

Undergraduate Academic Calendar of Saint Mary's University 2018-2019

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Halifax, Nova Scotia
Canada
B3H 3C3

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(902) 420-5101 President
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(902) 496-8191 Vice President Academic & Research
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(902) 420-5490 Associate Vice President Enrolment & Registrar
(902) 496-8169 Associate Vice President Research
(902) 420-5073 Admissions & Recruitment
(902) 420-5582 Service Centre
(902) 420-5081 Studio for Teaching & Learning
(902) 420-5464 Financial Services

Information about Saint Mary's, including this *Academic Calendar*, is available at <http://www.smu.ca/servicecentre/calendar.html>

Updated 1 March 2018

A Brief Guide to Using this *Academic Calendar*

The Academic Calendar is the University's most important publication, and serves many purposes. The table of contents on the following page shows all the details, together with page numbers, but here is brief guide to using this valuable document.

If you are a Prospective Student:

- Review the range of **academic programs** available at Saint Mary's in Section 3. (Saint Mary's University publishes a separate Graduate Academic Calendar.)
- Learn how Saint Mary's University schedules courses over the 12-month academic year by referring to the Academic **Calendar of Events**, which includes key deadlines for course registration and payment of fees.
- Review the **Descriptions of Courses** in Section 4, to learn about the range of topics which may be included in a subject area. This section is a sort of official "menu" from which the departments plan what courses to offer each year. To find out which courses will be offered at a specific time, consult the Academic Timetable on Saint Mary's web site.
- Find information on the **admission requirements** and university regulations which apply to you in Section 2.

If you are a member of the university community – student, staff, or member of faculty:

- Plan your year by referring to the Academic **Calendar of Events**, which gives timelines for each semester, including key dates for registration, application for graduation, and public holidays.
- Look here for information on **Academic Regulations**. Not all university regulations are included here; these are the ones approved by the University Senate, applying to matters such as grades, examinations, and special circumstances. (Section 2) This section also includes a glossary of terms related to those regulations.
- Check on the **requirements for majors**, minors, and concentrations in Section 4. When reviewing the Descriptions of Courses in this section, keep in mind that this is a sort of officially approved "menu" from which the departments plan what courses to offer each year. For details on which

courses will be offered at a specific time, consult the Academic Timetable on Saint Mary's web site.

- Need to know what constitutes a breach of **Academic Integrity**? Consult Section 3.
- Look here for information on **degree requirements**. Keep in mind that there are requirements for a degree or diploma (Section 3) and also requirements for a major, minor, or concentration within that degree (Section 4). As well, make sure that you consult the Academic Calendar for the appropriate academic year.
- Find out about the **academic qualifications** of faculty members, academic officers, and staff, using Section 8.

Inquiries related to specific areas should be directed to the officers indicated below:

Admissions and Recruitment

Telephone: 902-496-8280
Fax: 902-420-5073

Service Centre (Enrolment Services)

Registrar: 902-420-5582
Fax: 902-420-5151

Studio for Teaching and Learning:

Telephone: 902-420-5081
Fax: 902-420-5015

Library

Circulation 902-420-5547
Fax: 902-420-5561

Residence Accommodations

single housing: 902-420-5598
family and graduate housing: 902-420-5589
Fax: 902-496-8107

Scholarships and Student Loans

Telephone: 902-420-5582
Fax: 902-420-5151

Student Affairs

Telephone: 902-420-5761
Fax: 902-491-6248

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A MESSAGE FROM THE PRESIDENT ...

*On behalf of my colleagues, I wish to thank prospective and new students for considering Saint Mary's University in your academic career plans. For returning students, welcome back and thank you for the confidence you expressed in choosing Saint Mary's as **your** University. Our vision is for our students to become citizens of the world as education is a critical investment for you and the future of our increasingly global society. We take our role seriously in providing you with the highest return on your investment.*

As this Academic Calendar will demonstrate, we offer a broad range of academic programs, and are extending the number of graduate programs to add to those currently available. In addition, we offer many interdisciplinary programs and we encourage students to study for minors in other faculties to equip them with a broad range of knowledge and skills. Innovation has always been a hallmark at Saint Mary's and we are continuously upgrading our curricula.

Saint Mary's welcomes students from over 90 countries – a veritable United Nations. This is a tremendous resource for the internationalization of our campus. For our Canadian students, we have opportunities to study/work abroad through a number of exchange agreements and internships. For example, we have exchange agreements for study in France, Germany, Mexico, the U.K. and Australia and we are increasing our funding support for these programs. For those who have graduated, our International Activities office manages a range of internships and Saint Mary's grads have worked in over 36 countries.

At Saint Mary's University students are our primary responsibility and we want to help you achieve your full potential. We established a Centre for New Students to assist in the early days of transition to university. Give the Centre staff a call at (902) 491-8691 if you feel they could help you. We also have a full range of Student Services on campus, including counseling, peer support, the Atlantic Centre for Support of Students with Disabilities and a Medical Centre. There numerous student societies to join too. The Homburg Centre, arena and stadium provide opportunities for involvement in intramurals and varsity athletics as well as staying in shape! We are committed to campus renewal and you will see evidence of this now and in the future.

You will find academic excellence in our programs and instructors and you will find a dedicated and committed staff to support our academic mission. There is vibrancy, a sense of community and commitment on our campus

Saint Mary's is a university very much on the move and thank you again for investing in your studies with us.

*R. Summerby-Murray, Ph.D.
President*

Section

1

General Information

**History
Calendar of Events
Board of Governors and Senate**

History

More Than Two Hundred Years of History

Since its founding in 1802, Saint Mary's University has developed into a modern, urban university with more than 7,200 full and part-time students. It is the oldest English-speaking, Roman Catholic initiated university in Canada. With meagre resources, the Reverend Edmund Burke founded the institution and, on being named Bishop of Nova Scotia, insisted that support for the college be continued as essential in fostering the Catholic community.

