty and guest speakers. A key part of the course will be development of skills for identification and critical evaluation of primary literature in physics. (Format: Seminar)

**PHYS 4950 (6.00 CR)**  
**INDEPENDENT STUDY IN PHYSICS**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for PHYS 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**PHYS 4951 (3.00 CR)  
INDEPENDENT STUDY IN PHYSICS**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for PHYS 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**PHYS 4990 (6.00 CR)  
HONOURS THESIS**

Normally, a student electing this course is expected to accomplish work equivalent to any fourth year course. Students are encouraged, but not required, to work on the project in the Department during the summer immediately preceding the senior year. The topic often involves experimental work, but must have a theoretical component. (Format: Independent Study/Thesis)

**PHYS 4991 (3.00 CR)  
SPECIAL TOPIC IN PHYSICS**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for PHYS 4991 more than once, provided the subject matter differs.] (Format: Variable)

## POLITICS AND INTERNATIONAL RELATIONS

The Politics and International Relations Department offers two degree programs: a B.A. in Political Science and a B.A. in International Relations.

The Political Science BA program is designed for students who are interested in the study of politics. The study of politics is concerned with the nature and workings of power, state, and government; the rights and duties of citizenship; the limits and possibilities of collective political action; and the social, economic, and cultural formations that shape the life of the political community. The scope of inquiry is local, national, and international; it includes the empirical analysis of individuals, groups, institutions, and processes as well as the investigation of long-standing philosophical questions concerning human nature, freedom, democracy, and justice.

The Political Science program is organized into four main subfields: Canadian Politics, Comparative Politics, International Politics, and Political Theory. The program offers students the opportunity to gain a strong foundation in all four subfields and to combine empirical, practical, and theoretical approaches in each year of study. In addition to the Canadian Politics subfield, students can take specialized area courses in Africa, the United States, Europe, and the Middle East. Political Science students who seek a more intensive concentration in one particular subfield can integrate courses from other programs in Canadian Studies, International Relations, History, and Philosophy.

The International Relations BA program is designed for students who are interested in an inter-disciplinary approach to international and global studies. International and global studies are concerned with the interconnections between state as well as non-state organizations and actors, the globalizing effects of economic, social, technological, environmental, military, and political processes, and with emerging issues of justice, responsibility, and human well-being that are international and global in scope.

The International Relations program operates as an inter- and multi-disciplinary degree program in which core as well as elective courses are drawn from a range of disciplines such as political science, history, modern languages and literatures, sociology, anthropology, economics, geography, environmental studies, and women's and gender studies. The program provides students with a broad range of intellectual and critical skills for analyzing the interactions between political and economic systems, cultural norms, environmental dynamics, and hierarchies of power. A university-level language requirement anchors the program. To supplement their coursework students are encouraged to gain international experience by studying or working abroad or by doing international work in Canada.

Political Science 1001: Foundations of Politics is the normal prerequisite for all second year Political Science courses and for the second year International Relations course. Students should consult their program advisor in Political Science or International Relations for additional information.

### Interdisciplinary B.A. Program

**MAJOR in International Relations is 60 credits as follows:**

**Core (42 credits as follows):**

6 from POLS 1001 and INLR/POLS 2301

- 3 from POLS at the 2000 level
- 3 from the POLS 3300 series
- 9 from INLR at the 3000 or 4000 level
- 6 from ECON 1001, 1011
- 3 from ECON 3301, 3501, 3801, 3901, 3921, 4531, 4551
- 12 from FREN 1651, 1701, 1711, 2401, 2501, 2601, 3101, 3111, 3131; or from GERM 1001, 1011, 2001, 2011, 3001, 3401, 3501; or from JAPA 1001, 1011, 2001, 2011; or from SPAN 1101, 1111, 2101, 2111, 3101, 3111, 3060

#### Optional Streams (18 credits)

- 18 Choose 9 credits from each of two of the following streams:
- ANTH 3021, 3031, 3101, 3401, 3531, 3621, 3831, 3841, 3851, 3861, 3871, 4721
  - ECON 3301, 3501, 3801, 3901, 3921, 4531, 4551
  - ENGL 3751, 3761, 3771, 3781, 3921, 4941
  - GENV 3101, 3201, 3321, 4101, 4111, 4211, 4301, 4811, 4821
  - HIST 3001, 3021, 3031, 3121, 3141, 3161, 3231, 3241, 3301, 3311, 3321, 3331, 3381, 3461, 3721, 3761, 4241, 4251, 4271, 4300, 4321, 4401, 4701
  - POLS 3011, 3200, 3211, 3221, 3231, 3301, 3311, 3321, 3331, 3341, 3351, 4200, 4211, 4300, 4310, 4321
  - RELG 3001, 3101, 3301, 3311, 3411, 3501, 3601, 3701, 3811, 3891, 3911, 3921, 3941, 3981, 4401, 4411, 4421, 4611, 4821
  - SOCI 3431, 3541, 3551, 3711, 4501, 4511, 4551, 4561

#### Note:

1. Students are responsible for ensuring that they have prerequisites for third and fourth year courses in the elective streams.
2. A student may choose to include up to 6 credits at the 3/4000 level not explicitly included in any of the Elective Streams provided prior approval is granted by the Program Advisor.
3. Students may substitute university-level courses in another language approved by the International Relations Program Advisor.
4. Students who complete this Major may not complete a Minor in International Politics.

#### HONOURS in International Relations is 72 credits as follows:

- 60 credits as in the Major, plus
- 6 from the 4000 level in one of the elective streams chosen for the Major
- 6 from INLR at the 4000 level

#### MINOR in International Politics is 24 credits earned as follows:

- 3 from POLS 1001
- 3 from POLS 2301
- 3 from POLS at the 2000 level
- 6 from one of FREN/GERM/JAPA/SPAN (as listed in the IR major) or from ECON 1001 and 1011
- 9 from any POLS 33/4300 series

## Disciplinary B.A. Programs

#### MINOR in Political Science is 24 credits earned as follows:

- 3 from POLS 1001
- 6-12 from Political Science at the 2000 level
- 9-15 from Political Science 3000/4000 level

**Note:** At least 3 credits in the minor must be taken from two of the four sub-disciplines in Political Science corresponding with the series numbers for Political Theory (20/30/40), Canadian Politics (21/31/41), Comparative Politics (22/32/42) and International Politics (23/33/43)

#### MAJOR in Political Science is 60 credits earned as follows:

- 3 from POLS 1001
- 39 from Political Science 2/3/4000 level, 6 to 9 of these credits may be taken at the 2000 level. At least three credits at the 3/4000 level must be taken from each of the four sub-disciplines in Political Science corresponding with the series numbers for Political Theory (30/40), Canadian Politics (31/41), Comparative Politics (32/42) and International Politics (33/43)
- 18 credits from complementary courses in Arts & Letters, Humanities and Social Sciences, chosen in consultation with the Program Advisor

#### HONOURS (Course Option) in Political Science is 72 credits earned as follows:

- 3 from POLS 1001
- 57 credits from Political Science 2/3/4000 level. At least six credits at the 3/4000 level must be taken from each of the four sub-fields in Political Science (corresponding with the series numbers for Political Theory (30/40), Canadian Politics (31/41) Comparative Politics (32/42), and International Politics (33/43)
- 12 credits from complementary courses in Arts & Letters, Humanities and Social Sciences, chosen in consultation with the Program Advisor

#### HONOURS (Thesis Option) in Political Science is 72 credits earned as follows:

- 3 from POLS 1001
- 51 credits from Political Science 2/3/4000 level. At least six credits at the 3/4000 level must be taken from each of the four sub-fields in Political Science (corresponding with the series numbers for Political Theory (30/40), Canadian Politics (31/41) Comparative Politics (32/42), and International Politics (33/43)
- 6 credits from Political Science 4990
- 12 credits from complementary courses in Arts & Letters, Humanities and Social Sciences, chosen in consultation with the Program Advisor

## POLITICS AND INTERNATIONAL RELATIONS COURSES

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following course can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees: POLS 1001

### INLR COURSES

#### INLR 1991 (3.00 CR) SPECIAL TOPIC IN INTERNATIONAL RELATIONS

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for INLR 1991 more than once, provided the subject matter differs.] (Format: Variable)

#### INLR 2301 (3.00 CR) INTRODUCTION TO INTERNATIONAL RELATIONS

**Prereq:** POLS 1001; or permission of the Department

This course introduces several of the major theories, structures, processes, and issues in international relations. After introducing the current theoretical approaches to the study of global politics, the course addresses a series of topics from among the following: systems of global governance; the concept 'terrorism'; non-state actors in global politics such as corporations, social movements, and non-governmental organizations; human rights and human security; gender and international politics; poverty, 'development', and inequality; and the environment. [Note 1: This course is cross-listed as POLS 2301 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours) (Exclusion: Any version of INLR/POLS 2301 previously offered with a different title)

#### INLR 2991 (3.00 CR) SPECIAL TOPIC IN INTERNATIONAL RELATIONS

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for INLR 2991 more than once, provided the subject matter differs.] (Format: Variable)

#### INLR 3001 (3.00 CR) GENDER AND INTERNATIONAL RELATIONS

**Prereq:** INLR/POLS 2301; or permission of the Department

This course examines the highly gendered nature of international relations. Topics include: the seeming invisibility of women in the study of international affairs and within international decision-making, the existence of differential international "packages of expectations" concerning the roles of men and women, competing dominant and subordinate masculinities and femininities, the struggle for women's empowerment, and the gendered impact of globalization processes. (Format: Lecture 3 Hours)

#### INLR 3201 (3.00 CR) PROBLEMS IN INTERNATIONAL DEVELOPMENT

**Prereq:** INLR/POLS 2301; or permission of the Department

This course focuses on leading issues in international development from an international relations perspective. Format: Lecture 3 Hours)

#### INLR 3301 (3.00 CR) GLOBAL GOVERNANCE

**Prereq:** INLR/POLS 2301; or permission of the Department

This course examines the role of international organizations in International Relations with a focus on the United Nations. It addresses the challenges of multilateral diplomacy in the age of globalization and U.S. supremacy. [Note 1: This course is cross-listed as POLS 3301 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours) (Exclusion: INLR 3101)

#### INLR 3311 (3.00 CR) INTERNATIONAL POLITICAL ECONOMY

**Prereq:** INLR/POLS 2301; or permission of the Department

This course surveys the critical International Political Economy (IPE) tradition in the study of International Relations, from Marx and Polanyi to Cox and Strange. As a critique of realism and liberalism, IPE posits the inseparability of the domestic and international realms, of the political and economic spheres, as well as of state and society. It examines the impact of globalization and environmental change on states in the global order. [Note 1: This course is cross-listed as POLS 3311 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours) (Exclusion: INLR 3401)

#### INLR 3351 (3.00 CR) FOREIGN POLICY ANALYSIS

**Prereq:** 6 credits from POLS at the 2000 level; or permission of the Department

This course introduces key theories in the study of foreign policy-making. It explores the role of individual decision-makers, interest-groups, economics, bureaucratic politics, and regime types. It also examines how constraints and opportunities in the international system shape foreign policy choices. It analyzes foreign policy in the context of both developed and developing states and considers a variety of different foreign policy issues. [Note 1: This course is cross-listed as POLS 3351 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours)

**INLR 3991 (3.00 CR)****SPECIAL TOPIC IN INTERNATIONAL RELATIONS****Prereq:** INLR/POLS 2301; or permission of the Department

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for INLR 3991 more than once, provided the subject matter differs.] (Format: Variable)

**INLR 4101 (3.00 CR)****GLOBAL GOVERNANCE SIMULATION****Prereq:** INLR/POLS 2301; INLR/POLS 3301; enrolment is restricted to Honours students or by permission of the Department

This course engages students in an innovative and intensive simulation of an international conflict or crisis in order to highlight the challenges of international decision-making in multilateral forums. It draws case studies from the United Nations and other international organizations, or from disputes among states and non-state actors. (Format: Lecture 3 Hours)

**INLR 4201 (3.00 CR)****CANADA, GLOBALIZATION, AND INTERNATIONAL DEVELOPMENT****Prereq:** INLR/POLS 2301; 3 credits from INLR at the 3000 level; or permission of the Department

This course critically evaluates the relationships between various Canadian actors and the so-called 'developing' world, historically and in the contemporary period. Through the use of country case studies this course investigates issues involving Canadian overseas development assistance, and the role played by Canadian corporations and non-governmental organizations (NGOs) in selected countries. (Format: Seminar 3 Hours) (Exclusion: Any version of INLR 4701 offered with a similar title)

**INLR 4301 (3.00 CR)****GLOBAL CIVIL SOCIETY****Prereq:** INLR/POLS 2301; 3 credits from INLR at the 3000 level; or permission of the Department

This course engages students in an advanced analysis of the concept Global Civil Society. It begins by exploring various theoretical approaches to understanding and employing this concept and proceeds to analysis of several issues confronted by Global-Civil-Society actors. Such issues may include: the World Social Forum (WSF); the campaign to ban landmines; anti-capitalist organizing; and the question of violence in achieving social change. (Format: Seminar 3 Hours) (Exclusion: Any version of INLR 4701 offered with a similar title)

**INLR 4310 (6.00 CR)****INTERNATIONAL RELATIONS THEORY****Prereq:** 3 credits from POLS or INLR at the 3000 level; or permission of the Department

This course provides an advanced analysis of major theories of International Relations. It may include theories of realism, liberalism, constructivism, Marxism, feminism, poststructuralism, and postcolonialism. [Note 1: This course is cross-listed as POLS 4310 and may therefore count as 3 credits in either discipline.] (Format: Seminar 3 Hours)

**INLR 4321 (3.00 CR)****SECURITY AND DEVELOPMENT IN THE GLOBAL SOUTH****Prereq:** 3 credits from POLS or INLR at the 3000 level; or permission of the Department

This course examines the relationship between political, economic, and social development and security. It studies the security environment of a developing world that faces a unique constellation of security threats created by the presence of weak states, divided societies, political and economic dependency, and the pressures of globalization. It uses the perspective of traditional theories that privilege the security of states and regimes as well as non-traditional theories that focus on human and environmental security. The course also examines potential strategies for coping with the various types of insecurity experienced by developing states and societies. [Note 1: This course is cross-listed as POLS 4321 and may therefore count as 3 credits in either discipline.] (Format: Seminar 3 Hours)

**INLR 4401 (3.00 CR)****AFRICA IN A GLOBAL CONTEXT****Prereq:** INLR/POLS 2301; 3 credits from INLR at the 3000 level; or permission of the Department

This course focuses on the manner in which the African continent is connected to various processes and structures of global politics. Topics may include: the integration of Africa into the global economy; the scramble for oil and gas on the continent; Africa and the 'War on Terror'; the rising role of the Chinese state in Africa; and the role of other major powers such as the United States and France on the continent. (Format: Seminar 3 Hours) (Exclusion: Any version of INLR 4701 offered with a similar title)

**INLR 4950 (6.00 CR)****INDEPENDENT STUDY IN INTERNATIONAL RELATIONS**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for INLR 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**INLR 4951 (3.00 CR)****INDEPENDENT STUDY IN INTERNATIONAL RELATIONS**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for INLR 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**INLR 4990 (6.00 CR)****HONOURS THESIS**

This course comprises independent research and study under the direction of a supervisor approved by the Program Advisor. [Note 1: Permission of the IR Program Advisor and written confirmation from a thesis supervisor submitted to the Program Advisor before March 31 of the year before the thesis is to be undertaken.] (Format: Independent Study/Thesis)

**INLR 4991 (3.00 CR)****SPECIAL TOPIC IN INTERNATIONAL RELATIONS**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for INLR 4991 more than once, provided the subject matter differs.] (Format: Variable)

**POLS COURSES****POLS 1001 (3.00 CR)****FOUNDATIONS OF POLITICS**

This course is an introduction to the foundations of politics through the medium of political theory, Canadian politics, comparative politics, or international politics. (Format: Lecture 3 Hours) (Distribution: Social World-b) (Exclusion: POLS 1000)

**POLS 1991 (3.00 CR)****SPECIAL TOPIC IN POLITICAL SCIENCE**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for POLS 1991 more than once, provided the subject matter differs.] (Format: Variable)

**POLS 2001 (3.00 CR)****DEMOCRATIC THOUGHT**

**Prereq:** POLS 1001; or permission of the Department

This course examines democratic thought from its origins in the ancient polis through to its modern incarnation in the writings of Rousseau, Tocqueville, John Stuart Mill and selected contemporary theorists. It places particular emphasis on the conflict between participatory and elite models of democratic citizenship. (Format: Lecture 3 Hours)(Exclusion: Any version of POLS 2001 previously offered with a different title)

**POLS 2101 (3.00 CR)****CANADIAN GOVERNMENT AND POLITICS**

**Prereq:** POLS 1001; or permission of the Department

This course is a study of the political process in Canada. It presents an overview of the constitution, institutions, and political actors that represent the essential components of Canada's political culture and government. (Format: Lecture 3 Hours)

**POLS 2211 (3.00 CR)****CANADA AND THE WORLD**

**Prereq:** POLS 1001; or permission of the Department

This course is a critical analysis of Canada's place in a rapidly evolving global order. It places particular emphasis on media technology. (Format: Lecture 3 Hours)