In 1841 the Nova Scotian House of Assembly gave formal recognition of the college's academic role and, eleven years later, granted it legal status. The next few years saw a great deal of uncertainty about the survival of the college. However, in 1913 the Christian Brothers of Ireland were asked by the Archdiocese of Halifax to direct the college and its academic programs. Its reputation as a liberal arts institution thrived in these years. Undergraduate programs were widely respected and new instructional programs were initiated, the most notable being the Faculty of Commerce which, when established in 1934, was among the first of its kind in Canada. In 1940 the Upper Province of the Society of Jesus (the Jesuits) was invited to succeed the Christian Brothers as administrators and teachers.

In 1952, the "College" became a "University". For more than thirty years, until the new Act of Incorporation in 1970, the college remained under Jesuit supervision. It established itself in teacher education; initiated the first courses in continuing education in Halifax/Dartmouth; purchased the first computer in Atlantic Canada; and became coeducational. Also, the long-standing emphasis on liberal arts and commerce was complemented by new programs in engineering and science.

The Saint Mary's University Act of 1970 gave legal status to the Board of Governors and Senate. Subject to the powers of the Board, the Senate is responsible for the educational policy of the University. In 1974, faculty members (full-time) formed the Faculty Union which has become an influential voice in the affairs of the University. Part-time faculty members became a separate bargaining unit in 1996.

From the Jesuits and their predecessors, Saint Mary's has inherited a strong commitment to meeting community needs and an equally strong tradition of emphasizing excellence in teaching and excellence in research. During the past three decades Saint Mary's has evolved into a more complex urban university, with a full range of undergraduate programs in Arts, Business, and Science. Master's programs are offered in Atlantic Canada Studies, Criminology, Geography, History, International Development Studies, Theology and Religious Studies, Women and Gender Studies, Astronomy, Applied Psychology, Computing and Data Analytics, Business Administration, Applied Economics, Finance, Management of Co-operatives, and Technology, Entrepreneurship & Innovation. Since 1999, Saint Mary's has introduced doctoral programs in Business Administration (Management), Astronomy, I/O Psychology, and most recently, International Development Studies.

Now a publicly accessible, coeducational institution, functioning with a sense of its tradition, the University also offers pre-professional programs in law, medicine, engineering, theology, dentistry, and architecture. Through the cooperative efforts of the Studio of Teaching and Learning, part-time students study in these programs and in a variety of non-credit executive and professional programs all of which have been rapidly expanding both in numbers and geographic locations.

Over the last several decades this commitment to academic and research excellence has seen the number of full-time faculty with doctoral degrees rise to over 90 percent. Part-time faculty members are recruited on the strength of academic qualifications in addition to the expertise and experience they can bring to the classroom.

More dramatic evidence of faculty enrichment is demonstrated by their research activities. In the last decade, sponsored contract and academic research has increased many-fold. This significant increase reflects the University's firm belief that excellence in both teaching and research is essential for professors and that research is an integral part of the contributions that universities must make to society.

The quality of instruction to students has been a focal point of Saint Mary's University since its founding. This long standing tradition of commitment to excellence in teaching has seen the introduction of new initiatives. The Quality of Teaching Committee and the Centre for Academic and Instructional Development have assisted faculty members by offering workshops on instructional techniques and innovations in teaching methodology. Awards for Teaching and Research Excellence are presented annually to members of faculty.

Students attend day and evening classes both on the 30 acre campus in the south end of Halifax and at off campus locations including the World Trade Centre in downtown Halifax; in Dartmouth; as well as in several other communities. Saint Mary's boasts residence facilities for single and married students, a Students Centre, Science Building, the Patrick Power Library, which is linked via computer to Nova Scotia universities and colleges, and "The Homburg Centre for Health and Wellness".

The Homburg Centre for Health and Wellness officially opened April 24, 2012. It consists of a 23,650 square foot state-of-the-art multi-purpose complex that includes the Centre for the Study of Sport and Health, integrated wellness program space, a large community studio/fitness room, community seminar rooms, a mid-size studio, a small studio, support space, and a show piece entrance that includes open space for students and other groups to gather, converse and study.

The Sobey Building officially opened in November 1998. It provided much needed additional classrooms with the very latest in technology and is home to the Sobey School of Business.

In 2009 a \$25 million expansion and renovation project was completed on the Science Building. In 2010 the Atrium and the Global Learning Commons was completed at a cost of \$17.5 million. The building features a main floor Global Learning Commons - a wireless, student-centered, barrier-free communal learning space that encourages interaction between faculty and staff, and provides more opportunity for community engagement. The second and third floors house teaching and study space, along with space for offices and computational sciences research.

In spring 2011 a total renovation of the McNally Building was completed. The McNally Building is the oldest structure on the campus and home to the Faculty of Arts and administrative offices.

The newest development on campus is the North East Campus Project. The first phase, completed in 2013, includes a 26,000 square-foot development that connects global and local communities to the Saint Mary's campus by providing modern classrooms and facilities for The Language Centre and the Saint Mary's Business Development Centre.

The traditions formed by its founder and early teachers, built upon by the sound educational values of the Christian Brothers, and strengthened by the imaginative leadership of the Jesuits, provide a stable base for future development. Saint Mary's has been innovative in seeking cooperative ventures with other Maritime universities. The results have included the Atlantic Metropolis Centre as well as the Gorsebrook Research Institute which contributes to the understanding of our regional culture within a national context. Our 'internationalization' has seen formal teaching and research agreements signed with universities around the world including China and Japan as well as Mexico and The Republic of The Gambia. The Fred Smithers Centre of Support for Students with Disabilities has grown remarkably over the last several years and provides a variety of support to an increasingly important sector of our student population. It also provides assistance to disabled students studying at other Maritime postsecondary institutions.

Saint Mary's University concentrates on its mission of providing excellence in its service to students and the larger community around the campus. Its reputation is one of quality education on a campus environment where individual development is paramount. Saint Mary's student population is drawn largely from Halifax and Dartmouth with over half of its students from this area. There is also a distinct international aspect to the University with students from many countries including China, Japan, Bermuda, the United States, and Mexico. We are ambitiously pursuing a goal shared by many. It is a vision centered around continued academic excellence in teaching and research, accessibility for all Nova Scotians, strong community outreach, and facilities and instruction for the physically challenged.

In early 2012, the Senate approved a revised Academic Plan entitled *Building a Community of Global Learners: Academic Plan for Saint Mary's University, 2012-2017*, the revised plan was based on campus-wide consultations held in the course of 2011. Key priorities identified in the plan include:

- Enhance Student Learning through Excellence in Teaching
- Enhancing Student Success
- Linking Theory and Practice
- Promoting Research, Creative Activity and Graduate Studies
- Building Thematic Clusters of Teaching and Research
- Enhancing our International Diversity

Memberships

Saint Mary's University is a member of a number of organizations including Association of Universities and Colleges of Canada, Association of Atlantic Universities, and Association of Commonwealth Universities.

Affiliations

Saint Mary's University has been associated with Dalhousie University (formerly DalTech and prior to that the Technical University of Nova Scotia) since 1916, providing the first two years of study leading to the degree of Bachelor of Engineering in civil, electrical, mechanical, mining, metallurgical, chemical, and industrial engineering. At the beginning of the 21st century, Saint Mary's University and the Atlantic School of Theology entered into a formal Memorandum of Agreement concerning future cooperation and new initiatives, most notably a MA in Theology and Religious Studies. This promises many exciting new developments, including a Centre for Ethics as well as cooperative ventures with faculty and students.

University Crest and Motto

The University crest was designed in the 1940s by the Reverend Daniel Fogarty, S.J., the then Dean of Education. Each symbol in the crest has a significance relevant to the various phases and history of the University. On the outer portion of the crest the name and location of the University are inscribed in Latin, and in Roman numerals (1841), the date the University received its charter authorizing it to grant degrees. The book shown above the shield represents learning and knowledge. The inscription on the page of the book is in Latin - "Age Quod Agis". This is the motto of the University which exhorts all those connected with the University to strive to do their best in everything that they do. This quotation is from the Irish Christian Brothers and symbolizes their contribution to the development of the institution. The centre portion of the crest is a shield. The upper part of this has the official seal of the Jesuits with I.H.S. being the Greek initials for Christ's name. Below these initials are the three nails which represent the Crucifixion and surrounding these is the Crown of Thorns.

The two crowns in the lower part of the shield represent a dual loyalty - to the then Dominion of Canada and to the British Commonwealth. Below these crowns is the thistle, emblematic of Nova Scotia's Scottish heritage.

University Colors and Mascot

The official colors of the University are maroon and white.

In 1960 Saint Mary's University chose Huskies as the name for their sports teams. The Siberian Husky became the official mascot for qualities which paralleled the teams' motto, In Pursuit of Excellence. Pound for pound, the

Siberian Husky is the strongest draft dog in existence. A versatile and gentle dog, the Husky is the perfect example of tenacity, drive, and loyalty. Like their namesake, the Saint Mary's Huskies strive for gold. They are willing to work hard and are always attempting to achieve their fullest potential.

The University Mace

The ceremonial mace, which is carried by the Marshal of Convocation at the head of the academic procession, was presented to Saint Mary's in April 1980 and used for the first time at the 1980 Convocation. It symbolizes the University's authority to grant degrees. It was made and presented to the University by Maritime Command in recognition of Saint Mary's alumni killed in both world wars and also serving members of the Canadian Armed Forces who have been students at the University. The mace is made of oak with a cast brass crown and brass plates carrying traditional ceremonial engravings. The plates represent the contribution to Saint Mary's by the Jesuit Fathers, the Christian Brothers of Ireland, the Archdiocese of Halifax, the LaSalle Christian Brothers, the Lay Teachers, and the Armed Forces.

The Presidential Medallion of Office

On 22 October 2000, a Medallion of Office was officially presented to the University and used for the first time at the Installation of Dr. J. Colin Dodds as President. Designed and crafted by James Bradshaw and Bruce Babcock of James Bradshaw Jewelry Design Studios, Inc., Halifax, its centre is a University Gold Medal, traditionally awarded to the top graduating students. It symbolizes the University's deep commitment to academic excellence. It is surrounded by contrasting sterling silver, representing the diversity of the institution's students and of its academic programs. It was generously presented by Mary Eileen Donahoe and her family as a memorial to the late Senator Richard A. Donahoe, Q.C., K.S.G., LL.D.(Hon.), a member of one of the earliest Boards of Governors, in recognition of his career of public service and his love of Saint Mary's.

ACADEMIC CALENDAR OF EVENTS

2018-2019

Registration - Details on registration for the 2018-2019 academic year are published on the Service Centre's webpage www.smu.ca/servicecentre in March 2018.

2018

May

- 7 (Monday) Summer Sessions begin for graduate and undergraduate courses.
 14 - 18 (Monday-Friday) Spring Convocation Week.
 21 (Monday) Administrative Offices closed and no classes – Victoria Day.

June

- 1 (Friday) Deadline for filing applications for fall 2018 Convocation.
 22 (Friday) Last day of classes in First Summer Session (Undergraduate).

July

- 4 (Wednesday) Second Summer Session (Undergraduate) classes begin.

August

- 1 (Wednesday) Deadline for filing applications for winter 2018 Convocation
 6 (Monday) Administrative Offices closed and no classes – Natal Day.
 22 (Wednesday) Last day of classes in Graduate Summer Session and in Second Summer Session (Undergraduate).

September

- 3 (Monday) Administrative Offices closed and no classes – Labour Day.
 4 (Tuesday) Academic year begins.
 5 (Wednesday) **CLASSES BEGIN.**
14 (Friday) (a) Last day for registering and changing in the fall term (September – December).
(b) Last day for final payment of fall term tuition fees.
 28 - 29 (Friday - Saturday) Fall Convocation.

October

- 1 (Monday) Deadline for filing applications for spring 2019 Convocation.
 8 (Monday) Administrative Offices closed and no classes - Thanksgiving Day.

November

- 7 (Wednesday) Last day for withdrawing, without academic penalty, from three (3) credit hour or six (6) credit hour courses taught only in the fall term (Reference: Academic Regulation 16).
 12 (Monday) Administrative Offices closed and no classes – Remembrance Day (alt).
 12 - 18 (Monday-Sunday) Fall Break. No classes.