**POLS 2221 (3.00 CR)****INTRODUCTION TO COMPARATIVE POLITICS**

**Prereq:** POLS 1001; or permission of the Department

This course introduces the comparative methods and the importance of theory in this sub-field. It examines several country case studies selected from diverse geographical regions throughout the world. Its topics may include contemporary issues such as terrorism, social movements, civil conflict, and democratic transitions. (Format: Lecture 3 Hours)

**POLS 2301 (3.00 CR)****INTRODUCTION TO INTERNATIONAL RELATIONS**

**Prereq:** POLS 1001; or permission of the Department

This course introduces several of the major theories, structures, processes, and issues in international relations. After introducing the current theoretical approaches to the study of global politics, the course addresses a series of topics from among the following: systems of global governance; the concept 'terrorism'; non-state actors in global politics such as corporations, social movements, and non-governmental organizations; human rights and human security; gender and international politics; poverty,'development', and inequality; and the environment.[Note 1: This course is cross-listed as INLR 2301 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours)(Exclusion: Any version of INLR/POLS 2301 previously offered with a different title)

**POLS 2991 (3.00 CR)**  
**SPECIAL TOPIC IN POLITICAL SCIENCE**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for POLS 2991 more than once, provided the subject matter differs.] (Format: Variable)

**POLS 3001 (3.00 CR)**  
**ANCIENT POLITICAL THOUGHT**

**Prereq:** 6 credits from POLS at the 2000 level; or permission of the Department

This course examines the ancient tradition of political thought from Plato, Aristotle, and Augustine through to its eclipse in Machiavelli. It emphasizes the enduring themes of nature, virtue, citizenship, property, religion and the best regime. (Format: Lecture 3 Hours) (Exclusion: Any version of POLS 3001 previously offered with a different title)

**POLS 3011 (3.00 CR)**  
**MODERN POLITICAL THOUGHT**

**Prereq:** 6 credits from POLS at the 2000 level; or permission of the Department

This course examines the modern tradition of political thought from its origins in Hobbes and Locke to its zenith in Rousseau and Marx. It emphasizes the defining problems of freedom, history, property, revolution, and the state. (Format: Lecture 3 Hours) (Exclusion: Any version of POLS 3011 previously offered with a different title)

**POLS 3031 (3.00 CR)**  
**WOMEN AND POLITICS**

**Prereq:** 6 credits from POLS at the 2000 level; or permission of the Department

This course examines the relationship between women and politics. Its topics may include the historical and conceptual roots of the problem of citizenship for women, patterns of women's participation in politics and government, the politics of the women's movement, and women's effects on public policy. (Format: Lecture 3 Hours)

**POLS 3101 (3.00 CR)**  
**POLITICAL LEADERSHIP IN CANADA**

**Prereq:** 6 credits from POLS at the 2000 level; or permission of the Department

This course studies the various public offices in Canada and the individuals who fill them, including the Prime Minister, Provincial premiers, members of parliament, mayors and judges. It emphasizes the opportunities and challenges that each faces in providing political leadership in Canada. (Format: Lecture 3 Hours)

**POLS 3111 (3.00 CR)**  
**CANADIAN FEDERALISM AND INTERGOVERNMENTAL RELATIONS**

**Prereq:** 6 credits from POLS at the 2000 level; or permission of the Department

This course is an examination of the evolution and operation of the Canadian federal system. Its topics may include the concept and meaning of federalism, constitutional reform, fiscal federalism and intergovernmental relations. (Format: Lecture 3 Hours) (Exclusion: Any version of POLS 3111 previously offered with a different title)

**POLS 3141 (3.00 CR)**  
**CANADIAN PUBLIC POLICY**

**Prereq:** 6 credits from POLS at the 2000 level; or permission of the Department

This course introduces students to theories of public policy-making and the policy-making process in Canada. It emphasizes decision-making, policy change, and implementation in exploring connections among actors, ideas, and institutions in various public policy fields including environmental, health, and social policy to reveal patterns of policy change. (Format: Lecture 3 Hours)

**POLS 3151 (3.00 CR)**  
**POLITICAL PARTIES AND ELECTIONS IN CANADA**

**Prereq:** 6 credits from POLS at the 2000 level; or permission of the Department

This course examines how the structure of the Canadian electoral system conditions the role, organization, and development of political parties in Canada as vehicles for political representation. It includes an examination of the voting calculus and the role of the media in elections. (Format: Lecture 3 Hours)

**POLS 3200 (6.00 CR)**  
**EUROPEAN POLITICS**

This course is a comparative analysis of government and politics with particular emphasis on Europe's role in a changing geopolitical order. (Format: Lecture 3 Hours)

**POLS 3211 (3.00 CR)**  
**AMERICAN GOVERNMENT AND POLITICS**

**Prereq:** 6 credits from POLS at the 2000 level; or permission of the Department

This course examines the political process in the United States. It presents an overview of the constitution, institutions, and political actors that represent the essential components of American political culture and government. It may also focus on one or more important policy areas. (Format: Lecture 3 Hours) (Exclusion: POLS 2201)

**POLS 3221 (3.00 CR)**  
**AFRICAN POLITICS**

**Prereq:** 6 credits from POLS at the 2000 level; or permission of the Department

This course introduces the study of African politics and development. It examines a number of country case studies and important contemporary issues. Its topics may include critical analysis of colonial and pre-colonial historical contexts, the nature of the post-colonial state in Africa, and the manner in which Africa is integrated into the global economy. (Format: Lecture 3 Hours)



**POLS 3231 (3.00 CR)****COMPARATIVE POLITICS OF THE MIDDLE EAST**

**Prereq:** 6 credits from POLS at the 2000 level; or permission of the Department

This course examines the political dynamics of selected states and societies in the Middle East. It addresses such issues as post-colonial state formation and political development; the political economy of reform; petropolitics; gender; minorities; the effects of regional conflict on domestic politics; the growth of secular and religious opposition movements; and processes of political liberalization and de-liberalization. (Format: Lecture 3 Hours) (Exclusion: POLS 3991 Comparative Politics of the Middle East)

**POLS 3301 (3.00 CR)****GLOBAL GOVERNANCE**

**Prereq:** INLR/POLS 2301; or permission of the Department

This course examines the role of international organizations in International Relations with a focus on the United Nations. It addresses the challenges of multilateral diplomacy in the age of globalization and U.S. supremacy. [Note 1: This course is cross-listed as INLR 3301 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours) (Exclusion: INLR 3101)

**POLS 3311 (3.00 CR)****INTERNATIONAL POLITICAL ECONOMY**

**Prereq:** INLR/POLS 2301; or permission of the Department

This course surveys the critical International Political Economy (IPE) tradition in the study of International Relations, from Marx and Polanyi to Cox and Strange. As a critique of realism and liberalism, IPE posits the inseparability of the domestic and international realms, of the political and economic spheres, as well as of state and society. It examines the impact of globalization and environmental change on states in the global order. [Note 1: This course is cross-listed as INLR 3311 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours) (Exclusion: INLR 3401)

**POLS 3321 (3.00 CR)****INTERNATIONAL POLITICS OF THE MIDDLE EAST**

**Prereq:** 6 credits from POLS at the 2000 level; or permission of the Department

This course examines the factors shaping international politics in the Middle East. It considers issues such as war, conflict resolution, regional alliance behaviour, and the relationships between regional states and the great powers, examining them from the perspective of traditional theories of international relations that emphasize balance of power politics, as well non-traditional theories that emphasize political and economic underdevelopment and dependency. (Format: Lecture 3 Hours)(Exclusion: POLS 3991 Middle East Politics; Any version of POLS 3321 previously offered with a different title)

**POLS 3331 (3.00 CR)****AMERICAN FOREIGN POLICY**

**Prereq:** 6 credits from POLS at the 2000 level; or permission of the Department

This course examines American foreign policy during the post-World War II period. The first half of the course introduces key concepts and theories concerning the making of American foreign policy. The second half of the course considers the Post-Cold War security environment and the challenges facing US policy makers in the contemporary environment. (Format: Lecture 3 Hours)

**POLS 3341 (3.00 CR)****SECURITY STUDIES**

**Prereq:** 6 credits from POLS at the 2000 level; or permission of the Department

This course examines strategies for war and peace. The first half of the course focuses on basic military strategies, including attrition, blitzkrieg, and deterrence as well as asymmetric conflict. The second half of the course treats conflict resolution as well as strategies for maintaining peace once it has been achieved. These strategies include humanitarian intervention, balance of power politics, concerts of power, and international institutions. The course focuses on theory but uses case studies to illustrate specific arguments. (Format: Lecture 3 Hours)

**POLS 3351 (3.00 CR)****FOREIGN POLICY ANALYSIS**

**Prereq:** 6 credits from POLS at the 2000 level; or permission of the Department

This course introduces key theories in the study of foreign policy-making. It explores the role of individual decision-makers, interest-groups, economics, bureaucratic politics, and regime types. It also examines how constraints and opportunities in the international system shape foreign policy choices. It analyzes foreign policy in the context of both developed and developing states and considers a variety of different foreign policy issues. [Note 1: This course is cross-listed as INLR 3351 and may therefore count as 3 credits in either discipline.] (Format: Lecture 3 Hours)

**POLS 3991 (3.00 CR)****SPECIAL TOPIC IN POLITICAL SCIENCE**

**Prereq:** POLS 1001; 6 credits from POLS at the 2000 level; or permission of the Department.

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for POLS 3991 more than once, provided the subject matter differs.] (Format: Variable)

**POLS 4000 (6.00 CR)****PROBLEMS IN THE HISTORY OF POLITICAL THOUGHT**

**Prereq:** 3 credits from POLS 3001, 3011; or permission of the Department

This course examines a selected problem in the history of political thought. (Format: Seminar 3 Hours) (Exclusion: Any version of POLS 4000 previously offered with a different title)

**POLS 4001 (3.00 CR)**  
**FEMINIST POLITICAL THOUGHT**

**Prereq:** 3 credits from POLS 3001, 3011, 3031; or permission of the Department

This course examines contemporary feminist political thought with particular emphasis on feminist critiques and reconstructions of traditional concepts such as politics, citizenship, equality, justice, and freedom. (Format: Seminar 3 Hours)

**POLS 4011 (3.00 CR)**  
**LIBERAL DEMOCRACY AND ITS DISCONTENTS**

**Prereq:** Three credits from POLS 3001, 3011; or permission of the Department

This course examines the critical theories of the culture and politics of liberal democracy which have shaped the main currents of modern political thought from the nineteenth century to the present. (Format: Seminar 3 Hours)

**POLS 4121 (3.00 CR)**  
**ENVIRONMENTAL CONFLICTS IN CANADA**

**Prereq:** 3 credits from POLS 3101, 3111, 3141, 3151; or permission of the Department

This course examines transboundary environmental conflicts in Canada. It investigates conceptual and regulatory issues such as the scale and heterogeneity of conflicts, communities affected, collaboration and coordination, privatization, and government management. Topics may include: water scarcity and pollution, invasive species, climate change, wildlife management, energy development, and waste management. (Format: Seminar 3 Hours)

**POLS 4141 (3.00 CR)**  
**INTEREST GROUPS AND SOCIAL MOVEMENTS IN CANADA**

**Prereq:** 3 credits from POLS 3101, 3111, 3141, 3151; or permission of the Department

This course examines interest groups and social movements primarily from a Canadian perspective. It studies the development and role of interest groups and social movements both in the past and present. (Format: Seminar 3 Hours)

**POLS 4161 (3.00 CR)**  
**DISABILITY POLITICS & POLICY IN CANADA**

**Prereq:** 3 credits from POLS 3101, 3111, 3141, 3151; or permission of the Department

This course examines the evolution of disability politics and policy in Canada. It emphasizes conceptualizations of disability, political participation, advocacy, and rights-based approaches to changes in public policy. (Format: Seminar 3 Hours) (Exclusion: POLS 3991 Disability Politics & Policy)

**POLS 4200 (6.00 CR)**  
**POLITICAL AND CULTURAL CHANGE: A COMPARATIVE ANALYSIS OF NORTH AMERICA AND EUROPE**

A comparative analysis of the impact of political change on the broader culture, as expressed in literature, cinema, architecture and communications media. Examples will be taken from North American and European experience. (Format: Lecture/Seminar 3 Hours)

**POLS 4211 (3.00 CR)**  
**POLITICS AND LITERATURE**

**Prereq:** 3 credits from POLS at the 2/3000 level; or permission of the Department

An analysis of the relationship between literature and social change. Selected works of a number of recent Latin American and Central European writers will be examined. (Format: Lecture/Seminar 3 Hours)

**POLS 4300 (6.00 CR)**  
**CANADIAN FOREIGN POLICY**

**Prereq:** POLS 3310; or permission of the Department

A study of the major themes and issues in post-1945 Canadian Foreign policy, with a focus on the concept of internationalism as the foundation for Canada's post-war approaches to international order and security. (Format: Lecture 3 Hours)

**POLS 4310 (6.00 CR)**  
**INTERNATIONAL RELATIONS THEORY**

**Prereq:** 3 credits from POLS or INLR at the 3000 level; or permission of the Department

This course provides an advanced analysis of major theories of International Relations. It may include theories of realism, liberalism, constructivism, Marxism, feminism, poststructuralism, and postcolonialism. [Note 1: This course is cross-listed as INLR 4310 and may therefore count as 3 credits in either discipline.] (Format: Seminar 3 Hours)

**POLS 4321 (3.00 CR)**  
**SECURITY AND DEVELOPMENT IN THE GLOBAL SOUTH**

**Prereq:** 3 credits from POLS or INLR at the 3000 level; or permission of the Department

This course examines the relationship between political, economic, and social development and security. It studies the security environment of a developing world that faces a unique constellation of security threats created by the presence of weak states, divided societies, political and economic dependency, and the pressures of globalization. It uses the perspective of traditional theories that privilege the security of states and regimes as well as non-traditional theories that focus on human and environmental security. The course also examines potential strategies for coping with the various types of insecurity experienced by developing states and societies. [Note 1: This course is cross-listed as INLR 4321 and may therefore count as 3 credits in either discipline.] (Format: Seminar 3 Hours)

**POLS 4950 (6.00 CR)**  
**INDEPENDENT STUDY IN POLITICAL SCIENCE**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for POLS 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**POLS 4951 (3.00 CR)  
INDEPENDENT STUDY IN POLITICAL SCIENCE**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for POLS 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**POLS 4990 (6.00 CR)  
HONOURS THESIS**

The honours thesis involves independent research and study under the direction of a supervisor approved by the Department. [Note 1: Permission of the Program Advisor and written confirmation from a thesis supervisor submitted to the Program Advisor before March 31 of the year before the thesis is to be undertaken.] (Format: Independent Study/Thesis)

**POLS 4991 (3.00 CR)  
SPECIAL TOPIC IN POLITICAL SCIENCE**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for POLS 4991 more than once, provided the subject matter differs.] (Format: Variable)

## PSYCHOLOGY

Psychology is the scientific study of mind and behaviour. It is a biological, a social, and a cognitive science. As a biological science, it studies the physiological mechanisms and evolutionary origins of mental and behavioural phenomena. As a social science, it studies personality and interpersonal relations and their bases in social interaction, cognition and emotion. As a cognitive science, it studies such processes as sensation and perception, abstract thinking, reasoning, language, and memory. Developmental psychology combines all three aspects in taking for its subject matter the total life span. The objectives of psychological study are to understand human nature, for its own sake, and to provide an increasingly reliable basis for the application of psychological principles to education, social policy, and medical treatment.

Psychologists use a variety of methods appropriate to the questions they study. Experimentation, laboratory techniques, observational procedures, measurement, and statistical methods are among the important tools of the psychologist. Whatever their methods, psychologists share in their research a commitment to careful and systematic observation aimed at the formulation of general principles. In recent years psychology has become increasingly interdisciplinary. Psychologists work with biologists, geneticists, medical researchers, physiologists, and biochemists on those questions of a biological nature. They work with sociologists, criminologists, anthropologists, and economists, among others, on questions relating to social behaviour. Finally, they work with mathematicians, computer scientists, philosophers, linguists, and others on questions involving the nature and origins of knowledge.

### Disciplinary B.A. and B.Sc. Programs

**B.A. & B.Sc. MINOR in Psychology is 24 credits earned as follows:**

- 6 from PSYC 1001, 1011
- 6 from PSYC 2101, 2201, 2301
- 12 from Psychology, including 6 from the 3/4000 level, chosen in consultation with the Program Advisor

**B.A. MAJOR in Psychology is 60 credits, including 42 credits from Psychology earned as follows:**

- 6 from PSYC 1001, 1011
- 6 from PSYC 2001, 2011
- 6 from PSYC 2101, 2201, 2301
- 12 from Psychology at the 3/4000 level, with a maximum of 3 credits from PSYC 4950/51
- 3 from Psychology at the 4000 level, excluding PSYC 4950/51
- 9 from Psychology
- 18 from complementary courses

**Note:** Courses with significant psychology content (for example, PHYS 3581, PHIL 4511) offered by other departments may be approved as psychology credits (to a maximum of 3 credits) with permission of the Psychology Department.

**Note:** A maximum of 9 credits from PSYC 4950/4951 can be taken during the degree, without permission of the Department Head.

**Note:** A maximum of 6 credits from PSYC 4950 and/or 4951 can be used to meet the 42 credit requirement for a Major in Psychology.