December

- 3 (Monday) Last day of classes in fall term.
 4 (Tuesday) Study Day. No classes.
 5 (Wednesday) Start of formal final examinations in three (3) credit hour courses and formal mid-year examinations in six (6) credit hour courses.
 8 (Saturday) Patronal Feast of the University. Normally no examinations are scheduled on this day.
 18 (Tuesday) End of final exams and end of the fall term. **Note:** Subject to change should it not be possible to schedule all formal examinations in the designated timeframe.

2019

January

- 8 (Tuesday) **CLASSES RESUME.**
16 (Wednesday) (a) Last day for registering in the winter term (January – April).
(b) Last day for final payment of winter term tuition fees.
 25 (Friday) Winter Convocation.

February

- 12 (Tuesday) Last day for withdrawing, without academic penalty, from six (6) credit hour courses taught from September to April (Reference: Academic Regulation 16).
 18 (Monday) Administrative Offices closed and no classes - Heritage Day.
 19 (Tuesday) - Winter Break. No classes.
 23 (Saturday)

March

- 13 (Wednesday) Last day for withdrawing, without academic penalty, from three (3) credit hour courses or six (6) credit hour courses taught only in the Winter term (Reference: Academic Regulation 16).

April

- 3 (Wednesday) Last day of classes in winter term.
 4 (Thursday) Study day. No classes.
 5 (Friday) Start of formal final examinations.
 18 (Thursday) End of formal final examinations and end of the winter term. **Note:** Subject to change should it not be possible to schedule all formal examinations in the designated timeframe.
 19 (Friday) Administrative Offices closed and no classes - Good Friday.
 22 (Monday) Administrative Offices closed and no classes- Easter Monday.

May

- 6 (Monday) Summer Sessions begin for graduate and undergraduate courses.
 13 - 17 (Monday-Friday) Spring Convocation Week.
 20 (Monday) Administrative Offices closed and no classes – Victoria Day.

June

- 1 (Thursday) Deadline for filing applications for fall 2019 Convocation.
 21 (Friday) Last day of classes in First Summer Session (Undergraduate).

July

- 1 (Monday) Administrative Offices closed and no classes – Canada Day.
 8 (Monday) Second Summer Session (Undergraduate) classes begin.

August

- 1 (Thursday) Deadline for filing applications for winter 2019 Convocation
 5 (Monday) Administrative Offices closed and no classes – Natal Day.
 20 (Tuesday) Last day of classes in Graduate Summer Session and in Second Summer Session (Undergraduate).

Board of Governors

Chairperson

Ms. Karen Oldfield

Vice-Chairperson

Mr. Scott Norton

Members Ex-Officio

Chancellor

Dr. Paul Sobey

Visitor

The Most Reverend Anthony Mancini

President and Vice-Chancellor

Dr. Robert E. Summerby-Murray

University Secretary

TBA

**Members Appointed by the Roman Catholic
Episcopal Corporation**

Mr. Alan Abraham Jr.

Ms. Karen Oldfield

Mr. Bob Gloade

Members Elected by the Alumni Association

Mr. Greg Dickie

Ms. Mary-Lou Donnelly

Ms. Sarah Ferguson

Ms. Jennifer Liu

Ms. Karen Ross

Ms. Mary-Evelyn Ternan

Members Elected by the Academic Staff

Dr. Renee Hulan

Dr. Natalia Kochetova-Kozloski

Dr. Alexandra Dobrowolsky

Dr. Goran Stanivokovic

Dr Danika van Proosdij

Members Elected by the Students

Mr Ossama Nasrallah

Ms Jane Jans

Ms Deeksha Bhaskar

Mr Denis Amirault

Mr Mitchell Archibald

Members Elected by the Board of Governors

Mr. Paul Baxter

Mr. Philip Fraser

Mr. Lawrence Freeman

Dr. Besim Halef

Ms. Karen Henderson

Mr. Michael Lordon

Mr. Joseph Metlege

Mr. Scott Norton

**Members Appointed by the Lieutenant-Governor in
Council**

Mr. Dan Radisuela

Mr. Jamie MacNeil

Observer Elected by Support Staff

Ms. Barbara Bell

Academic Senate

Chairperson

Dr. Madine VanderPlaat

Vice-Chairperson

Dr. Tatjana Takseva

Members Ex-Officio

Dr. Robert E. Summerby-Murray, President

Dr. Malcolm Butler, Vice-President, Academic and Research

Dr. Margaret MacDonald, Dean of Arts

TBA, Dean of the Sobey School of Business

Dr. Steven Smith, Dean of Science

Dr Adam Sarty, Associate Vice President Research and Dean of Graduate Studies and Research

Dr Don Naulls, Associate Vice President (Enrolment Management) and Registrar (acting)

Mr. Tom Brophy, Senior Director, Student Services
TBA, University Librarian

Student Senators

Mr Ossama Nasrallah (President SMUSA)

Ms Lexa Ali (VP Academic Affairs, SMUSA)

Mr Oyindamola Oshobu

Ms Deeksha Bhaskar,

Ms Valerie Caswell

Senate Office

Barb Bell

Members Elected

To August 2020

Dr Catherine Laughlin

Dr Tatjana Takseva

Dr Jason Grek Martin

Dr Abdul-Rahman Khokhar

Dr Lori Francis

To August 2019

Dr. Lyndan Warner

Dr Myles McCallum

Dr Madine VanderPlatt

Dr Mohammad Rahaman

Dr Daniel Hall

To August 2018

Dr. Gugu Hlongwane

Dr. Don Naulls

Dr. Tanya Peckmann

Dr. Veronica Stinson

Dr. Karen Grandy

**Academic Integrity and
Student Responsibility**

Academic Regulations

Section

2

Recruitment & Admission Services

Admissions & Recruitment is responsible for the promotion of Saint Mary's programs and services to prospective students, making undergraduate admissions decisions, and awarding Entrance Scholarships.

Advisor	420-5415	recruitment@smu.ca
Application status	491-6438	admission.status@smu.ca
Scholarships	420-5415	recruitment@smu.ca
Student loans	420-5582	financial.aid@smu.ca
Residence	420-5598	residence.life@smu.ca

Students seeking program information and/or applications can find complete details at:

<http://www.smu.ca/futurestudents/welcome>

To book a campus tour, please contact us at: 902-420-5682 or email campustours@smu.ca

Visitors to our campus are advised to park on Robie Street, and enter through the McNally Main Entrance (unless otherwise instructed) where you will be met by a student ambassador. Please note that Saturday tours may not be as comprehensive as week day tours, as some areas are not accessible.

Campus tours are normally available

Monday	10:00 a.m.
Tuesday	4:00 p.m.
Wednesday	2:30 p.m.
Thursday	1:00 p.m.
Friday	10:00 a.m. and 1:00 p.m.

Each tour is approximately 60 minutes in length. Participants have the opportunity to visit our classrooms, library, bookstore, residences, athletics facilities and dining halls. One week advance booking is recommended.

Centre for New Students - New School, New People, New Place

As a new student at Saint Mary's, you may have a lot of questions you need answered. That's what the Centre for New Students is for - to help you find answers to your questions. Located in the main entrance of the McNally Building, the Centre for New Students welcomes new and prospective students. At the Centre, students can be linked with the appropriate academic department, support services, or given information about what the Saint Mary's community has to offer.

The Centre for New Students provides:

- Pre-admission information for high school students interested in full-time or part-time studies.
- A "home base" information area for all new students once they arrive on campus.
- Referrals to the appropriate academic, administrative or support services.
- Assistance for new students in understanding the course selection process and determining their academic timetable.

Students are invited to drop by anytime to chat or to take advantage of the many brochures and other publications designed to help with the transition to university life at Saint Mary's University.

If you would like to schedule an appointment with the Centre for New Students, please call 902-491-8691 or e-mail us at cns@smu.ca

Admissions Information:

Students seeking admission to an undergraduate program at Saint Mary's University can apply online or use a paper application. Details can be found at www.smu.ca/apply

Written correspondence should be sent to:

Systems & Records
Saint Mary's University
923 Robie St.
Halifax, Nova Scotia B3H 3C3

Telephone: 902-420-5415
Fax: 902-496-8100

1. Procedures for Admission to Undergraduate Programs

- a. **Admission Timelines:** There are four admission terms: September, January, May and July.

Completed applications are considered on an ongoing basis and students can expect to receive a reply within one to two weeks of receipt of the application and all supporting documents.

"International" students should apply early enough to obtain their study permit and "Transfer" students must ensure that official transcript(s) arrive in the Admissions Office at least 4 weeks prior to the beginning of the term start date.

- b. **Documents:** Applicants should ask their high school to submit official transcripts of final grades. Applicants who have completed courses at another post-secondary educational institution must request an official transcript be sent to Saint Mary's University. Failure to report all institutions attended may result in dismissal from the University.
- c. **Former Saint Mary's University students:** Students not enrolled in the previous academic year must re-apply. If accepted, students will be re-admitted to the program they were previously enrolled in.

2. Requirements for Admission to Undergraduate Programs

a. General Considerations

Possession of the minimum requirements does not establish the right of an applicant to be admitted or readmitted to the University. The University reserves the right to accept or reject any applicant.

b. Canadian High Schools

Students are required to have completed Grade 12 level university preparatory English and 4 other university preparatory courses. The overall average should be at least 70% with no grade below 60%. Specific program requirements are as follows:

Bachelor of Arts

- English
- 4 other academic university preparatory courses

Bachelor of Environmental Studies

- English
- 4 other academic university preparatory courses

Bachelor of Commerce

- English
- Academic Mathematics
- 3 other academic university preparatory courses

Bachelor of Science

- English
- Pre-calculus Mathematics
- 1 Science
- 2 other academic university preparatory course

Diploma in Engineering

- English
- Pre-calculus Mathematics
- Chemistry
- Physics
- 1 other academic university preparatory course

c. International Baccalaureate (IB) Diploma

Students may be admitted if they have completed the IB Diploma with a total score of 24 points and a minimum grade of 3 in required courses. Specific course requirements are the same as those in 2b above.

Students who have scores of 5, 6 or 7 in HL courses are eligible to receive university credit for these courses. Students with total points of 30 or above may receive 30 credit hours of university credit.

Students with a combination of IB Diploma courses and regular courses will be considered for admission if they meet the specific course requirements as in 2b above.

d. Quebec

In order to be considered for admission, students must complete one year of CEGEP and satisfy the specific subject requirements as noted above in 2b. Credits for students with two years of CEGEP will be assessed separately.

e. Access Program

Canadian high school graduates who do not satisfy the normal admission requirements for their chosen program may be eligible for admission to the Access Program. Students must demonstrate strong potential for success in university studies. If admitted, students must comply with any additional program requirements as specified by their Dean. Students should contact the Admissions and Recruitment Office for details on the application process.

f. American School System

- (i) In order to be considered for admission, students must complete Grade 12 with 16 points. Students seeking admission to Arts must have 4 points in English and 12 points in other academic subjects. Students seeking admission to Engineering and Science must have 3 points in mathematics and at least 3 points in science subjects. Students seeking admission to Commerce must have 3 points in mathematics.
- (ii) Students must arrange to provide the Admissions Office with a high school transcript, and SAT score results.

g. British Patterned System of Education

For students studying a British patterned curriculum (i.e. CXC, CAPE, AICE, GCE, GCSE, IGCSE or WASSCE) must meet the following requirements:

- (i) Students must pass at least five subjects, two of which must be at the Advanced Level, and satisfy the specific subject requirements in 2b. Students who achieve above average results in a minimum of five subjects will be considered for admission.
- (ii) Students who receive a final grade of A, B or C in approved GCE A Level examined subjects will be eligible for advanced standing credit, to a maximum of 18 credit hours. The official examination certificate from one of the examination boards ((AQA, OCR, Edexcel, WJEC and CCEA) must be sent to the Admissions Office.
- (iii) Students who receive a final grade of I, II or III in approved CAPE Advanced Level examined subjects will be eligible for advanced standing credit, to a maximum of 18 credit hours.