### B.Sc. MAJOR in Psychology is 60 credits, including 42 from Psychology earned as follows:

- 6 from PSYC 1001, 1011
- 6 from PSYC 2001, 2011
- 6 from PSYC 2101, 2201, 2301
- 12 from Psychology at the 3/4000 level, with a maximum of 3 credits from PSYC 4950/51
- 3 from Psychology at the 4000 level, excluding PSYC 4950/51
- 9 from Psychology

**Plus,** 18 credits from Science:

- 6 with three from MATH 1111 or MATH 1151, and three other credits from MATH 1121, 1251, 2211, 2221 or COMP 1631
- 3 from PHYS 1041, PHYS 1051, or CHEM 1001
- 3 from BIOL 1001, BIOL 1501, or BIOC 1001
- 6 from complementary science courses (Biochemistry, Biology, Chemistry, Computer Science, Math, Physics, GENS) excluding Psychology.

**Note:** Courses with significant psychology content (for example, PHYS 3521, PHYS 3581, PHIL 4511) offered by other departments may be approved as psychology credits (to a maximum of 3 credits) with permission of the Psychology Department.

**Note:** A maximum of 9 credits from PSYC 4950/4951 can be taken during the degree, without permission of the Department Head.

**Note:** A maximum of 6 credits from PSYC 4950 and/or 4951 can be used to meet the 42 credit requirement for a Major in Psychology.

**Note:** Courses should be selected keeping in mind the B.Sc. requirement of 30 credits from science courses at the 3/4000 level.

### B.A. and B.Sc. HONOURS in Psychology is 78 credits earned as follows:

- 60 credits as in either the B.A. or B.Sc. Major, plus:
- 18 from Psychology which must include 3001, 3901, 4903, 4990, chosen in consultation with the Program Advisor

## PSYCHOLOGY COURSES

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following course can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees: PSYC 1001

### PSYC 1001 (3.00 CR)

#### INTRODUCTION TO PSYCHOLOGY I

This course introduces the concepts, problems, and methods of modern scientific psychology. Topics include neuroanatomy and other aspects of the biological bases of psychological processes, learning, motivation, sensation, perception, aspects of cognition, memory, and language. [Note: PSYC 1001 and 1011 may be taken in either order; neither is a prerequisite to the other.] (Format: Lecture 3 Hours) (Distribution: Natural Science-b)

### PSYC 1011 (3.00 CR)

#### INTRODUCTION TO PSYCHOLOGY II

This course introduces the concepts, problems, and methods of modern scientific psychology. Topics include: attitudes, stereotyping and other aspects of social psychology, developmental psychology, intelligence, aspects of cognition and language, personality, and the psychology of abnormal behaviour. [Note: PSYC 1001 and 1011 may be taken in either order; neither is a prerequisite to the other.] (Format: Lecture 3 Hours)

### PSYC 1991 (3.00 CR)

#### SPECIAL TOPIC IN PSYCHOLOGY

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for PSYC 1991 more than once, provided the subject matter differs.] (Format: Variable)

### PSYC 2001 (3.00 CR)

#### RESEARCH DESIGN AND ANALYSIS I

**Prereq:** Second-year standing; PSYC 1001; PSYC 1011; or permission of the Department

This course considers a range of research strategies, including descriptive, correlational, experimental, and quasi-experimental research designs. Other topics include: the research process, ethics in research, defining and measuring variables, sampling, and writing a research report. This course teaches the process of using descriptive statistics to evaluate the results of carefully planned research (Format: Lecture 3 Hours, Laboratory 1 Hour)

### PSYC 2011 (3.00 CR)

#### RESEARCH DESIGN AND ANALYSIS II

**Prereq:** Second-year standing; PSYC 1001; PSYC 1011; PSYC 2001; or permission of the Department

This course covers the research process from the development of simple and complex research designs to statistical analyses of the data collected. Topics include: analysis of variance, correlation analysis, and nonparametric approaches. It also introduces a statistical software package. (Format: Lecture 3 Hours, Laboratory 1 Hour) (Exclusion: PSYC 2101 Research Design and Analysis)

**PSYC 2101 (3.00 CR)****BIOPSYCHOLOGY**

**Prereq:** Second-year standing; PSYC 1001; PSYC 1011; or permission of the Department

This course introduces the neural bases of behaviour. Topics include: the role of evolution and genetics in the development of the nervous system, the structure and function of the nervous system, and the biological bases of perception, movement, eating, drinking, sleeping and dreaming, sexual behaviour, addiction and reward, and memory. (Format: Lecture 3 Hours, Laboratory 1 Hour) (Exclusion: PSYC 2051)

**PSYC 2121 (3.00 CR)****BEHAVIOUR MODIFICATION**

**Prereq:** Second-year standing; PSYC 1001; PSYC 1011; or permission of the Department.

This course discusses the basic concepts and theories involved in the psychology of learning, the analysis of behaviour and behavioural assessment in the context of real life problems. Topics include: applications of behaviour modification and behaviour therapy in terms of problems associated with parenting, development of social skills, education, disabilities, and health. (Format: Lecture 3 Hours) (Exclusion: PSYC 2011 Learning and Memory)

**PSYC 2201 (3.00 CR)****COGNITIVE PROCESSES**

**Prereq:** Second-year standing; PSYC 1001; PSYC 1011; or permission of the Department

This course provides an overview of mental processes and activities used in perceiving, learning, remembering, thinking, and understanding. It offers an opportunity to explore current information processing models and their applications. Topics include: attention, memory, language, neurocognition, and thinking and reasoning. (Format: Lecture 3 Hours, Laboratory 1 Hour) (Exclusion: PSYC 3021 Cognition)

**PSYC 2301 (3.00 CR)****SOCIAL PSYCHOLOGY**

**Prereq:** Second-year standing; PSYC 1001; PSYC 1011; or permission of the Department

This course introduces the field of social psychology. Topics include: social cognition, attitudes, prejudice and discrimination, interpersonal attraction, social influence, helping and aggression, and group processes. (Format: Lecture 3 Hours, Laboratory 1 Hour) (Exclusion: PSYC 3081)

**PSYC 2431 (3.00 CR)****CHILD AND ADOLESCENT DEVELOPMENT**

**Prereq:** Second-year standing; PSYC 1001; PSYC 1011; or permission of the Department

This course is an overview of social, cognitive, and biological development during infancy, childhood, and adolescence. Topics include: the development of perception, memory, emotions, and family relationships; puberty, identity, peer groups, and adolescent sexuality. (Format: Lecture 3 Hours) (Exclusion: PSYC 2401; PSYC 2411)

**PSYC 2601 (3.00 CR)****PSYCHOLOGY OF ABNORMAL BEHAVIOUR**

**Prereq:** Second-year standing; PSYC 1001; PSYC 1011; or permission of the Department

This course presents an overview of psychological disorders: biological and social origins, classification, symptoms, and common treatments. (Format: Lecture 3 Hours) (Exclusion: PSYC 3061)

**PSYC 2611 (3.00 CR)****HEALTH PSYCHOLOGY**

**Prereq:** Second-year standing; PSYC 1001; PSYC 1011; or permission of the Department

This course introduces the field of health psychology, a term that is often used interchangeably with behavioural medicine or medical psychology. The course focuses on the biopsychosocial model of health, specifically on how biological, psychological, and social factors interact to influence health and illness. (Format: Lecture 3 Hours)

**PSYC 2701 (3.00 CR)****PERSONALITY**

**Prereq:** Second-year standing; PSYC 1001; PSYC 1011; or permission of the Department

This course introduces personality as an enduring, organized pattern of thinking, feeling, and behaving. The course examines key theories and broader perspectives on personality, as well as the measurement of personality from those perspectives. Examples may include dispositional, biological, psychoanalytic, learning, and phenomenological perspectives. (Format: Lecture 3 Hours) (Exclusion: PSYC 3071)

**PSYC 2991 (3.00 CR)****SPECIAL TOPIC IN PSYCHOLOGY**

**Prereq:** Second-year standing; PSYC 1001; PSYC 1011; or permission of the Department

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for PSYC 2991 more than once, provided the subject matter differs.] (Format: Variable)

**PSYC 3001 (3.00 CR)****ADVANCED DESIGN AND ANALYSIS**

**Prereq:** Third-year standing; PSYC 1001; PSYC 1011; PSYC 2001; PSYC 2011; or permission of the Department

This course provides advanced analytic and design tools necessary to interpret the research of others and to conduct original research. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**PSYC 3021 (3.00 CR)**  
**PSYCHOLOGICAL MEASUREMENT AND INDIVIDUAL DIFFERENCES**

**Prereq:** Third-year standing; PSYC 1001; PSYC 1011; 6 credits from PSYC at the 2000 level; 6 credits from PSYC 2001, 2011 recommended; or permission of the Department

This course examines the history and principles of psychological testing. It is concerned with the logic of test construction and the problems associated with attempts to quantify and assess human abilities and characteristics. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**PSYC 3101 (3.00 CR)**  
**HUMAN NEUROPSYCHOLOGY**

**Prereq:** Third-year standing; PSYC 2101; 3 credits from PSYC at the 2000 level; or permission of the Department

This course examines the structure and functions of the cerebral cortex. Topics include cerebral asymmetry in function, the anatomy and functions of the frontal, parietal, temporal, and occipital lobes, and the neural substrates of higher functions such as memory, language, emotion, spatial behaviour, and attention. [Note 1: PSYC 2001 and 2011 strongly recommended as additional prerequisites.] (Format: Lecture 3 Hours, Laboratory 1.5 Hour)

**PSYC 3111 (3.00 CR)**  
**CONDITIONING**

**Prereq:** Third-year standing; PSYC 1001; PSYC 1011; 6 credits from PSYC at the 2000 level; or permission of the Department

This course examines the role of associative processes in both human and non-human learning. Topics include: habituation, classical conditioning, operant conditioning, and observational learning. [Note 1: PSYC 2001 and 2011 strongly recommended as additional prerequisites.] (Exclusion: PSYC 3011 Conditioning) (Format: Lecture 3 Hours, Laboratory 3 Hours)

**PSYC 3151 (3.00 CR)**  
**DRUGS AND BEHAVIOUR**

**Prereq:** Third-year standing; PSYC 1001; PSYC 1011; 6 credits from PSYC at the 2000 level; or permission of the Department

This course explores principles of pharmacology, neural transmission, behavioural assessment of drug effects, theories of addiction, tolerance, and dependence as a conceptual introduction to behavioural pharmacology. It discusses specific psychopharmacologic issues pertaining to alcohol, benzodiazepines, barbiturates, opiates, psychomotor stimulants, caffeine, tobacco, hallucinogens, and antipsychotic drugs. (Format: Lecture 3 Hours) (Exclusion: PSYC 2111)

**PSYC 3201 (3.00 CR)**  
**MEMORY**

**Prereq:** Third-year standing; PSYC 1001; PSYC 1011; 6 credits from PSYC at the 2000 level; or permission of the Department

This course examines contemporary research and theories of human memory. Topics include: short-term and long-term memory, forgetting, implicit memory, amnesia, memory and aging, reconstructive processes, mnemonics, and imagery. (Format: Lecture 3 Hours, Laboratory 1.5 Hours)

**PSYC 3211 (3.00 CR)**  
**SENSATION AND PERCEPTION**

**Prereq:** Third-year standing; PSYC 1001; 1011; PSYC 2101; 3 additional credits from PSYC at the 2000 level; or permission of the Department

This course examines how physical energy is translated into sensory information and processed into our perceptions of the world around us. It explores the psychophysics and neural coding of each of our senses as well as the higher order processes of attention and cognition. (Format: Lecture 3 Hours, Laboratory 1.5 Hour) (Exclusion: PSYC 3121 Sensation and Perception)

**PSYC 3221 (3.00 CR)**  
**PSYCHOLOGY OF LANGUAGE**

**Prereq:** Third-year standing; PSYC 1001; PSYC 1011; 6 credits from PSYC at the 2000 level; or permission of the Department

This course describes our present knowledge concerning the mechanisms underlying the production, comprehension, and use of language. (Format: Lecture 3 Hours, Laboratory 1.5 Hours) (Exclusion: PSYC 3141; any version of PSYC 3221 previously offered with a different title)

**PSYC 3241 (3.00 CR)**  
**FORENSIC PSYCHOLOGY**

**Prereq:** Third-year standing; PSYC 1001; PSYC 1011; 6 credits from PSYC at the 2000 level; or permission of the Department

This course examines the relationship between psychology and the legal system. Topics include: police psychology, eyewitness testimony, jury decision-making, risk-assessment in legal situations, violent offenders, and psychopaths. (Format: Lecture 3 Hours, Laboratory 1.5 Hours) (Exclusion: PSYC 3991 Forensic Psychology)

**PSYC 3301 (3.00 CR)**  
**INTERPERSONAL RELATIONS**

**Prereq:** Third-year standing; PSYC 1001; PSYC 1011; 6 credits from PSYC at the 2000 level; or permission of the Department

This course examines aspects of interpersonal attraction and interpersonal relationships. Topics include: attachment and affiliation, interpersonal attraction, developing and maintaining close relationships, friendship and love, relationship problems, and relationship termination. (Format: Lecture 3 Hours)

**PSYC 3311 (3.00 CR)**  
**HUMAN SEXUALITY**

**Prereq:** Third-year standing; PSYC 1001; PSYC 1011; 6 credits from PSYC at the 2000 level; or a declared Minor in Women's and Gender Studies; or permission of the Department

This course examines human sexuality from a multidisciplinary perspective. Topics include physiology and anatomy, sexual behavior, sexual orientation, reproduction, sexual health, and sexual problems and solutions. (Format: Lecture 3 Hours)

**PSYC 3331 (3.00 CR)****DEATH AND DYING**

**Prereq:** Third-year standing; PSYC 1001; PSYC 1011; 6 credits from PSYC at the 2000 level; or permission of the Department

This course examines psychological perspectives on issues related to death, dying, and bereavement. Topics include hospice palliative care, end-of-life decisions, suicide, euthanasia, funeral practices, dealing with grief and bereavement, and cross-cultural perspectives on and attitudes toward death and dying. (Format: Lecture 3 Hours)

**PSYC 3411 (3.00 CR)****COGNITIVE DEVELOPMENT**

**Prereq:** Third-year standing; 3 credits from PSYC 2401, 2431; 3 credits from PSYC at the 2000 level; or permission of the Department

This course examines theories and research methods of developmental psychology, with a focus on research and findings in cognitive development in infancy, childhood and adolescence. It includes theories of how infants and children discover and understand the world, remember information, and solve problems. (Format: Lecture 3 Hours, Laboratory 3 Hours)

**PSYC 3421 (3.00 CR)****ADULTHOOD AND AGING**

**Prereq:** Third-year standing; 6 credits from PSYC at the 2000 level, or permission of the Department

This course is an overview of social, cognitive, and biological development during early, middle, and especially late adulthood. Topics include: age-related changes in the central nervous system; dementia; late-life changes in intellectual abilities, memory and sensory processes; and the effects of age on personality and interpersonal relationships. (Format: Lecture 3 Hours) (Exclusion: PSYC 2421)

**PSYC 3511 (3.00 CR)****PSYCHOLOGY OF GENDER**

**Prereq:** Third-year standing; PSYC 1001; PSYC 1011; 6 credits from PSYC at the 2000 level; or a declared Minor in Women's and Gender Studies; or permission of the Department

This course systematically reviews psychological theories and research findings about gender. Topics include biological effects on gender development, gender roles, health and reproduction, personality and social interaction, work, sexuality, gendered violence, and mental health. It also considers the ways that race, ethnicity, class, physical ability, sexual orientation, and age modify women's and men's experience. (Format: Lecture 3 Hours) (Exclusion: PSYC 2501; any version of PSYC 3511 previously offered with a different title)

**PSYC 3601 (3.00 CR)****INTRODUCTION TO CLINICAL PSYCHOLOGY**

**Prereq:** Third-year standing; PSYC 2601; 6 credits from PSYC at the 2000 level; or permission of the Department

This course introduces the main theoretical perspectives, strategies of diagnosis and assessment, and types of intervention used in clinical psychology. Lectures focus on developing a framework for conceptualizing psychological problems, on the basics of interviewing and using psychological tests, and on different types of clinical treatments. It also explores specialized areas of clinical psychology such as child psychology, clinical neuropsychology, and forensic psychology. (Format: Lecture 3 Hours) (Exclusion: PSYC 3501 Introduction to Clinical Psychology)

**PSYC 3801 (3.00 CR)****EDUCATIONAL PSYCHOLOGY**

**Prereq:** Third-year standing; PSYC 1001; PSYC 1011; 6 credits from PSYC at the 2000 level; or permission of the Department

This course introduces selected principles, research findings, and theories of psychology considered relevant to teaching and learning. Topics include: human development and learning, including developmental changes; motivational and learning processes; exceptionalities and other individual differences; dynamics of social groups; and the evaluation of teaching and learning. (Format: Lecture 3 Hours)

**PSYC 3821 (3.00 CR)****CHILD PSYCHOPATHOLOGY**

**Prereq:** Third-year standing; PSYC 2431; 6 credits from PSYC at the 2000 level; or permission of the Department

This course examines prevalence, aetiology, diagnosis, and treatment of the major psychological disorders of childhood including: anxiety; mood and conduct disorders; ADHD; autism; and language and learning disorders. The course focuses on examining the current state of research in childhood psychopathology. (Format: Lecture 3 Hours, Laboratory 1 Hour) (Exclusion: PSYC 3501 Child Psychopathology)