h. Other Countries

For countries with education systems other than those above, the general requirements for admission are comparable to those used in the country from which the student is applying. Course requirements for each program are comparable to those in 2b, except that we will accept a language course in the student's native language in lieu of English language.

i. Advanced Placement Examinations

Students with grades of 3, 4 or 5 on Advanced Placement courses are eligible to receive up to 18 credit hours of university credit.

j. Transfer Students

Students who have been enrolled in an academic program at another university are normally required to have achieved a minimum average of C. If admitted, transfer students may receive advanced standing credit hour recognition in conformity with the principles and procedures stated in Academic Regulation 20. For all courses from non-Canadian post-secondary institutions, detailed course

syllabus and/or course outlines descriptions must be submitted before any advanced standing will be evaluated. Failure to report all institutions previously attended will result in dismissal from the University.

k. Mature Students

To qualify for admission as a mature student, the applicant must be at least twenty-two years of age and must show, through educational upgrading, work experience or community volunteer work, ability to benefit from university level education. Normally, mature applicants must have been out of school for at least five years.

l. Language Requirement

Students whose first language is not English, and who have not attended an English language secondary school, are required to take one of the following standardized English language proficiency tests.

- Test of English as a Foreign Language (TOEFL)
 - minimum 550 on paper-based
 - minimum iBT 80, with no band below 20
- International Test of English Language Testing System (IELTS) – minimum 6.5 with no individual score below 6.0
- CanTEST – minimum 4.5 with no individual score below 4.0
- Canadian Academic English Language Assessment (CAEL) – minimum 60 with no individual band below 50
- University of Cambridge ESOL Examinations Certificate of Advanced English (CAE) with grade of A, B or C
- Pearson PTE score of 58
- English for Academic Purposes Level 6 administered by the TESL Centre at Saint Mary's University
- Student has completed three years in a Canadian secondary school where the language of instruction and examination is English

3. Procedures for Other Admission Categories

a. Open Studies Student

- (i) Individuals interested in taking one or more courses at the University without being registered in an academic program can seek admission as an open studies student. Such students must meet the stated prerequisites for the course(s) for which they register. Students may take no more than thirty (30) credit hours as open studies students. If open studies students wish to continue to study at Saint Mary's beyond thirty (30) credit hours, they must formally be admitted to an academic program. Students who are subsequently admitted to academic programs from an open studies status may count the university credit hours that they have earned as open studies students. All courses attempted at the University will remain a part of the students' permanent records.
- (ii) Under special circumstances and with the permission of the appropriate Dean, high school students may be admitted to enroll as open studies students in Saint Mary's courses for which they have the necessary prerequisites.

- (iii) Open Studies students must apply through the Admissions Office. A separate application is required for each academic year or summer session(s) in which the student is enrolled with this admission basis.

b. Upgrading Student

Students who already hold a degree or professional certificate may enroll in a course(s) to upgrade their qualifications. Students are required to follow normal registration procedures. Such students must meet the stated prerequisites for the course(s) for which they register. For this admission category, a separate application is required for each academic year or summer session. The maximum number of courses in which a student is permitted to register under this admission category is thirty (30) credit hours. The Dean of the Faculty in which a course(s) is offered may authorize an additional course(s) over this limit.

c. Auditing

Students who are interested in auditing a course (see Academic Regulation 2 below) are required to apply for admission. Students are required to follow normal registration procedures and pay regular tuition fees. These students must meet any stated prerequisites for the course(s) for which they register.

d. Visiting Student on a Letter of Permission

Students currently enrolled at another institution, who have letters of permission to take courses at Saint Mary's University for transfer of credit hours to their home institution must apply for admission as a Visiting Student. Students are required to follow normal registration procedures. In addition, these students must file a Letter of Permission with the Admissions Office at Saint Mary's. Visiting students from institutions in Halifax will have their grades sent automatically to their home institution. All other students must formally request transcripts to be sent to their home institution. This can be done at the Service Centre. Saint Mary's shall not be held responsible for meeting the deadlines for submission of grades of other universities.

4. Graduate Admission

Admission to a graduate program at the University is covered in the *Graduate Academic Calendar*.

5. Entrance Scholarship / Bursary Program

See this link for more information:

<http://www.smu.ca/future-students/cs-scholarships-and-awards.html>

Entrance Awards

We understand that financing your education can be challenging, but remember, it's an investment in your future. We are committed to ensuring your success by providing \$4.2 million in scholarships, bursaries, and awards each year to students.

Renewable Entrance Scholarships: Saint Mary's University guarantees a minimum total scholarship offer to any high school graduate with a Scholarship Average of 80% and higher. Apply by March 15 to be automatically

considered. Students with an 80% average and above who apply by March 15 are also guaranteed a space in residence.

\$14,000 total value/\$3,500 per year (renewable):
Scholarship Average 95%+

\$8,000 total value/ \$2,000 per year (renewable):
Scholarship Average 90-94.99%
If the recipient achieves a GPA of 4.0 out of 4.3 or more in an academic year, the award will increase for the same year.

\$4,000 total value /\$1,000 (renewable):
Scholarship Average 85-89.99%
If the recipient achieves a GPA of 3.8 out of 4.3 or more in an academic year, the award will increase for the same year.

\$3,500 total value/\$500 (renewable):
Scholarship Average 80-84.99%
\$500 for the first year and \$1,000 per year for three additional years

The award will be continued during the recipient's undergraduate program provided a minimum 3.67 grade point average is achieved each year in the required number of credit hours.

Course Load Requirements for Renewable Entrance Awards:

1st Year Students admitted in September must complete a minimum of 24 credit hours by April 30th.

Returning and transfer students must complete 30 credit hours in the preceding 12 Month Period of Study May 1 to April 30.

Note: All courses taken within this time frame are used for GPA calculations. Successful recipients must be registered as full-time (9 credit hours per semester) at Saint Mary's University in the following academic year. No application is required.

Entrance Scholarships (renewable) are also awarded to high school students who begin their studies in January.