**PSYC 3901 (3.00 CR)****HISTORY OF PSYCHOLOGY**

**Prereq:** Third-year standing; 15 credits from PSYC at the 2/3000 level; or permission of the Department

This course places the problems and concepts of contemporary psychology in a historical context by surveying the philosophical roots of psychological research and clinical practice. It covers the development of psychology from antiquity to the present. (Format: Lecture 3 Hours)

**PSYC 3991 (3.00 CR)****SPECIAL TOPIC IN PSYCHOLOGY**

**Prereq:** Third-year standing; PSYC 1001; PSYC 1011; 6 credits from PSYC at the 2000 level

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for PSYC 3991 more than once, provided the subject matter differs.] (Format: Variable)

**PSYC 4101 (3.00 CR)****ADVANCED TOPICS IN BEHAVIOURAL NEUROSCIENCE**

**Prereq:** Third-year standing; PSYC 2101; 6 credits from PSYC at the 3000 level; or permission of the Department

This course examines the relation between brain and behaviour. (Format: Seminar 3 Hours)

**PSYC 4111 (3.00 CR)****ADVANCED TOPICS IN CONDITIONING**

**Prereq:** Third-year standing; PSYC 3111; 6 credits from PSYC at the 3000 level; or permission of the Department

This course examines Pavlovian conditioning, operant conditioning, and other forms of learning in animals and people. (Format: Seminar 3 Hours)

**PSYC 4201 (3.00 CR)****ADVANCED TOPICS IN COGNITION**

**Prereq:** Third-year standing; PSYC 2201; 6 credits from PSYC at the 3000 level; or permission of the Department

This course examines subjects of current theoretical interest in the psychology of attention, memory, and thought. (Format: Seminar 3 Hours)

**PSYC 4301 (3.00 CR)****ADVANCED TOPICS IN SOCIAL PSYCHOLOGY**

**Prereq:** Third-year standing; PSYC 2301; 6 credits from PSYC at the 3000 level; or permission of the Department

This course examines selected topics of current theoretical interest in the study of social behaviour. (Format: Seminar 3 Hours)

**PSYC 4311 (3.00 CR)****ADVANCED TOPICS IN SEXUALITY**

**Prereq:** Third-year standing; PSYC 3311; 6 credits from PSYC at the 3000 level; or permission of the Department

This course focuses on topics related to sexuality and sex research and addresses research design and methodology in the field of sex research. (Format: Seminar) (Exclusion: any PSYC 4991 previously offered as an advanced special topic in Sexuality)

**PSYC 4401 (3.00 CR)****ADVANCED TOPICS IN DEVELOPMENTAL PSYCHOLOGY**

**Prereq:** Third-year standing; 3 credits from PSYC 2401, 2411, 2431, 3421; 6 credits from PSYC at the 3000 level; or permission of the Department

This course provides a deeper understanding of the methods and concepts of developmental psychology through intensive treatment of specific research areas. (Format: Seminar 3 Hours)

**PSYC 4411 (3.00 CR)****ADVANCED TOPICS IN ADULTHOOD AND AGING**

**Prereq:** Third-year standing; 3 credits from PSYC 2421, 3421; 6 credits from PSYC at the 3000 level; or permission of the Department

This course examines selected topics of current theoretical and applied interest in the study of adult development and aging. (Format: Seminar 3 Hours)

**PSYC 4421 (3.00 CR)****ADVANCED TOPICS IN SOCIAL DEVELOPMENT**

**Prereq:** Third-year standing; PSYC 2431; 6 credits from PSYC at the 3000 level; or permission of the Department

This course provides a thorough examination of specific topics in social development, for example, attachment, abnormal social development, and emotional development of the child. It focuses on current theoretical and methodological issues in the chosen topic area. (Format: Seminar 3 Hours) (Exclusion: PSYC 4501 Advanced Topics in Social Development)

**PSYC 4601 (3.00 CR)****ADVANCED TOPICS IN PSYCHOPATHOLOGY**

**Prereq:** Third-year standing; PSYC 2601; 6 credits from PSYC at the 3000 level; or permission of the Department

This course presents an in-depth examination of theory and research pertinent to a topic of current interest in the field of Psychopathology. (Format: Seminar 3 Hours)

**PSYC 4611 (3.00 CR)****ADVANCED TOPICS IN HEALTH PSYCHOLOGY**

**Prereq:** Third-year standing; PSYC 2611; 6 credits from PSYC at the 3000 level; or permission of the Department

This research seminar in psychoneuroimmunology examines how interactions among behaviour, the nervous system, and the immune system influence health. The broad focus is on relationships among brain, behaviour, and immunity from a life-span perspective and on the implications for disease management within various areas of behavioural medicine. (Format: Seminar 3 Hours) (Exclusion: PSYC 4501 Advanced Topics in Health Psychology)

**PSYC 4701 (3.00 CR)****ADVANCED TOPICS IN PERSONALITY**

**Prereq:** Third-year standing; PSYC 2701; 6 credits from PSYC at the 3000 level; or permission of the Department

This course presents an in-depth examination of theory and research pertinent to a topic of current interest in the field of Personality. (Format: Seminar 3 Hours)

**PSYC 4903 (3.00 CR)****HONOURS SEMINAR**

**Coreq:** PSYC 4990

A seminar for honours students in Psychology that will involve consideration of metatheoretical, psychometric, and ethical issues that inevitably arise in the course of virtually any type of psychological inquiry. In addition to the critical evaluation of classic articles on these topics, students will make periodic presentations of their own ongoing research, which will be open to all members of the Department. (Format: Seminar 2 Hours)

**PSYC 4950 (6.00 CR)****INDEPENDENT STUDY IN PSYCHOLOGY**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for PSYC 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)



**PSYC 4951 (3.00 CR)**  
**INDEPENDENT STUDY IN PSYCHOLOGY**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for PSYC 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**PSYC 4990 (6.00 CR)**  
**HONOURS THESIS**

**Coreq:** PSYC 4903

This course involves an experimental research project carried out in close consultation with a member of the Department. [Note: Consent of supervising staff member prior to registration and permission of the Program Advisor is required.] (Format: Independent Study/Thesis)

**PSYC 4991 (3.00 CR)**  
**SPECIAL TOPIC IN PSYCHOLOGY**

**Prereq:** Third-year standing; 6 credits from PSYC at the 2000 level; or permission of the Department

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for PSYC 4991 more than once, provided the subject matter differs.] (Format: Variable)

## RELIGIOUS STUDIES

Religion deals with the most basic and ultimate questions of human existence: the meaning and purpose of life; the presence of death, sorrow and anxiety; the existence of God; questions of morality and justice; the possibilities of transcendence, salvation, and liberation for individuals and communities. Religion plays a central role in the construction of human cultures and societies, motivating and legitimating social, political, and ethical action. Religion has been and continues to be a powerful influence in literature, the arts, and history, as well as in current civil and global conflicts.

Religious Studies as an academic discipline does not indoctrinate in any religious tradition (though it may certainly help students clarify their own thinking and convictions). Rather, it takes a scholarly and analytical approach, and, as such, is open to students from all backgrounds, secular and religious. The academic study of religion examines the various religious traditions of the world, east and west, in their historical and contemporary contexts. It explores the various ways in which religion shapes culture and history, forms values, and authorizes human action. Thus Religious Studies is an integral part of the liberal arts curriculum.

Courses in Religious Studies are divided into three streams: Eastern Traditions (Hinduism, Buddhism, East Asian Religions), Western Traditions (Judaism, Christianity, Islam), and Religion and Culture. Introductory courses (at 1000 and 2000 level) lay the foundation for focused study of particular traditions and for courses that explore how religion relates to themes in the wider culture - such as in the arts, gender issues, and ethics (at 3000 and 4000 level).

The Humanities 1600-series is intended to provide an introduction to Humanities disciplines. These three-credit courses offered by the participating disciplines of Classics, History, Philosophy and Religious Studies are designed to acquaint beginning students with the methodologies typical of these disciplines and to familiarize them with the approaches taken as well as the sorts of themes pursued and questions raised in these disciplines.

Further information is available on request from the Department Office, Room 112, Hart Hall (364-2556).

## RELIGIOUS STUDIES ELECTIVES

Those who wish to do electives may choose from Religious Studies courses in the 1600 series: 1641, 1651, and 1671; or from 2401, 2801, 2811, 2821, 2831, or 2841; or with appropriate prerequisites, several other courses in the Department.

## Disciplinary B.A. Programs

**MINOR in Religious Studies is 24 credits earned as follows:**

- 6 from the Humanities 1600 Series
- 6 from Religious Studies at the 2000 level
- 12 from Religious Studies at the 3/4000 level, chosen in consultation with the Program Advisor

**MAJOR in Religious Studies is 60 credits earned as follows:**

- 6 from the Humanities 1600 Series

- 9 RELG 2401, 2411, 2521, 2801, 2811, 2821, 2831, 2841
- 3 RELG 3901
- 3 from RELG 3001 or 3101
- 3 from RELG 3301 or 3311
- 6 from RELG 3501, 3601, 3701
- 12 from 3/4000 level Religious Studies courses, with at least 6 from 4000 level Religious Studies courses
- 18 credits from complementary courses in Arts and Letters, Humanities and Social Sciences (which may include up to 6 additional credits from 2000 level Religious Studies courses if the Humanities 1600 series courses above are from other Humanities disciplines), chosen in consultation with the Program Advisor

### **HONOURS in Religious Studies is 72 credits earned as follows:**

- 60 credits as in the Major, plus:
- 6 from RELG 4990
- 6 from Religious Studies at the 3/4000 level, chosen in consultation with the Program Advisor

### **RELIGIOUS STUDIES COURSES**

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following courses can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees: RELG 1600 series, 2401, 2801, 2811, 2821, 2831, 2841

#### **RELG 1621 (3.00 CR)**

##### **DEATH AND THE AFTERLIFE IN ASIAN RELIGIONS**

This course examines the practices and beliefs concerning death and the afterlife in six religious traditions: Buddhism, Confucianism, Daoism, 'folk' or 'popular' religion, Shinto, and Hinduism. It compares beliefs and practices related to death and the afterlife in these traditions and examines the diversity that exists both between and within these religions. (Format: Lecture 3 hours) (Distribution: Humanities-a) (Exclusion: RELG 1991 Death and the Afterlife in Asian Religions)

#### **RELG 1641 (3.00 CR)**

##### **RELIGION, THE BODY, AND SEXUALITY**

This course investigates the role the human body plays in the world's Western religious traditions (predominantly Judaism, Christianity, and Islam), namely, how the body affects or facilitates worship of the divine and what the related rites, practices, and texts have to say to us as physical beings. It considers such issues as bodily functions, gender roles, and sexual orientation. The course pays considerable attention to the intersections of religion and culture as they inform what it means to be an embodied believer. It also considers why the human imagination seems to need to conceive the divine in bodily form. (Format: Lecture 3 Hours) (Distribution: Humanities-a) (Exclusion: Any version of RELG 1641 previously offered with a different title)

#### **RELG 1661 (3.00 CR)**

##### **RELIGION AND POPULAR CULTURE**

This course examines various points at which religion and culture collide. It utilizes various media (film, music, fashion, literature) in order to interpret some of the complex relationships that form and maintain contemporary Western identity. Topics include cultural uses of religious symbolism and story, the power of popular piety, and the Western tendency towards consumption and commodification of religious traditions. (Format: Lecture 3 Hours) (Distribution: Humanities-a)

#### **RELG 1671 (3.00 CR)**

##### **SACRED SPACE AND HOLY LAND**

This course examines how the phenomena of "sacred space" and "pilgrimage", or "sacred journey", originate and give expression to core beliefs, symbols, and devotion of various world religions. It focuses particular attention upon ancient and contemporary Jerusalem, a hotly contested site of holiness for Jews, Christians, and Muslims. (Format: Lecture 3 Hours) (Distribution: Humanities-a) (Exclusion: RELG 1671 Sacred Space and Pilgrimage)

#### **RELG 1681 (3.00 CR)**

##### **THE QUEST FOR ENLIGHTENMENT: THE SEARCH FOR PERFECTION IN ASIAN RELIGIONS**

This course treats the theme of the spiritual quest in Asian religions. Surveying some of the major Asian religions (Hinduism, Buddhism, Jainism, Confucianism, Taoism, and Shinto) it explores the nature of the highest state thought to be achievable by humans and how that state is realized. Topics may include the role of morality, love, and human relationships in that quest, the place of rituals and institutions, and the vision for society. This course looks at both classical and contemporary views on these issues and situates them within their relevant socio-historical context. (Format: Lecture 3 Hours) (Distribution: Humanities-a)

#### **RELG 1991 (3.00 CR)**

##### **SPECIAL TOPIC IN RELIGIOUS STUDIES**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for RELG 1991 more than once, provided the subject matter differs.] (Format: Variable)

#### **RELG 2401 (3.00 CR)**

##### **INTRODUCTION TO EASTERN RELIGIONS**

This course introduces the origins, history, philosophy and practice of the major religions of India, China, and Japan, including Hinduism, Buddhism, Jainism, Sikhism, Confucianism, Taoism, and Shinto. (Format: Lecture 3 Hours) (Distribution: Humanities-a) (Exclusion: RELG 2211)

**RELG 2411 (3.00 CR)****MOTHER EARTH, FATHER SKY: RELIGION, HUMANS, AND NATURE**

**Prereq:** 3 credits from RELG 1600 series; or permission of the Department

This course investigates religious moral thought through the lens of nature and environmental issues. It explores various religious perspectives, both Asian and Western, on topics such as the meaning of nature and the place of humans in it, the value of landscapes and ecosystems, whether animals have moral standing and how they should be treated, and how current environmental problems should be understood and approached. (Format: Lecture 3 Hours)

**RELG 2521 (3.00 CR)****FOOD PRACTICES AND EAST ASIAN RELIGIONS**

**Prereq:** 3 credits from RELG 1600 series; or permission of the Department

This course examines the practices and beliefs associated with food in five East Asian religious traditions: Buddhism, Confucianism, Daoism, 'folk' or 'popular' religion, and Shinto. It introduces religious prescriptions and prohibitions related to food cultivation, storage, distribution, preparation, and consumption. Topics include connections between food practices and hierarchy and the roles that food plays in creating and sustaining relationships such as those between humans, living and dead, and non-humans. (Format: Lecture 3 Hours) (Exclusion: RELG 2991 Food Practices and East Asian Religions)

**RELG 2801 (3.00 CR)****INTRODUCTION TO WESTERN RELIGIONS**

This course examines the history, beliefs, practices, and contemporary socio-cultural significance of what are conventionally called the Western religions: Judaism, Christianity, and Islam. The course also briefly examines Ancient Near Eastern religions (Egyptian and Mesopotamian), Greco-Roman paganism, as well as Zoroastrianism and Baha'i. (Format: Lecture 3 Hours) (Distribution: Humanities-a) (Exclusion: RELG 2201)

**RELG 2811 (3.00 CR)****INTRODUCTION TO THE BIBLE I: HEBREW BIBLE**

This course introduces, in translation, the literature of the Hebrew Bible, or Old Testament. It discusses selected passages in the context of Israel's history, religion, and society, set against the backdrop of the Ancient Near Eastern civilizations of Egypt and Mesopotamia. It also explores why these texts and the religion they represent have been so influential and in what ways they still illuminate and speak to the human situation today. (Format: Lecture 3 Hours) (Distribution: Humanities-a) (Exclusion: RELG 2001)

**RELG 2821 (3.00 CR)****INTRODUCTION TO THE BIBLE II: NEW TESTAMENT**

This course discusses the literature of the New Testament, in English translation, in light of the historical and cultural conditions from which it emerged. It analyzes the New Testament both as a witness to Jesus and to Christian origins, and as a text which has exerted enormous creative power within human culture and history. (Format: Lecture 3 Hours) (Distribution: Humanities-a) (Exclusion: RELG 2011)

**RELG 2831 (3.00 CR)****FAITH AND DOUBT**

This course introduces the disciplines of theology and philosophy of religion within the Western theistic (Jewish/Christian) tradition. It considers the sometimes ambivalent relationship between reason and religious experience. Topics include rational proofs for the existence of God, religious self-understanding, the problem of evil, and the relationship between religious belief and scientific reason. (Format: Lecture 3 Hours) (Distribution: Humanities-a) (Exclusion: RELG 2501)

**RELG 2841 (3.00 CR)****THE APOCALYPTIC CONSCIOUSNESS**

This course studies the apocalyptic consciousness in ancient documents and in modern thought, particularly with reference to ideas about the Day of Judgment and Second Coming. In addition to biblical and non-biblical texts, it reflects on contemporary portrayals of the apocalyptic image in art, literature and film, and explores the apocalyptic cult with specific reference to cults of expectation. (Format: Lecture 3 Hours) (Distribution: Humanities-a) (Exclusion: RELG 2031)

**RELG 2991 (3.00 CR)****SPECIAL TOPIC IN RELIGIOUS STUDIES**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for RELG 2991 more than once, provided the subject matter differs.] (Format: Variable)

**RELG 3001 (3.00 CR)****HINDUISM**

**Prereq:** 3 credits from RELG 1681, 2401, 2411; 3 credits from RELG at the 1/2000 level; or permission of the Department

A study of Hinduism, examining its origins, history, philosophy, and culture. The course will treat ancient, classical, medieval and modern periods, and conclude with a discussion of the challenges facing contemporary Hinduism. (Format: Lecture 3 Hours) (Exclusion: RELG 3261)

**RELG 3101 (3.00 CR)****BUDDHISM**

**Prereq:** 3 credits from RELG 1681, 2401, 2411; 3 credits from RELG at the 1/2000 level; or permission of the Department

A study of Buddhism, examining its origins, history, philosophy and cultures. The course will treat the three major strands of classical Buddhism, and conclude with an analysis of the growing phenomenon of Western Buddhism. (Format: Lecture 3 Hours) (Exclusion: RELG 3271)

**RELG 3301 (3.00 CR)****RELIGIONS OF CHINA**

**Prereq:** 3 credits from RELG 1681, 2401, 2411; 3 credits from RELG at the 1/2000 level; or permission of the Department

This course will study the religious traditions of China, examining the basic ideas and concepts underlying Chinese religion and the ways in which these ideas were implemented. The course will look in detail at both Confucianism and Daoism, at Chinese folk religion, and at the adaptation of Buddhism to China. It will conclude with an evaluation of the current state of religion in China. (Format: Lecture 3 Hours)

**RELG 3311 (3.00 CR)****RELIGIONS OF JAPAN**

**Prereq:** 3 credits from RELG 1681, 2401, 2411; 3 credits from RELG at the 1/2000 level; or permission of the Department

This course will study the religious traditions of Japan, examining the underlying ideas and concepts of Shinto, including its relation to Shamanism, the nature and role of Kami, the role of purity and aesthetics, and its political functions. The introduction and adaptation of Buddhism and its relation to Shinto will be discussed, as will the modern day "new religions" which form such a vital part of contemporary Japanese religious practice. The influence and roles of Confucianism and Daoism will also be briefly covered. (Format: Lecture 3 Hours)

**RELG 3321 (3.00 CR)****SACRED PLACE IN EAST ASIA**

**Prereq:** 3 credits from RELG 1641, 1681; 3 credits from RELG 2401, 2411, 2521; or permission of the Department

This course focuses on the ways in which sacred sites have been constituted and transformed in five East Asian religious traditions: Buddhism, Confucianism, Daoism, 'folk' or 'popular' religion, and Shinto. By analysis of diverse primary source materials the course aims to enhance understanding of the complex processes by which sites are singled out as worthy of devotion to address the question: what needs have the establishment, preservation, recreation, and destruction of sacred places met in particular times and territories? (Format: Lecture 3 Hours) (Exclusion: RELG 3991 Sacred Space in East Asia)

**RELG 3411 (3.00 CR)****GENDER ISSUES IN EASTERN RELIGIONS**

**Prereq:** 3 credits from RELG 1641, 1681; 3 credits from RELG 2401, 2411; or permission of the Department

This course examines the role that gender plays in the context of myths, scriptural texts, rituals and doctrine, in the major religious traditions of the East. It examines such matters as sexuality and sexual orientation, the body, feminism and other critical approaches, political rights and responsibilities, access to religious experience, and spiritual leadership. (Format: Seminar 3 Hours)

**RELG 3481 (3.00 CR)****RELIGIOUS AND SPIRITUAL TRADITIONS IN CANADA**

**Prereq:** 6 credits from HIST, RELG at the 1/2000 level; or permission Department

This course surveys the history of early religious and spiritual traditions in Canada from before the early global era to the mid twentieth century. It focuses on Indigenous, Christian, and Jewish traditions, but others are also included. Topics include influential individuals, writings, and institutions in relation to the state and public life, as well as newer themes from cultural and social history. [Note: This course is cross-listed as RELG 3481 and may therefore count as 3 credits in either discipline](Format: Lecture 3 Hours) (Exclusion: Any version of HIST/RELG 3481 previously offered with a different title)

**RELG 3501 (3.00 CR)****JUDAISM**

**Prereq:** 3 credits from RELG 2801, 2811, 2841; 3 credits from RELG 1600 series; or permission of the Department

This course examines the roots and various expressions of Judaism in the ancient world up to the destruction of Jerusalem by the Romans in 70 CE and the rise of Rabbinic Judaism. Jewish life in the medieval world and the Islamic East, as well as the emergence of Kabbalah, are also discussed. The course then examines the emergence of various expressions of modern Judaism, including religious Zionism. The core convictions, sacred texts, institutions, and practices of Judaism will be analyzed within these historical contexts. (Format: Lecture 3 Hours) (Exclusion: RELG 3241)

**RELG 3601 (3.00 CR)****CHRISTIANITY**

**Prereq:** 3 credits from RELG 1600 series; 3 credits from RELG at the 2000 level; or permission of the Department

This course examines in detail the enormous breadth and richness of the Christian tradition, beginning with its historical and theological roots in the Jewish tradition and ending with some of the challenges faced in the contemporary world. It traces a path through key topics including theological thought, mystical experience, devotional practice, artistic expression, and ideological influence. The aim is to represent Christianity in its many facets and forms so as to appreciate its fundamental and ongoing significance in shaping Western cultural identity. (Format: Lecture 3 Hours)

**RELG 3611 (3.00 CR)****CHRISTIANITY IN THE ROMAN EMPIRE**

**Prereq:** 3 credits from RELG 2801, 2821, 3601; 3 credits from RELG 1600 series; or third or fourth year History Major; or permission of the Department

This course examines the crucial, defining crises of the ancient Christian communities in the social, political, and cultural context of Late Antiquity (roughly, 2nd to 6th centuries CE/AD). It analyzes early Christianity as a social movement, as a religious movement with a developing belief system, and as an historical phenomenon embedded within historical events and processes. [Note 1: This course is cross-listed as HIST 3611 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours)

**RELG 3621 (3.00 CR)****THE CONSTRUCTION OF CHRISTENDOM: THE HISTORY OF CHRISTIANITY DURING THE MEDIAEVAL ERA**

**Prereq:** 3 credits from HIST 2001, HIST 2011, RELG 2801, RELG 2821, RELG 2831, RELG 2841; 3 credits from HIST or RELG at the 2000 level; or permission of the Department

This course traces the history of Christianity, emphasizing the Roman communion, from the fifth to the mid-fifteenth century. It investigates the development of the institutional church; the evolution of forms of devotional observance, manifested in art and architecture, literature, and the liturgy; and the varied expressions of criticism and dissent aimed at the doctrinal teaching and conduct of clergy. [Note 1: This course is cross-listed as HIST 3621 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours) (Exclusion: HIST/RELG 3620; any version of HIST/RELG 3621 previously offered with a different title)

**RELG 3631 (3.00 CR)****THE FRACTURING OF CHRISTENDOM: THE REFORMATION ERA**

**Prereq:** 3 credits from HIST 2001, HIST 2011, HIST 2031, RELG 2801, RELG 2821, RELG 2831, RELG 2841; 3 credits from HIST or RELG at the 2000 level; or permission of the Department

This course treats the history of Christianity during the fifteenth and sixteenth centuries, an era when the unity of mediæval western Christendom was driven by series of reformations: Protestant, Radical, and Catholic. It investigates the ecclesiastical, intellectual, political, and social circumstances and consequences of dramatic religious change. [Note 1: This course is cross-listed as HIST 3631 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours) (Exclusion: HIST 3131)

**RELG 3661 (3.00 CR)****THE CHRISTIAN TRADITION AND THE UNIVERSITY**

**Prereq:** 3 credits from RELG 2801, 2831, 3601; 3 credits from RELG 1600 series; or permission of the Department

This course will introduce students to a consideration of the relationship between the Christian tradition and the origins and philosophy of the university, science, education and the liberal arts. The student will be encouraged to explore the complex inter-relatedness of litterae and religio and scientia, especially the creative tensions among these ways of knowing. (Format: Lecture 3 Hours) (Exclusion: RELG 2601)

**RELG 3671 (3.00 CR)****IN THE IMAGE OF GOD: UNDERSTANDING THE CHRISTIAN SELF**

**Prereq:** 3 credits from RELG 2831, 3601; 3 credits from RELG 1600 series; or permission of the Department

This course begins with the scene in Genesis where humanity is created in the image of God. It considers the various ways in which the human experience and the quest for meaning have been described, analyzed, and explained from theological and philosophical perspectives. Topics include the possibility of knowing God, the nature of the relationship between the human and the divine, the logic of resurrection, and the possibility of hope and ultimate meaning. (Format: Lecture 3 Hours)

**RELG 3701 (3.00 CR)****ISLAM**

**Prereq:** 3 credits from RELG 1671, 2801; 3 credits from RELG at the 1/2000 level; or permission of the Department

This course traces Islam from its origins in the life and activities of Mohammed through to contemporary world Islam and its diverse responses to the challenges of "modernity" and the West. The world view, institutions, rituals, and practices of Islam will be studied within these changing historical and cultural contexts. Effort will be made throughout to gain insight into the religious, spiritual impulses which animate Islam and unite devout Muslims. (Format: Lecture 3 Hours) (Exclusion: RELG 3291)

**RELG 3811 (3.00 CR)****GENDER ISSUES IN WESTERN RELIGIONS**

**Prereq:** 3 credits from RELG 1600 series; 3 credits from RELG at the 2000 level; or permission of the Department

This course examines the role that gender plays in the context of myths, scriptural texts, rituals and doctrine, in the major religious traditions of the West. It examines such matters as sexuality and sexual orientation, the body, feminism and other critical approaches, political rights and responsibilities, access to religious experience, and spiritual leadership. (Format: Seminar 3 Hours)

**RELG 3821 (3.00 CR)****THE WORD MADE TEXT: INTERMEDIATE TOPICS IN BIBLICAL STUDIES**

**Prereq:** 3 credits from RELG 1600 series; 3 credits from RELG 2811, 2821; or permission of the Department

This course considers what the Bible means and how we should interpret it. It builds upon knowledge of the basic content of the Bible (Hebrew Bible and New Testament), as well as some of the methods or mechanics of biblical interpretation discussed in RELG 2811 and 2821. The course offers the opportunity for close and critical readings of a variety of biblical texts, allowing for the investigation of numerous interpretive approaches such as historical, poetic, narrative, and ideological. Overall the goal is for students to become competent and self-aware readers of the Bible. (Format: Lecture 3 Hours)

**RELG 3891 (3.00 CR)****INDIAN PHILOSOPHY**

**Prereq:** 6 credits from PHIL; or permission of the Department

A study of selected primary sources in the Indian philosophical tradition, from the Vedas and Upanishads to the recent work of thinkers like S. Radhakrishnan. Topics usually include the nature of reality, moral obligation, Divinity, selfhood and freedom, the philosophy of love, and various social and political issues. [Note 1: This course is cross-listed as PHIL 3891 and may therefore count as three credits in either discipline.] (Format: Lecture 3 Hours)

**RELG 3901 (3.00 CR)****APPROACHING THE ULTIMATE: THEMES AND THEORIES IN RELIGIOUS STUDIES**

**Prereq:** 3 credits from RELG 1600 series; 3 credits from RELG at the 2000 level; or permission of the Department

This course examines various kinds of religious phenomena, including mystical experience, sacred texts, religious ethics, and ritual, and explores the different ways the discipline of Religious Studies understands and interprets them. It explores major theoretical approaches, including text-historical, phenomenological, gender-critical, philosophical, and cultural-critical, and assesses them critically for their value in the study of religion. [Note 1: This is a required course for all Majors and Honours students in Religious Studies and is recommended for those taking a Minor.] (Format: Lecture 3 Hours) (Exclusion: Any version of RELG 3901 previously offered with a different title)

**RELG 3911 (3.00 CR)****CONTEMPORARY ETHICAL ISSUES IN WESTERN RELIGIONS**

**Prereq:** 3 credits from RELG 2411, PHIL 2701; 3 credits from RELG 1600 series; or permission of the Department

This course considers the nature of ethics and explores some of the most prominent contemporary ethical issues, such as abortion, euthanasia, ecology, gay rights, racism, and sexism. (Format: Seminar 3 Hours) (Exclusion: Any version of RELG 3911 previously offered with a different title)

**RELG 3921 (3.00 CR)****CONTEMPORARY ETHICAL ISSUES IN EASTERN RELIGIONS**

**Prereq:** 3 credits from RELG 2411, PHIL 2701; 3 credits from RELG 1600 series; or permission of the Department

This course considers the response of Eastern Traditions' to contemporary ethical issues, such as those of abortion, euthanasia, ecology, and bio-medical technologies. The course looks at both classical and contemporary perspectives. (Format: Seminar 2 Hours) (Exclusion: Any version of RELG 3921 previously offered with a different title)

**RELG 3931 (3.00 CR)****THE BIBLE AND THE ARTS**

**Prereq:** 3 credits from RELG 2811, RELG 2821; 3 credits from RELG 1600 series; or permission of the Department.

This course will explore major biblical themes in the art and literature of the western world, looking at ways in which themes such as creation, liberation, salvation, resurrection, and fulfilment have been portrayed and interpreted in literature, the visual arts and music. The focus will be on the widespread influence of the Bible and biblical motifs on Western culture. (Format: Lecture 3 Hours)

**RELG 3941 (3.00 CR)****RELIGION, REVOLUTION AND VIOLENCE**

**Prereq:** 3 credits from RELG 1600 series; 3 credits from RELG at the 2000 level; or permission of the Department.

This course examines the development and historical manifestations of ideologies of violence and nonviolence within the major world religions, with special attention to how these ideologies continue to play themselves out in contemporary global and national conflicts. (Format: Lecture 2 Hours) (Exclusion: RELG 3231)

**RELG 3971 (3.00 CR)****RELIGION IN FILM**

**Prereq:** RELG 3901; 3 credits from RELG 1600 series; 3 credits from RELG at the 2000 level; RELG 2811, 2821 recommended; or permission of the Department

This course examines the cultural legacy and/or influence of various religious traditions and scriptural texts in the modern medium of film. It begins, with an examination of some great religious "epics", and then considers more recent cinematic treatments of religious themes and figures. (Format: Lecture 2 Hours, Laboratory 2.5 Hour)

**RELG 3981 (3.00 CR)****RELIGIOUS ETHICS AND THE ENVIRONMENT**

**Prereq:** 3 credits from RELG 2411, PHIL 2701; 3 credits from RELG 1600 series; or permission of the Department

This course investigates the role that various religions play in human interaction with the environment and explores how religions are responding or not responding to environmental problems. It examines various religious perspectives on nature and examines critically scholarship which applies religious perspectives to issues in environmental ethics. It also considers the religious basis of contemporary environmental thinkers and movements and examines the worldview assumptions and values that underlie so-called secular approaches to environmental issues. (Format: Seminar 3 Hours)

**RELG 3991 (3.00 CR)****SPECIAL TOPIC IN RELIGIOUS STUDIES**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for RELG 3991 more than once, provided the subject matter differs.] (Format: Variable)

**RELG 4401 (3.00 CR)****ASCETICS, SAINTS, AND SCOUNDRELS: ASIAN RELIGIOUS THEMES IN LITERATURE**

**Prereq:** 6 credits from RELG 3001, 3101, 3301, 3311, 3921, 3811, 3981; or permission of the Department

This course examines several genres such as those found in Hindu and Buddhist literature. The course begins with a study of selected classical texts and concludes with a discussion of selected Asian and Western contemporary literary works. (Format: Seminar 3 Hours) (Exclusion: Any version of RELG 4401 previously offered with a different title)

**RELG 4411 (3.00 CR)****ADVANCED STUDIES IN EASTERN THOUGHT**

**Prereq:** 6 credits from RELG 3001, 3101, 3301, 3311, 3921, 3811, 3981; or permission of the Department

This course focuses on the philosophical traditions of Hinduism and Buddhism. It examines both classical systems of thought and their modern interpretations. (Format: Seminar 3 Hours)

**RELG 4421 (3.00 CR)****EASTERN RELIGIONS AND THE CHALLENGE OF MODERNITY**

**Prereq:** 3 credits from RELG 1681, 2401, 2411; 3 credits from RELG 3001, 3101, 3301, 3311; or permission of the Department

This course examines the contemporary state of Eastern Religions. It discusses the recent histories of Eastern Religions, and looks at the challenges of science, consequences of colonialism, movements of political independence, and issues of poverty and social justice. It studies particularly these traditions' encounter with the West, and their responses to the cultural exchange that ensues from this encounter.