Students who apply after March 15 will be considered for Entrance Scholarships as resources permit.

Saint Mary's University encourages and rewards continuous improvement. Students may be eligible for a higher valued Entrance Scholarship should their final grades place them in a higher scholarship band. Students may even be considered for an Entrance Scholarship if they did not receive one upon application. If applicable, students should request reassessment or consideration by July 31.

To calculate a Scholarship Average: A scholarship average is determined by using the admission average then adding bonus points for AP, IB, or grade 12 enriched courses. Scholarship averages are calculated to two decimal points and are not rounded. Please note that Saint Mary's calculates an admission average by using the five required courses for the program the student has applied for. Averages may vary from one program to another.

Transfer (Achievement) Scholarships: Saint Mary's University awards Entrance Scholarships to transfer students who:

- Have obtained a minimum GPA of 3.67 out of 4.3 in a minimum of 30 credit hours of full time enrollment in their previous university;
- Begin their studies in September;
- Register in a minimum of 30 credit hours and;
- Transfer from a Canadian university or a university outside Canada where Saint Mary's University has established a formal articulation agreement.

Students will be considered for these scholarships if all of the above information is received by March 1st

Presidential Scholarships - \$36,000 total value/ \$9,000 per year (renewable)

Santamarian Scholarships - \$20,000 total value/ \$5,000 per year (renewable)

A limited number of Presidential and Santamarian Scholarships are awarded on the basis of:

- A very high aggregate score (as calculated by the Admissions Office). Successful candidates typically have a Scholarship average of 95% or higher or predictor IB score of 36 or higher. Recipients of these awards will be determined by their overall placement in relation to other candidates.
- A résumé, which should include; any involvement in community service, participation in student government, athletic achievements, extra-curricular activities and volunteer or paid work.

The Presidential/Santamarian Recommendation Form can be downloaded from the Saint Mary's University web site <http://www.smu.ca/scholarships> or obtained by telephoning the Admissions Office at 902.420.5415.

Named Entrance Awards

International Baccalaureate Scholarship- \$32,000 total value/ \$8,000 per year (renewable)

An International Baccalaureate Recommendation Form is to be completed by the IB Coordinator when the overall predictor score is available. Diploma candidates will be considered for this scholarship when this form is received by the Admissions Office, Saint Mary's University. Please fax no later than March 15. Fax: 902.496.8100.

The award is available to both domestic and international IB Diploma candidates. It is awarded on the basis of an overall predictor score of 36 or above

Applicants should also include a résumé with information on such things as involvement in community service, participation in student government and athletic achievement. In addition, the completed International Baccalaureate Recommendation Form must be submitted under separate cover, by the high school IB Coordinator.

Recipients of this award will be determined by their overall placement in relation to other Diploma candidates. A candidate's overall ranking will be determined by the Admissions Office.

A minimum grade point average of 3.8 is required for renewal of this scholarship.

Note: The deadline for all Presidential, Santamarian and International Baccalaureate Scholarship consideration is March 15 (Only applications accompanied by supporting documentation are considered). Scholarships are announced no later than April 15.

Named Entrance Awards

Saint Mary's University offers a number of prestigious Named Entrance Scholarship/ Bursary awards. These awards are open to potential high school graduates. The Named Entrance Scholarship/Bursary application form is available online at:

www.smu.ca/scholarships/entrance

Note: Students will be considered for the most appropriate award; therefore no additional application is required.

The deadline for Named Entrance Scholarship/Bursary consideration is March 1st (Only complete applications are considered). Scholarships are announced no later than April 15.

For information on scholarships and admission status, please contact admission.status@smu.ca.

Academic Integrity and Student Responsibility

The objectives of the University as defined in the Saint Mary's University Act, 1970, include:

1. to promote and disseminate learning and knowledge.
2. to provide an atmosphere of freedom, responsibility and mutual respect in the University community, and,
3. to aid in the improvement of society in all ways consistent with these objects.

More recently, the University has defined among its Vision, Mission and Core Values as:

Vision

Saint Mary's, building on its strong tradition of accessibility and community engagement, will be the University of choice for aspiring citizens of the world.

Mission

The mission of Saint Mary's University is to offer undergraduate, graduate, and continuing education programs; to engage in research and disseminate its results; and to serve the community from the local to the international level.

Core Values

Saint Mary's University addresses its vision and mission in the context of all of its values:

- In achieving its mission, the Saint Mary's community is guided by core values of academic integrity, the pursuit of knowledge, responsiveness to community needs, openness to change, concerns for a just and civil society, and fiscal responsibility.
- The University is committed to accessibility, diversity and the provision of a positive and supportive learning environment through the effective integration of teaching and research.
- Through promoting the importance of critical enquiry, leadership, teamwork and global awareness, we aim to prepare students for responsible and rewarding lives and to remain engaged with our alumni worldwide.
- We recognize the importance of the contribution and growth of each individual in the University's success.
- Saint Mary's welcomes mutually beneficial partnerships and strategic alliances with all levels of government, with other educational institutions, non-government institutions and the private sector.

The above guide the University in how it conducts its affairs. Two key policies of the University are Academic Regulation 19, governing Academic Integrity, and the Student Code of Conduct governing non-academic standards of behaviour.

Academic Integrity (Academic Regulation 19)

An academic community flourishes when its members are committed to these fundamental values:

- 1. HONESTY:** An academic community of integrity advances the quest for truth and knowledge by requiring intellectual and personal honesty in learning, teaching, research and service.
- 2. TRUST:** An academic community of integrity fosters a climate of mutual trust, encourages the free exchange of ideas, and enables all to reach their highest potential.
- 3. FAIRNESS:** An academic community of integrity establishes clear standards, practices, and procedures and expects fairness in the interactions of students, faculty, and administrators.
- 4. RESPECT:** An academic community of integrity recognizes the participatory nature of the learning process and honours and respects a wide range of opinions and ideas.
- 5. RESPONSIBILITY:** An academic community of integrity upholds personal accountability and depends upon action in the face of wrongdoing¹.