(Format: Seminar 3 Hours)

**RELG 4521 (3.00 CR)****KEY RELIGIOUS TEXTS OF EAST ASIA**

**Prereq:** 6 credits from RELG 3001, 3101, 3301, 3311, 3321, 3811, 3921, 3981; or permission of the Department

This course examines the significance in East Asian religion of a selected single religious text. Combining a careful reading of this document with the analysis of closely related primary source materials and important secondary scholarship, it explores relationships between texts and the social, political, economic, and religious contexts of their creation and circulation. (Format: Seminar 3 Hours)

**RELG 4611 (3.00 CR)****REINVENTING THE SACRED: CHRISTIANITY IN THE POST-SECULAR WEST**

**Prereq:** 6 credits from RELG 3601, 3901; or permission of the Department

This course considers the relationship between the Christian tradition and contemporary Western culture and looks at contemporary re-articulations of Christian beliefs, practices, and understandings. It examines from a cultural- critical perspective how thinkers have been forced to reformulate and modify traditional positions and beliefs in order to accommodate what are often vastly differing or at least unpredictable circumstances. This course considers how such innovations may reveal new ways forward in terms that are social, political, ethical, spiritual, and possibly even conventional. Ultimately it invites students to reflect on how these perspectives might enable the West to re-imagine its future possibilities in ways that are challenging and transformative for both the Christian tradition and Western identity. (Format: Seminar 3 Hours)

**RELG 4811 (3.00 CR)****THE DIVINE LIGHT OF REASON: ADVANCED TOPICS IN WESTERN THOUGHT**

**Prereq:** 9 credits from RELG 3601, 3671, 3901; or permission of the Department

This course examines the theology and philosophy of religion as they bear on Western religious traditions. It explores the strengths and limitations of theological perceptions and philosophical concepts as these apply to traditional religious issues such as the power of death, the possibility of hope and the ineffability of religious experience. Topics may include reformulating sacramental theology; comparing theological anthropology and phenomenology; reconciling biblical language and post-structuralism; and examining the incommensurate parameters of divine presence. (Format: Seminar 3 Hours)

**RELG 4821 (3.00 CR)****THE AUTHORITY OF THE TEXT: MEANING AND SACREDNESS IN WESTERN SCRIPTURE**

**Prereq:** RELG 3901; 3 credits from RELG 3811, 3931, 3941, 3971; or permission of the Department

This course examines the nature of scripture and what (or who) gives it authority. Through study of the related phenomena of interpretation, sacredness, and canonicity in biblical traditions, this course addresses questions of the origins of sacred texts and how such texts establish and sustain the religious, cultural, and social lives of communities. It explores how and with what results culturally and historically diverse interpretive communities have made fresh appropriations of scriptural traditions through various strategies of interpretation. It also asks what is at stake in these deliberations, who benefits, and how power operates or shifts via the various ideological mechanisms that serve to authorize scripture. (Format: Seminar 3 Hours) (Exclusion: Any version of RELG 4821 previously offered with a different title)

**RELG 4841 (3.00 CR)****SEXUALITY AND THE BIBLICAL TRADITION**

**Prereq:** RELG 3901; 3 credits from RELG 3821, 3931; or permission of the Department

This course explores the history of sexuality in biblical and post-biblical traditions. Through the close reading of biblical texts it examines the Bible's treatment of the subject of sex including bodily purity, reproduction and sexual orientation. It also looks at the Bible's influence on this subject in the history of Judaism, Christianity, and the modern, secular era. (Format: Seminar 3 Hours)

**RELG 4861 (3.00 CR)****THE QUEST FOR THE HISTORICAL JESUS**

**Prereq:** RELG 2821; 3 credits from RELG 3611, 3821; or permission of the Department

This course explores the scholarship of the historical Jesus, providing an overview of the attempts to reconstruct the Jesus of history as distinct from the Jesus of church tradition. It places particular emphasis on the biblical and non-biblical sources used and methodologies of enquiry employed. (Format: Seminar 3 hours) (Exclusion: RELG 4991 The Quest for the Historical Jesus)

**RELG 4950 (6.00 CR)****INDEPENDENT STUDY IN RELIGIOUS STUDIES**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for RELG 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

### **RELG 4951 (3.00 CR)** **INDEPENDENT STUDY IN RELIGIOUS STUDIES**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for RELG 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

### **RELG 4953 (3.00 CR)** **INDEPENDENT STUDY IN RELIGION**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for RELG 4953F/W more than once, provided the subject matter differs.] (Format: Independent Study)

### **RELG 4990 (6.00 CR)** **HONOURS THESIS**

Independent research and thesis writing under the direction of a member of the Department, for students in the Religious Studies Honours program. [Note 1: Permission of the Department is required.] (Format: Independent Study/Thesis)

### **RELG 4991 (3.00 CR)** **SPECIAL TOPIC IN RELIGIOUS STUDIES**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for RELG 4991 more than once, provided the subject matter differs.] (Format: Variable)

## **SCIENCE**

### **SCIENCE COURSE**

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

### **SCIE 1001 (3.00 CR)** **CONTEMPORARY TOPICS IN SCIENCE**

This course is designed to explore the science behind issues of current concern through reading and discussion of recent scientific articles, and through taking an in-depth look at the associated scientific principles. Laboratory exercises may be used to expose students to techniques used in modern scientific and technological research and development. [Note 1: Permission of the Instructor is required. Note 2: This course may not be taken by students registered in B.Sc. programs, nor does it count as a science course for the B.Sc. degree] (Format: Lecture 3 Hours, Tutorial 1.5 Hours)

### **SCIE 1991 (3.00 CR)** **SPECIAL TOPIC IN SCIENCE**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean of Science. Note 3: Students may register for SCIE 1991 more than once, provided the subject matter differs.] (Format: Variable)

### **SCIE 2991 (3.00 CR)** **SPECIAL TOPIC IN SCIENCE**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean of Science. Note 3: Students may register for SCIE 2991 more than once, provided the subject matter differs.] (Format: Variable)

### **SCIE 3991 (3.00 CR)** **SPECIAL TOPIC IN SCIENCE**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean of Science. Note 3: Students may register for SCIE 3991 more than once, provided the subject matter differs.] (Format: Variable)



**SCIE 4991 (3.00 CR)**  
**SPECIAL TOPIC IN SCIENCE**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean of Science. Note 3: Students may register for SCIE 4991 more than once, provided the subject matter differs.] (Format: Variable)

## **SOCIOLOGY**

Sociology involves the study of people as they interact with one another in varied social-structural, cultural and historical contexts. Sociology provides information on the social world, introduces students to different perspectives on social life, and offers training in specific research skills. It expands our horizons, challenges us to think critically about the world around us, and prepares us to participate in that world. First and second year sociology courses provide an overview of the discipline and an introduction to sociological analysis. Third year courses emphasize theoretical approaches, analytical methods, and their application to major substantive areas of sociological interest. Fourth year courses allow students to work with greater interdependence and in more depth on a range of sociological topics.

### **Disciplinary B.A. Programs**

#### **MINOR in Sociology is 24 credits earned as follows:**

- 6 from SOCI 1001, 1201
- 6 from Sociology at the 2000 level
- 3 from SOCI 3001,3011
- 3 from SOCI 3301,3311
- 6 from Sociology at the 3/4000 level

#### **MAJOR in Sociology is 60 credits earned as follows:**

- 6 from SOCI 1001, 1201
- 6 from Sociology at the 2000 level
- 12 from SOCI 3001, 3011, 3301, 3311
- 3 from SOCI 3701, 3711, 3721, 3731, 3741, 3751, 3761, 3771, 3781
- 6 from Sociology at the 3000 level
- 6 from Sociology at the 4000 level
- 3 from Sociology at the 2/3/4000 level
- 18 from complementary courses in Social Sciences, Humanities, Arts and Letters, Psychology, or MATH 2311, 2321, 3311

#### **HONOURS in Sociology (Thesis Option) is 66 credits earned as follows:**

- 39 credits as in the first six lines of the Major, plus:
- 21 from Sociology at the 2/3/4000 level including at least 6 at the 3/4000 level
- 6 from SOCI 4990

#### **HONOURS in Sociology (Course Option) is 66 credits earned as follows:**

- 39 credits as in the first six lines of the Major, plus:
- 27 from Sociology at the 2/3/4000 level, including at least 12 at the 3/4000 level of which at least 6 must be at the 4000 level

#### **HONOURS in Sociology (Applied Option) is 66 credits earned as follows:**

- 39 credits as in the first six lines of the Major, plus:
- 12 from Sociology at the 2/3/4000 level
- 12 from SOCI 3701, 3711, 3721, 3731, 3741, 3751, 3761, 3771, 3781

3 from SOCI 4311, 4971

## SOCIOLOGY COURSES

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**Note:** The following course can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees: SOCI 1001

### SOCI 1001 (3.00 CR) INTRODUCTION TO SOCIOLOGY

This course introduces the basic concepts of sociology including social structure, culture, socialization, deviance, social control, social organization, structured social inequality, and social change. It makes extensive use of examples from the Canadian context. (Format: Lecture 3 Hours) (Distribution: Social World)

### SOCI 1201 (3.00 CR) SOCIOLOGICAL IMAGINATION

**Prereq:** SOCI 1001; or permission of the Department

This course explores the major theoretical frameworks of sociology and the conceptual tools used to examine intersecting social relations embedded in everyday practices. It focuses on understanding how biographical characteristics are influenced by impersonal historical forces and significant structural transformations of society. The examination of sociological imagination lays the foundation for understanding how to differentiate between 'personal troubles' and 'public issues'. (Format: Lecture 3 hours)

### SOCI 1991 (3.00 CR) SPECIAL TOPIC IN SOCIOLOGY

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for SOCI 1991 more than once, provided the subject matter differs.] (Format: Variable)

### SOCI 2111 (3.00 CR) SOCIAL CLASS AND INEQUALITY

**Prereq:** Take SOCI 1201 or permission of the Department

This course is intended as an introductory examination of social inequalities and stratification in Canada based primarily on issues relating to class. This course guides students through an understanding of historic class formations in Canada to more modern analyses and understandings of class as related to neo-liberal and global economies. As well, this course looks at the intersections of class with gender, race, and disability as it relates to social inequalities and stratification. (Format: Lecture 3 Hours) (Exclusion: SOCI 2991 Social Class and Inequality)

### SOCI 2121 (3.00 CR) RACE AND RACIALIZATION

**Prereq:** Take SOCI 1201 or permission of the department

This course uses sociological perspectives to examine the social construction of "race" in historical and contemporary contexts. The course analyzes and students critically examine evidence of systemic patterns of advantage and disadvantage based on migration, racism, ethnicity, and aboriginality in national and global contexts. It explores the effects of racialization on social, political, and academic discourse as well as policy responses, resistance movements, and alternatives for reducing and eliminating racism. (Format: Lecture 3 Hours)

### SOCI 2211 (3.00 CR) GENDER RELATIONS

**Prereq:** Take SOCI 1201 or permission of the Department

This course introduces the study of gender through an examination of the nature of gender relations. It also considers major theories of the origin and consequences of gender inequality and addresses issues such as reproduction, work, law, violence, and racism with a focus on Canadian examples. (Format: Lecture 3 Hours) (Exclusion: SOCI 3211)

### SOCI 2221 (3.00 CR) SOCIOLOGY OF YOUTH

**Prereq:** Take SOCI 1201 or permission of the department

This course explores youth in relation to contexts of social structure (culture, family and peer groups), within institutions, and from local as well as global perspectives. This course looks critically at the social construction of youth in schools, families, the media, and other social institutions. It examines how socio-political factors affect youth, the agency of youth as citizens and decision-makers, and the importance of social positions such as race, sexuality, gender, nationality, and socioeconomic status. (Format: Lecture 3 Hours) (Exclusion: SOCI 3991 Youth and Society)

### SOCI 2231 (3.00 CR) SOCIOLOGY OF SEX AND SEXUALITY

**Prereq:** Take SOCI 1201 or permission of the department

This course examines sexual attitudes, beliefs, and behaviors from a sociological perspective, exploring how the biology of sex is sociologically constructed. It examines and explores theoretical and conceptual issues and empirical research and directs students to think about sexuality analytically and critically and to develop a sociological understanding of diverse issues. Topics include: sexual identity and its construction and regulation; sexuality and the Enlightenment; science and sex; ethics and social institutions; and the relationship between sexuality and the socio-political process. (Format: Lecture 3 Hours) (Exclusion: SOCI 2991 Sociology of Sex and Sexuality)

### SOCI 2401 (3.00 CR) COLONIALISM, RACISM, AND INDIGENEITY IN CANADA

**Prereq:** Take SOCI 1201 or permission of the Department

This course explores the position of Indigenous people in Canadian society by focusing on the social dimensions of race, ethnicity, and aboriginality. The course also considers the extent to which racism, patriarchy, capitalism, power, privilege, and access to resources contribute to the marginalization of Indigenous peoples and focuses particularly on socially constructed relationships that emphasize and perpetuate social inequality and stratification. (Format: Lecture 3 hours)

**SOCI 2501 (3.00 CR)**  
**YOUTH CRIMINALIZATION**

**Prereq:** SOCI 1201; or permission of the Department

This course explores youth criminalization and youth justice from a critical sociological perspective, with particular attention to systemic issues of race, class, gender, age, and sexuality. Drawing primarily from critical criminology, the course traces the emergence and development of youth justice systems, and analyzes continuity and changes in youth justice policy and practice over time. Main topics include different correctional models such as punitive, welfare, and newer actuarial justice approaches and the criminalization of youth in the contemporary period with emphasis on the theory of intersectionality. Finally, the course examines alternative policies, practices, and attitudes intended for radical transformation of youth justice in the future. (Format: Lecture 3 Hours) (Exclusion: SOCI 2991 Youth Criminalization)

**SOCI 2611 (3.00 CR)**  
**SOCIOLOGY OF DISABILITY**

**Prereq:** SOCI 1201; or permission of the Department

This course explores sociocultural and political aspects of disability while paying particular attention to the ways in which disability intersects with other aspects of social life such as race, religion, sexuality, socioeconomic status, age, and gender. It explores key theoretical and methodological approaches used in the sociological study of disability and examines federal and international policy debates that address the rights and needs of people with disabilities. Course topics include: the medical model of disability, the social model of disability, feminist theories of disability, neurodiversity, activism, ableism, employment, race, eugenics, disability culture, gender, sexuality, and the representation of disability in media and popular culture. (Format: Lecture 3 Hours) (Exclusion: SOCI 2991 Sociology of Disability)

**SOCI 2991 (3.00 CR)**  
**SPECIAL TOPIC IN SOCIOLOGY**

**Prereq:** Take SOCI 1201 or permission of the Department

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for SOCI 2991 more than once, provided the subject matter differs.] (Format: Variable)

**SOCI 3001 (3.00 CR)**  
**THEORETICAL FOUNDATIONS OF SOCIOLOGY**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This course offers a critical review of the perspectives developed in the first and second generations of sociology in Europe with special emphasis on the ideas of Auguste Comte, Herbert Spencer, Karl Marx, Max Weber, and Emile Durkheim. (Format: Lecture 3 Hours)

**SOCI 3011 (3.00 CR)**  
**CONTEMPORARY SOCIOLOGICAL THEORY**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This course provides an overview of concepts, theoretical issues, and debates in recent sociological theory. It examines the nature of functionalism and conflict theory, the rise of micro-sociological analysis, the challenges of feminism, the debate over post-modernism, and other contemporary theoretical developments. (Format: Lecture 3 Hours)

**SOCI 3101 (3.00 CR)**  
**SOCIOLOGY OF EMOTIONS**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This course draws upon contemporary social theory on emotion, subjectivity, and power in order to analyze the emotional terrain of 'social world' and understand how power affects us. This course introduces major works in post-Foucauldian Sociology, including the work of Hochschild, Sedgwick, Ahmed and Illouz and responds to the question of how power works outside of financial or material systems. It examines the role that shame, happiness, desire, and other emotional experiences are shaped and structured by institutions such as the media, religion, and education and how, in turn, emotion comes to drive social life. (Format: Lecture 3 Hours)

**SOCI 3221 (3.00 CR)**  
**WORK AND SOCIETY**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This course explores the nature and meaning of work in relation to changes in the position of professions, unions, government, women, and minority groups in industrial and post-industrial societies. It also includes consideration of topics such as the relations between work and the family, work and gender, and work and politics. While focusing on work in Canada this examination is also located in broader international trends and processes. (Format: Lecture 3 Hours)

**SOCI 3301 (3.00 CR)**  
**QUANTITATIVE SOCIOLOGICAL RESEARCH METHODS**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This is a course in sociological research methodology, including a consideration of questions of social epistemology and research design. Students gain practical experience in doing social research through the conducting of surveys, data analysis, introductory statistical procedures, content analysis, case studies, and other techniques. (Format: Integrated Lecture and Laboratory 3 Hours) (Exclusion: Any version of SOCI 3301 previously offered with a different title)

**SOCI 3311 (3.00 CR)****QUALITATIVE SOCIOLOGICAL RESEARCH METHOD**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This course examines the ways in which qualitative data are collected, analyzed, and used in the social sciences. Beginning with understanding the theory and theoretical debates of qualitative research, the course explores questions of definition, use, evidence, standards of rigour, and notions of what constitutes 'good' scientific evidence. The course covers a variety of theoretical orientations and explores how and when they are best applied. (Format: Integrated Lecture and Laboratory 3 Hours)

**SOCI 3331 (3.00 CR)****FIELD COURSE IN SOCIOLOGY**

This course is designed to provide students with an intensive field experience, during which they pursue research on a topic to be chosen by the Instructor. Completion of SOCI 3301 (Sociological Research Methods) is recommended before registering for this course. [Note 1: Permission of the Department is required. Note 2: This course requires attendance at a multi-day off-campus field camp and students will be liable for some field trip costs. Note 3: Students may register for SOCI 3331 more than once, provided the subject matter differs ] (Format: Lecture 3 Hours, Field Course)

**SOCI 3431 (3.00 CR)****CRITICAL MEDIA ANALYSIS**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This is an advanced research course on the media-based control of information and dissemination of ideologies in modern society. It examines issues of ownership and control of the media and the social construction of news, and current theoretical debates in media analysis. (Format: Lecture 3 Hours)

**SOCI 3451 (3.00 CR)****DYNAMICS OF POPULAR CULTURE**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This course investigates the processes and forms of contemporary popular culture. It introduces students to the major theoretical debates in the field of popular culture and examines the development of popular cultural expression. (Format: Lecture 3 Hours)

**SOCI 3511 (3.00 CR)****SOCIOLOGY OF HEALTH & ILLNESS**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This course explores health, illness, and health care from a sociological perspective. The course focuses on the social determinants of health, demonstrates how social structures influence the occurrence of illness, examines why some social groups suffer more sickness and disease than others, deconstructs the social construction of medical practices and medicalization, and shows how health practices are socially constructed. (Format: Lecture 3 Hours)

**SOCI 3521 (3.00 CR)****COMMUNITIES**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This course reviews the sociological literature on rural, small-town, and urban social organization with special emphasis on the notion of "community" in Canadian society. (Format: Lecture 3 Hours)

**SOCI 3531 (3.00 CR)****EDUCATION AND SOCIETY**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This course examines education as a social institution. Focusing primarily on public education at the elementary and secondary level, this course addresses the changing context of the learning environment and its relation to diverse aspects of society including class, gender, and race. This course employs various theoretical lenses to explore the social construction of public education in Canada, tracing its changing nature and purpose from its inception to more modern times. (Format: Lecture 3 Hours) (Exclusion: SOCI 2531)

**SOCI 3541 (3.00 CR)****POPULATION AND SOCIETY**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This course examines population dynamics and social change within nations and globally. Students study national population trends and policy debates as these relate to global population issues. Topics include Canadian and global patterns of population growth; fertility; family planning; famine, disease, and mortality; social security and aging; international migration; and ethnic composition. Social inequality, environmental limits and food supply, and principles of social justice inform a critique of population trends in the evolving world system of regions and nations. (Format: Lecture 3 Hours)

**SOCI 3551 (3.00 CR)****CITIZENSHIP, IDENTITY & DIFFERENCE**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This course explores identity and difference in relation to national and post-national forms of citizenship. Students examine contemporary discourses of Canadian identity, immigration, diversity, multiculturalism, and belonging. The course considers what it means to be a citizen, ideas of home, access to rights for dominant and subordinate groups, the dynamics of inclusion and exclusion in the nation and globally, and struggles for recognition among ethnic minority groups. The course also analyzes social inequalities in citizenship practice, the renegotiation of citizenship rights, and the emergence of new forms of citizenship in Canada and globally. (Format: Lecture 3 Hours)

**SOCI 3701 (3.00 CR)**  
**SOCIAL POLICY ANALYSIS**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This course provides the opportunity for students to apply sociological theories and perspectives to the development and analysis of social policies and programs. Social policy is the arena in which citizens, professionals, non-governmental organizations, social movements, and government address the social inequities underlying the lived realities of individuals. The course leads to an understanding of how sociology can be applied in researching, developing, analyzing, and implementing 'real world' social policies and programs. (Format: Lecture 3 hours)(Exclusion: SOCI 3991 Social Policy)

**SOCI 3711 (3.00 CR)**  
**COMPARATIVE SOCIAL POLICY**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This course provides students with a comparative perspective on social welfare policies in Canada and other industrialized nations. Students examine the various ways that countries conceptualize and organize social welfare policies, especially those that have an impact on poverty, child and family well-being, and gender equality. The course emphasizes change, culture, polity, and economic forces as important factors in shaping social policies throughout the world and assesses the strengths and weaknesses of a variety of empirical and theoretical models. (Format: Lecture 3 Hours) (Exclusion: SOCI 3991 Comparative Social Policy)

**SOCI 3721 (3.00 CR)**  
**NON-PROFIT ORGANIZATIONS**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This course provides students with theoretical perspectives and empirical research connected to the sociology of organizations. Students explore the history, magnitude, and trends of the non-profit sector in Canada. Topics include the dynamics of the non-profit, government, and for-profit sectors; the history of the social roles of volunteerism and non-profit organizations; the impact of non-profit organizations on society; and the changing roles of the three sectors in the twenty-first century. (Format: Lecture 3 Hours) (Exclusion: SOCI 2991 Non-Profit Leadership)

**SOCI 3731 (3.00 CR)**  
**APPLIED SOCIAL RESEARCH**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This course draws on a broad range of theoretical principles in sociology and sociological research methods to analyze and recommend solutions for various social problems. Topics include establishing a research agenda and parameters, funding applied research, the relationship between goals and outcomes, measurement issues, program and evaluation processes, and client relations. A key component of the course is grant writing and communication in the professional setting. (Format: Lecture 3 Hours)

**SOCI 3741 (3.00 CR)**  
**CLINICAL SOCIOLOGY**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This course introduces clinical sociology beginning with a critical examination of the ethics, values, and historical development of the profession. It provides an opportunity for students to understand the role of the human services sector in a diverse and complex society. Students learn to apply sociological analysis of power, practices, policies, and beliefs in order to develop interventions at the micro, meso, and macro levels which will improve the situation of client systems. (Format: Lecture 3 Hours) (Exclusion: Any version of SOCI 3741 previously offered with a different title.)

**SOCI 3751 (3.00 CR)**  
**SERVICE SOCIOLOGY**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This course provides hands-on opportunities for students to gain practical skills and experience in service sociology, a socially responsible and mission-oriented sociology of action and alleviation, through public service, social action, and community engagement. It provides an opportunity for students to learn from experienced professionals and acquire relevant skills that can be applied in the work or voluntary sector. Students gain theoretical and methodological understanding of the interventions available for community-based engagement. (Format: Lecture 3 Hours) (Exclusion: Any version of SOCI 3751 previously offered with a different title.)

**SOCI 3761 (3.00 CR)**  
**COMMUNITY HEALTH**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This course provides an introduction to the study of structural inequalities that contribute to health disparities, with an emphasis on geographic, identity-based, or virtual communities as the focus for research and intervention. It also considers the social justice implications and potential effectiveness of public health policies and programs and investigates the value of participatory community interventions in prevention, health promotion, and care with individuals, families, and community members. (Format: Lecture 3 hours)

**SOCI 3771 (3.00 CR)**  
**CULTURAL COMPETENCIES**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This course enters into debates about the relevance of culture and diversity through the concept of cultural competence defined as a set of skills, values, and principles that acknowledge, respect, and work towards optimal interactions between the individual and various cultural, ethnic, and racialized groups. This course examines cultural competency from personal, experiential, historical, and organizational perspectives, with a specific focus on the recognition of diversity and inclusion within a variety of settings. Topics also include: cultural consciousness, micro-aggressions, and cross-cultural communication. (Format: Lecture 3 Hours) (Exclusion: SOCI 3991 Cultural Competencies)

**SOCI 3781 (3.00 CR)**  
**PROGRAM EVALUATION**

**Prereq:** 6 credits from SOCI at the 2000 level; or permission of the Department

This course provides a conceptual and practical introduction to the orientation, values, methods, and professional standards of program evaluation as an applied technique to evaluate the design, implementation, effectiveness, and impact of social programs in both the for-profit and not-for-profit sectors. It involves the systematic collection and analysis of data using research methods, including but not limited to needs assessments, cost/benefit analysis, and interviews. It introduces students to program evaluation theory, principles, and technique and involves the design and execution of a case-based program evaluation. (Format: Lecture 3 Hours)

**SOCI 3991 (3.00 CR)**  
**SPECIAL TOPIC IN SOCIOLOGY**

**Prereq:** 6 credits from 2000 level; or permission of the Department

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for SOCI 3991 more than once, provided the subject matter differs.] (Format: Variable)

**SOCI 4011 (3.00 CR)**  
**SOCIOLOGY OF KNOWLEDGE**

**Prereq:** 6 credits from SOCI 3001, 3011, 3301, 3311; or permission of the Department

This course focuses on the relationship between ideas and their social and cultural contexts. It critically examines various forms of knowledge, including common sense, scientific knowledge, and feminist epistemology. (Format: Seminar 3 Hours) (Exclusion: SOCI 3441)

**SOCI 4111 (3.00 CR)**  
**REPRESENTATIONS OF SOCIAL PROBLEMS**

**Prereq:** 6 credits from SOCI 3001, 3011, 3301, 3311; or permission of the Department

This course explores contemporary social problems through the lenses of social institutions, inequality, socioeconomic status, racialization, political and economic structures, and social policy. Relying on representations depicted in television, film, music, and literature, this course analyzes causes of major problems including drug use, crime, poverty, family, youth, education, discrimination, and urban problems. (Seminar 3 Hours)

**SOCI 4201 (3.00 CR)**  
**SOCIOLOGY OF HUMAN SERVICES**

**Prereq:** 6 credits from SOCI 3001, 3011, 3301, 3311; or permission of the Department

This course brings a critical and theoretical focus to the 'helping professions'. Drawing from contemporary social theory on institutions, power, and subjectivity, it investigates the landscape of non-governmental, governmental, and private charitable organizations within the human services. It also explores the tensions between non-governmental organizations and democracy in contemporary society and examines notions of power, welfare, and 'help' in the context of class, race, gender, medical status, and education in Canada. (Format: Seminar 3 hours)

**SOCI 4211 (3.00 CR)**  
**CRITICAL CRIMINOLOGY**

**Prereq:** 6 credits from SOCI 3001, 3011, 3301, 3311; or permission of the Department

This course investigates contemporary concepts in critical criminology through examination of texts drawn from postmodern sociological theory, critical prison studies, cultural criminology, and the sociology of law. It examines the social constructions of deviance and crime and resulting practices of punishment, detention, policing, and control, and also considers the role of race, class, gender, age, and citizenship status as factors that result in a diversity of experiences with law, freedom, violence, and punishment. (Format: Seminar 3 hours)

**SOCI 4311 (3.00 CR)**  
**COMMUNITY-BASED PARTICIPATORY RESEARCH METHODS**

**Prereq:** 6 credits from SOCI 3001, 3011, 3301, 3311; or permission of the Department

This course examines the emerging field of Community-Based Participatory Research (CBPR) and its applications through arts-based research initiatives. This course focuses on CBPR literature that highlights the benefits of active collaborations between communities and researchers and recognizes and values the contributions of community collaborators. (Format: Seminar 3 Hours) (Exclusion: SOCI 4991 Community-based Participatory Research Methods)

**SOCI 4501 (3.00 CR)**  
**POLITICAL SOCIOLOGY**

**Prereq:** 6 credits from SOCI 3001, 3011, 3301, 3311; or permission of the Department

This course examines the sociological practices that lead to political authority, structures of control, and relations of power that guide and influence social life. Starting from theoretical perspectives in political sociology, this course explores domestic and international examples of social and political practices that help sustain existing conditions while at the same time providing opportunities to transform society. Understanding agency and structure as elements of political action and participation, both in large group and communal settings and small-scale and individual actions, this course explores the multi-dimensional aspects of power and control in our society. (Format: Seminar 3 Hours) (Exclusion: SOCI 3501)

**SOCI 4511 (3.00 CR)**  
**SOCIAL MOVEMENTS**

**Prereq:** 6 credits from SOCI 3001, 3011, 3301, 3311; or permission of the Department

This course examines movements that seek change in the social and political structure of society. It surveys the major principles and perspectives used by sociologists to explain social movements and revolutions. It examines the origins, strategies, recruitment, consequences, decline, and renewal of various social movements and revolutions. (Format: Seminar 3 Hours) (Exclusion: Any version of SOCI 4511 previously offered with a different title)

**SOCI 4541 (3.00 CR)**  
**ADVANCED TOPICS IN EDUCATION**

**Prereq:** 6 credits from SOCI 3001, 3011, 3301, 3311; or permission of the Department

This course explores advanced issues in education as they relate to social problems. Exploring the reproductive and structural aspects of knowledge creation, this course moves toward an understanding of the contradictory elements of public education as it pertains to a post-industrial world fraught with inequalities. The course explores issues of schooling as it relates to work in institutions that are both preparatory for the workplace and places of work for teachers, administrators, and others. Lastly, this course uncovers opportunities for educational reforms that can contribute potentially to a more just society. (Format: Seminar 3 Hours)

**SOCI 4551 (3.00 CR)**  
**REFUGEE STUDIES**

**Prereq:** 6 credits from SOCI 3001, 3011, 3301, 3311; or permission of the Department

This course explores selected topics of the contemporary global refugee crisis and the role of Canada and international agencies in humanitarian assistance, resettlement, and return. The course addresses sociological analyses of the relationship between emergency responses and sustainable solutions to internal displacement and refugee flight. It considers, with respect to national and international refugee policies, socially significant differences among refugees according to gender, age, ethnicity, social class, country, and region of origin. (Format: Seminar 3 Hours)

**SOCI 4561 (3.00 CR)**  
**GLOBALIZATION AND TRANSNATIONALISM**

**Prereq:** 6 credits from SOCI 3001, 3011, 3301, 3311; or permission of the Department

This course examines selected topics of contemporary globalization in relation to transnational processes and forms. It analyzes transnational forms and practices of migration, migrant organization, community, identity, and belonging in relation to contemporary globalization. The course considers implications of interrelated global flows of people, culture, goods, and capital for social relations, social structure, and social change. (Format: Seminar 3 Hours)

**SOCI 4601 (3.00 CR)**  
**SOCIOLOGY OF THE BODY**

**Prereq:** 6 credits from SOCI 3001, 3011, 3301, 3311; or permission of the Department

This course provides an introduction to recent sociological thinking about the body in social, cultural, and historical contexts. Topics include a consideration of bodies as objects of discipline, as gendered and classed constructions, and as means of expression regarding race and sexuality. It examines the body as a set of experiences and institutions while paying particular attention to that which is perceived to be 'natural' and 'normal', the assumptions underlying social understandings of bodies, and the implications of those assumptions for social change. (Format: Seminar 3 Hours) (Exclusion: SOCI 4991 Sociology of the Body)

**SOCI 4701 (3.00 CR)**  
**SOCIOLOGY OF POWER AND INEQUALITY**

**Prereq:** 6 credits from SOCI 3001, 3011, 3301, 3311; or permission of the Department

This course uses sociological analyses of power to understand issues of bullying, harassment, shaming, violence, abuse of authority, and consent in various social institutions including workplaces, police and military, schools and universities, and online communities. It explores sociological approaches to addressing these issues, such as conflict resolution and restorative justice perspectives. (Format: Seminar 3 Hours)

**SOCI 4801 (3.00 CR)**  
**ADVANCED TOPICS IN SOCIOLOGY OF THE LIFE COURSE**

**Prereq:** 6 credits from SOCI 3001, 3011, 3301, 3311; or permission of the Department

This course explores the shared and varied understandings that members of Western industrialized societies have about the changes that occur between birth and death, and about the social roles and activities that are expected to occur during different times of life. It explores the ways in which individuals organize their lives, and have their lives organized in ways that are consistent with these ideas, as well as exploring changing ideas about life course development. (Format: Seminar 3 Hours)

**SOCI 4901 (3.00 CR)**  
**ISSUES IN SOCIOLOGY**

**Prereq:** 6 credits from SOCI 3001, 3011, 3301, 3311; or permission of the Department

This course involves a study of specific issues in Sociology. (Format: Seminar 3 Hours)

**SOCI 4950 (6.00 CR)**  
**INDEPENDENT STUDY IN SOCIOLOGY**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for SOCI 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**SOCI 4951 (3.00 CR)**  
**INDEPENDENT STUDY IN SOCIOLOGY**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for SOCI 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**SOCI 4971 (3.00 CR)**  
**COMMUNITY BASED LEARNING PROJECT**

**Prereq:** 6 credits from SOCI 3001, 3011, 3301, 3311; or permission of the Department

This course integrates academic course work with community engagement linking sociological concepts, empirical studies, embodied knowledge, public and applied sociology, and field research with independent experience working in partnership with a community organization. This course aims to heighten students' engagement with central sociological themes and material through their experiences in community-based work. The academic course content facilitates students' ability to reflect in deep and constructive ways on their experiences working with the community. [Note 1: Students must obtain consent of an instructor who is willing to be a supervisor.] (Format: Independent Study)

**SOCI 4990 (6.00 CR)**  
**HONOURS THESIS**

[Note 1: Permission of the Department is required.] (Format: Thesis)

**SOCI 4991 (3.00 CR)**  
**SPECIAL TOPIC IN SOCIOLOGY**

**Prereq:** 6 credits from SOCI 3001, 3011, 3301, 3311; or permission of the Department

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for SOCI 4991 more than once, provided the subject matter differs.] (Format: Variable)

## SPANISH STUDIES

See Modern Languages and Literatures, Hispanic Studies

## UNIVERSITY SPECIAL TOPIC COURSES

Most courses at Mount Allison are offered by departments or programs and are designated with the associated course code. But there may be opportunities to offer a course in an interdisciplinary area or in a subject area that does not fall within any existing department or program. In such cases the course may be offered as a University Special Topic course.

### UNIVERSITY SPECIAL TOPIC COURSES

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**UNST 1991 (3.00 CR)**  
**UNIVERSITY SPECIAL TOPIC**

This course focuses on a topic not covered by the current course offerings in a department or program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for UNST 1991/2991/3991/4991 more than once, provided the subject matter differs.] (Format: Variable)

**UNST 1993 (3.00 CR)**  
**UNIVERSITY SPECIAL TOPIC**

This course focuses on a topic not covered by the current course offerings in a department or program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for UNST 1991/2991/3991/4991 more than once, provided the subject matter differs.] (Format: Variable)

**UNST 2991 (3.00 CR)**  
**UNIVERSITY SPECIAL TOPIC**

This course focuses on a topic not covered by the current course offerings in a department or program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for UNST 1991/2991/3991/4991 more than once, provided the subject matter differs.] (Format: Variable)

**UNST 3991 (3.00 CR)**  
**UNIVERSITY SPECIAL TOPIC**

This course focuses on a topic not covered by the current course offerings in a department or program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for UNST 1991/2991/3991/4991 more than once, provided the subject matter differs.] (Format: Variable)



**UNST 4991 (3.00 CR)**  
**UNIVERSITY SPECIAL TOPIC**

This course focuses on a topic not covered by the current course offerings in a department or program. [Note 1: Prerequisite set by the Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for UNST 1991/2991/3991/4991 more than once, provided the subject matter differs.] (Format: Variable)

## VISUAL AND MATERIAL CULTURE

### VISUAL AND MATERIAL CULTURE

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Co-ordinator must be obtained.

**VMCS 1201 (3.00 CR)**

**INTRODUCTION TO VISUAL CULTURE: THE POWER OF IMAGES AND VIEWERS**

This course provides a cross-cultural and interdisciplinary introduction to visual culture from ancient civilizations to our contemporary global world. It presents key terms, concepts, and issues that are central to the study of images, visuality, practices of looking, as well as visual media, technology, and culture. It deconstructs the mechanism and impact of visual communication by illuminating how images exert power in specific geographic and cultural contexts, manufacture desire in viewers and consumers, and construct meaning and experience through time. Lectures target the acquisition of visual literacy and the understanding of visual culture around the world. (Format: Lecture 3 hours) (Distribution: Arts-a)

**VMCS 1301 (3.00 CR)**

**INTRODUCTION TO MATERIAL CULTURE: KNOWLEDGE AND ITS TEXTURES**

This course provides a cross-cultural and interdisciplinary introduction to material culture from ancient civilizations to our contemporary global world. It presents key terms, concepts, and issues that are central to the study of materiality, including maker and creation practices, modes of objectification and commodification, and material ways of knowing often set aside by textually-expressed knowledge. By decentring the text and focusing on the material world, this course will allow a better understanding of otherwise overlooked knowledge and experiences. This course offers a range of approaches to material culture drawing from anthropology, archeology, art history, archival and curatorial studies, the history of the book, ethno-history, Indigenous studies, marketing, museology, race studies, sound studies, and women's and gender studies. (Format: Lecture 3 hours) (Distribution: Humanities-b)

**VMCS 1991 (3.00 CR)**

**SPECIAL TOPIC IN VISUAL AND MATERIAL CULTURES**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for VMCS 1991 more than once, provided the subject matter differs.] (Format: Variable)

**VMCS 2991 (3.00 CR)****SPECIAL TOPIC IN VISUAL AND MATERIAL CULTURES****Prereq:** VMCS 1201 or 1301; or permission of the Department

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for VMCS 2991 more than once, provided the subject matter differs.] (Format: Variable)

**VMCS 3201 (3.00 CR)****THE INNOVATIVE GAZE: SNAPSHOTS OF VISUAL CULTURE IN THE CITY****Prereq:** VMCS 1201 or VMCS 1301

This course examines the multifarious relationship between the city and visual culture through the prism of creativity, innovation, and design. Using cultural snapshots of a selection of cities at defining moments in their history, it sheds light on the impact of images and visual expression on urban spaces and the communities inhabiting them. It focuses on culturally important and globally significant cities that foster innovation and embody a unique creative vision in their visual language, in order to reflect on how metropolitan culture and visuality in the public sphere display artistic principles, ideological preoccupations, societal values, and political views through architecture, fashion, food, open-air sculpture, street art, and interior and urban design. It considers the representation of cities in advertising, digital media, illustration, film, music videos, painting, photography, and other visual media. (Format: Integrated Lecture/Laboratory 3 hours)

**VMCS 3991 (3.00 CR)****SPECIAL TOPIC IN VISUAL AND MATERIAL CULTURES****Prereq:** VMCS 1201 or 1301; or permission of the Department

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for VMCS 3991 more than once, provided the subject matter differs.] (Format: Variable)

**VMCS 4991 (3.00 CR)****SPECIAL TOPIC IN VISUAL AND MATERIAL CULTURES****Prereq:** VMCS 1201 or 1301; or permission of the Department

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for VMCS 4991 more than once, provided the subject matter differs.] (Format: Variable)

**WOMEN'S AND GENDER STUDIES**

Women's and Gender Studies is an interdisciplinary program that investigates from critical gender perspectives social, cultural, economic, and political issues. Drawing on a substantial body of scholarship that challenges many of the assumptions and methods of traditional academic disciplines, Women's and Gender Studies creates new perspectives from which all students may analyze such issues as work, health, sexuality, violence, family, race, class, and ethnicity. The curriculum of the Minor in Women's and Gender Studies includes core courses in Women's and Gender Studies and elective courses in the following Departments or Programs: Anthropology, Canadian Studies, Classics, Drama, English, Fine Arts, Geography and Environment, History, International Relations, Modern Languages and Literatures, Music, Philosophy, Political Science, Psychology, Religious Studies, and Sociology. The core courses provide an introduction to the principles of Women's and Gender Studies as well as a more advanced study of the theoretical and methodological approaches of feminism.

**Interdisciplinary B.A. Programs****MINOR in Women's and Gender Studies is 24 credits earned as follows:**

- 3 from WGST 1001
- 3 from WGST 2101 or 2201
- 3 from WGST 3101 or 3111
- 3 from WGST 3121 or 3201
- 3 from WGST 4001, 4201, 4950, 4951, 4991
- 9 from CANA 2311, 3301, CLAS 2521, CLAS/HIST 2051, ENGL 3651, 3661, 4921, FINH 3081, GENV 3111, 4811, HIST 1671, 3251, 3471, 3531, 3801, 4461, 4571, INLR 3001, MUSC 3231, 3261, PHIL 2301, 3741, POLS 3031, 4001, PSYC 3311, 3511, 4311, RELG 1641, 1661, 3411, 3811, 4841, SOCI 2211, 2231, 3101, 4601, WGST 2101, 2201, 3121, 3201, 4201, 4950, 4951, if not used in the 15 WGST credits above, WGST 1991, 2991, 3991, 4991.

or from the following courses in any year when the Program Director approves that their content contains a significant Women's and Gender Studies component: ENGL 3561, FREN 3621, GENV 2221, 2811, 4821, HIST 3361, 4901, PHIL 1611, 3711, RELG 3821, 3911, 3921, 4821, SOCI 3451, 3511

**Note:** Other courses from the following disciplines may also be approved by the Program Director when a significant Women's and Gender Studies component can be demonstrated: Anthropology, Art History, Canadian Studies, Classics, English, French, German, Geography and Environment, Greek Drama, History, International Relations, Latin, Music, Philosophy, Political Science, Psychology, Religious Studies, Spanish, and Sociology.

Students interested in using courses from other disciplines towards this Minor must receive approval in writing from the Program Director during the term in which they are taking the course.

**WOMEN'S AND GENDER STUDIES COURSES**

**Note:** The listing of a course in the Calendar is not a guarantee that the course is offered every year.

**Note:** Students must obtain a grade of at least C- in all courses used to fulfill prerequisite requirements. Otherwise, written permission of the appropriate Department Head or Program Director must be obtained.

**Note:** The following course can be used for the distribution requirement for the Bachelor of Arts and Bachelor of Science degrees: WGST 1001

**WGST 1001 (3.00 CR)**  
**INTRODUCTION TO WOMEN'S AND GENDER STUDIES**

This course introduces the core principles of the discipline of gender analysis and women-centered research and surveys key issues in current Women's and Gender Studies scholarship, including: social construction of sex, gender, race and sexuality; body politics; gender subordination; women's activism; and social change initiatives. (Format: Lecture/Tutorial 3 Hours) (Distribution: Social World-a) (Exclusion: WGST 2001)

**WGST 1991 (3.00 CR)**  
**SPECIAL TOPIC IN WOMEN'S AND GENDER STUDIES**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for WGST 1991 more than once, provided the subject matter differs.] (Format: Variable)

**WGST 2101 (3.00 CR)**  
**GENDER, IDENTITY, AND CULTURE: SEXING THE BODY**

**Prereq:** Second-year standing or WGST 1001; or permission of the Program Director

This course examines human bodies in historical and contemporary socio-political contexts, investigating gender and embodiment both as an expression of individual identity and a production of complex social processes. Drawing upon scholarship on body politics in the interdisciplinary fields of Women's, Gender, and Sexuality Studies, it explores how bodies are simultaneously gendered, raced, classed, sexualized, and politicized through interpersonal, social, and institutional processes, including culture, science, medicine, and globalization. (Format: Lecture/Tutorial 3 Hours)

**WGST 2201 (3.00 CR)**  
**GENDER AND SCIENCE**

**Prereq:** Second-year standing or WGST 1001; or permission of the Program Director

This course focuses on the relationship between scientific institutions and communities that are marginalized by gender, race, colonialism, class, disability, and other social markers. It explores the structural forces that contribute to exclusion and the effects of being seen as an object of scientific inquiry through feminist intersectional and decolonial approaches to the practices of scientific knowledge production. Finally, this course addresses current efforts to create a more inclusive scientific community. (Format: Lecture 3 Hours) (Exclusions: WGST 3991 Gender & Science)

**WGST 2991 (3.00 CR)**  
**SPECIAL TOPIC IN WOMEN'S AND GENDER STUDIES**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for WGST 2991 more than once, provided the subject matter differs.] (Format: Variable)

**WGST 3111 (3.00 CR)**  
**FEMINIST THEORIES**

**Prereq:** Take WGST 1001; 3 credits from WGST 2101, WGST 2201; or permission of the Program Director

This course provides a comparative and critical analysis of various feminist theories developed as explanatory frameworks for the understanding of gendered and other divisions within society. It surveys a range of feminist theoretical traditions, traces the emergence and transformation of central feminist concepts, and investigates the connections between theory and political practice. It examines theoretical frameworks that may include: Black feminist thought, anti-racist and postcolonial feminism, queer theory, trans theory, theories of embodiment, transnational feminist theory, psychoanalytic feminist theory, and decolonial theory. (Format: Seminar 3 Hours) (Exclusions: WGST 3101; WOST 3001)

**WGST 3121 (3.00 CR)**  
**FEMINIST RESEARCH METHODS**

**Prereq:** 3 credits from WGST 2101, WGST 2201; or permission of the Program Director

This course examines feminist critiques and strategies relating to the production of knowledge, with an emphasis on epistemology, decolonization, and community-based research. It introduces the methods, techniques, and ethics involved in feminist research and analysis. The emphasis is both theoretical and practical; students therefore engage in the process of assessing and conducting feminist research. (Format: Lecture 3 Hours) (Exclusions: WGST 3101; WOST 3021)

**WGST 3201 (3.00 CR)**  
**GENDER AND WORK**

**Prereq:** WGST 1001; 3 credits from WGST 2101, WGST 2201; or permission of the Program Director

This course applies a feminist analysis to the study of people at work with the premise that the workplace and the labour market cannot be understood in isolation from the private spheres of the household and the labour of social reproduction. It focuses on different experiences of work across gender, race and ethnicity, and class using an intersectional approach. It draws on interdisciplinary studies in industrial relations and feminist research practice to explore experiences of paid and unpaid work and labour. (Format: Lecture 3 Hours)

**WGST 3991 (3.00 CR)****SPECIAL TOPIC IN WOMEN'S AND GENDER STUDIES**

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for WGST 3991 more than once, provided the subject matter differs.] (Format: Variable)

**WGST 4001 (3.00 CR)****CONTEMPORARY ISSUES IN FEMINISM AND GENDER STUDIES**

**Prereq:** WGST 3101 or 3111; or permission of the Program Director

This course provides opportunity for students to study in considerable depth and detail selected contemporary issues of feminism and gender in a global context. The course may focus on issues such as gender and social movements, politics of difference, theory and praxis debates, anti-feminist backlash, women and social change, femininities and masculinities, and feminist explorations of the body. (Format: Seminar 3 Hours) (Exclusion: WOST 4001)

**WGST 4301 (3.00 CR)****GENDER AND SETTLER COLONIALISM FEMINISM AND GENDER STUDIES**

**Prereq:** WGST 3101 or 3111; or CANA 3301 and 3 additional CANA credits at the 3000 level; or permission of the Program Director

This course focuses on the gendered, racialized, and sexualized dimensions of settler colonialism and Indigenous resurgence. It begins with the recognition that all of our learning takes place on the lands of the Mi'kmaq and Wolastoquyik peoples, and with the acknowledgement that we all have different and specific relationships to this land and these nations. Attending to these relationships and the responsibilities they entail, the central questions this course examines include: How do Indigenous thinkers conceptualize identity, land, and belonging? How do they think and talk about gender, sexuality, and difference? [Note 1: This course is cross-listed as CANA 4301 and may therefore count as 3 credits in either discipline](Format: Seminar 3 Hours) (Exclusions: WGST 4001 18/WI and 19/WI)

**WGST 4950 (6.00 CR)****INDEPENDENT STUDY IN WOMEN'S AND GENDER STUDIES**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for WGST 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**WGST 4951 (3.00 CR)****INDEPENDENT STUDY IN WOMEN'S AND GENDER STUDIES**

This course permits senior students, under the direction of faculty members, to pursue their interest in areas not covered, or not covered in depth, by other courses through a program of independent study. [Note 1: Permission of the Department/Program Advisor. Students must obtain consent of an instructor who is willing to be a supervisor and must register for the course prior to the last day for change of registration in the term during which the course is being taken. Note 2: A program on Independent Study cannot duplicate subject matter covered through regular course offerings. Note 3: Students may register for WGST 4950/51 more than once, provided the subject matter differs.] (Format: Independent Study)

**WGST 4991 (3.00 CR)****SPECIAL TOPIC IN WOMEN'S AND GENDER STUDIES**

**Prereq:** Second-year standing; or permission of the Program Director

This course either focuses on topics not covered by the current course offerings in a department or program or offers the opportunity to pilot a course that is being considered for inclusion in the regular program. [Note 1: Prerequisite set by Department/Program when the topic and level are announced. Note 2: When a Department or Program intends to offer a course under this designation, it must submit course information, normally at least three months in advance, to the Dean. Note 3: Students may register for WGST 4991 more than once, provided the subject matter differs.] (Format: Variable)

## CERTIFICATE PROGRAMS

### Certificate in Visual Literacy and Culture

**Certificate Overview.** Visual literacy is indispensable in our information age and global economy. To be successful in navigating careers and personal lives, twenty-first-century students must acquire the critical and analytical skills required to expertly decode visual communication, describe and interpret images and visual representation, use visual materials proficiently and creatively, and grasp the impact of visual culture. This certificate is thus intended as accreditation for students who develop visual literacy skills in order to enhance their post-graduation employment prospects in industry sectors where images, visuality, and viewing practices play an important role (e.g. the arts, culture, and creative industries; communications and media relations; government and not-for-profit leadership; heritage and conservation; journalism and publishing; tourism; and marketing and advertising). Visual literacy is extremely useful in a range of workplace tasks, such as designing professional presentations and websites, creating efficient systems of organizing verbal and visual information, mapping out collective problem solving, and communicating competently with a wide spectrum of demographics (designated by age, culture, disability, ethnicity, gender, race, etc.). This certificate will also be beneficial to students seeking admission to competitive professional or graduate schools, such as medicine, engineering, and education, which increasingly recognize the significance of an observant eye and visual analysis skills.

### The Certificate in Visual Literacy and Culture is 18 credits earned as follows:

*Foundation:*

6 from VMCS 1201, 3201

*Theoretical, Methodological, Disciplinary:*

3 to 6 from CLAS 2501, 3801, DRAM/ENGL 1701, FINH 2101, 2111, 3041, FREN 3811, HIST 1681, 3831, 4901, PHIL 2401, VMCS 1991, 2991, 3991, 4991

*Experiential, Applied:*

3 to 6 from CANA 2201, COMM 3271, 4301, VMCS 1991, 2991, 3991, 4991

*Geographic, Cultural:*

3 to 6 from CANA 1011, CANA/HIST 2801, 3831, CLAS 3621, 3721, FREN 1811, 1821, GENV 2811, 3321, 3831, GERM 2811, HIST 3361, 3721, SPAN 1801, 1811, 4201, RELG 3311, 3321, VMCS 1991, 2991, 3991, 4991

*Portfolio:*

The portfolio documents the creative process and journey of a performer, curator, or artist according to a set of criteria for content and presentation.

### Certificate in Diversity, Equity, and Inclusion

**Certificate Overview.** The Department of Sociology, Diversity, Equity, and Inclusion Certificate provides students with the opportunity to develop valuable knowledge, methodologies, and applied skills about the important issue of building an inclusive society free from barriers

to full participation and engagement. Students develop their cultural competence by exploring the wide range of human qualities and attributes within a group, organization, or society including dimensions of diversity such as ancestry, culture, ethnicity, gender, gender identity, language, physical and intellectual ability, race, religion, sex, sexuality, and socio-economic status. Courses examine the principles of equity in policies and practices to assess and improve their effectiveness in achieving fair, inclusive, and respectful treatment of all people. Course material reviews historical and contemporary injustices and disadvantages faced by particular groups. Students examine how to create opportunities and reduce disparities in opportunities and outcomes for diverse communities and to assist institutions and organizations in identifying and tackling barriers to create safer environments for marginalized people. Applied projects allow students to develop strategies that facilitate individuals and communities social inclusion in economic, social, cultural, and political dimensions.

### The Diversity, Equity, and Inclusion Certificate is 18 credits earned as follows:

- 9 from SOCI 2111, 2121, 2211, 2221, 2231, 2401, 2501, 2611
- 3 from SOCI 3101, 3511, 3551, 4551, 4561
- 3 from SOCI 3701, 3711, 3731, 3781
- 3 from SOCI 3771, 4701