¹ The Fundamental Values of Academic Integrity, Center for Academic Integrity, Duke University (www.academicintegrity.org)

University students are expected to have a reasonable measure of self-discipline and maturity. While the University's teaching resources are available for help and guidance, and instructors and staff will make reasonable efforts to assist students with academic or other problems, the final responsibility for success or failure in academic studies rests with the students.

At times there may be considerable pressure to achieve high grades. Some students may be tempted to obtain grades by dishonest means. The integrity of the University and of the degrees it awards are compromised by practices such as cheating and plagiarism. The University does not condone such acts under any circumstances and will take appropriate disciplinary action.

Examples of Academic Offences

In April of 2005, the Quality of Teaching Committee Sub-Committee on Academic Integrity released a comprehensive report on academic integrity at Saint Mary's. The following examples of academic offences, while not exhaustive, were compiled from information contained in this report.

Plagiarism – "The presentation of words, ideas or techniques of another as one's own. Plagiarism is not restricted to literary works and applies to all forms of information or ideas that belong to another (e.g., computer

programs, mathematical solutions, scientific experiments, graphical images, or data)".

Examples of plagiarism include:

- quoting, paraphrasing, or summarizing text without proper acknowledgment;
- paraphrasing too closely (e.g., changing only a few words or simply rearranging the text);
- downloading all or part of a paper, journal article, or book from the Internet or a library database and presenting it as one's own work;
- purchasing documentation and presenting it as one's own work;
- sharing papers including the selling of essays, tests, or other assignments.

Cheating – "The attempt to secure a grade by unethical means. Knowingly assisting someone to cheat is itself cheating".

Examples of cheating include:

- impersonating someone during a test or exam;
- copying or sharing information during a test or exam;
- using or possessing unauthorized materials (e.g., notes, books, calculators) during a test or exam;
- obtaining or looking at a copy of a test or exam before it is administered;
- improper use of technology (e.g., Personal Digital Assistants to store and retrieve information during an exam);
- unauthorized use of communication technology (e.g.: cell phones, pagers, Blackberries, etc.);
- unauthorized collaboration between students when individual work is required.
- submitting the same work for credit in more than one course without the permission of the instructors involved;

Falsification – "It is an offence to falsify any academic record or to use a falsified record".

Examples of falsification include:

- submitting a false excuse for missing a class, exam, etc. (e.g., forging a medical or death certificate);
- falsifying course work (e.g., altering or making up data, using fake citations in a bibliography);
- changing the answers on a returned assignment and resubmitting it to be reevaluated;
- submitting false information on a university admission form or other documentation;
- misrepresentation of knowledge of a language by providing inaccurate or incomplete information about one's linguistic educational history;
- non-disclosure of previous post-secondary enrolment;
- presentation of another's credentials as one's own.

Tampering – "It is an offence to tamper with University library materials or computer system resources in any way which would deprive others of their use".

Examples of tampering include:

- destroying, hiding, or stealing library materials;
- altering or destroying university computer programs or files without authorization;
- accessing and altering official records without authorization.

Assisting someone in the commission of dishonest behavior is an offence subject to penalty.

General Procedures

When a member of the University community (faculty, staff, or student) believes that an academic offence has been committed, s/he shall make a written submission to the department chairperson, Dean and Registrar. The Registrar will advise the instructor whether this is the first instance of academic dishonesty.

Type One Resolution

In the case of a first documented instance of dishonesty that would normally carry a penalty of zero in the piece of work triggering discipline, the instructor (Complainant) may choose to resolve the complaint with the student (Respondent) using the Type One Resolution process. If the student and instructor mutually agree to a penalty of a reduction in grade (e.g., a grade of zero on the assignment), resubmission of the assignment in question, completion of a new assignment, or other resolution, then this decision is to be communicated in writing to the student, chairperson, Dean and Registrar.

In the case of a first documented instance of dishonesty, where the faculty member has imposed a penalty of a reduction in grade, but the instructor has not met with the student to make a Type One Resolution, the Registrar will notify the student, in writing, of the accusation and action. The student will be advised that this can be challenged by referring the matter to the Senate Academic Discipline Committee. If the Student does not reply within one month, it shall be deemed to be resolved.

All incidents and actions are to be submitted in writing to the Registrar. Faculty may choose to document the incident by using the Incident Report Form available from the Service Centre. If the student agrees to the penalty they must indicate that in writing. Students may not appeal decisions that were agreed to through the Type One process. Documentation of all incidents resolved through the Type One Resolution process shall be kept in the student's official file.

Type Two Resolution

All cases that cannot be resolved by the Type One process shall be resolved by the Senate Academic Discipline Committee in accordance with the procedures for resolution of Type Two complaints (see below).

Senate Academic Discipline Committee

Composition

The Committee is comprised of nine (9) representatives of the Faculty and three (3) representatives of the student body. The Faculty representatives are elected by Senate for a three (3) year term. There shall be three (3) Faculty representatives from each of the Faculties of Arts, Commerce and Science, with no two (2) Faculty representatives from the same Department. The student

representatives shall be appointed by the Students Association. The Chair of the Committee shall be a Faculty representative chosen by a vote of the majority of the Committee. The Committee members shall participate in adjudication training annually.

Formal Resolution of Academic Discipline Complaints

In cases that cannot be resolved by the Type One process, the Senate Academic Discipline Committee shall:

- Consider all complaints or allegations in relation to offences or irregularities of an academic nature at both the undergraduate and graduate levels, including but not limited to, those relating to admissions procedures, evaluation procedures, second offences of plagiarism, cheating and other academic dishonesty. The Committee may impose penalties in cases where the Committee finds an offence or irregularity has occurred;
- Have the power to discipline a student who, before or during the disciplinary process involving him or her, but prior to a Hearing or adjudication, has:
 - been compelled to withdraw academically;
 - chosen to withdraw from the University prior to being disciplined; or
 - chosen not to register at the University.
- Assume jurisdiction when a complaint or allegation in relation to offences or irregularities of an academic nature is brought to its attention by the Registrar. Complaints or allegations may be made by Faculty or other evaluators of academic work done by students. The Registrar will provide documentation to the Senate Office. Four copies will be generated and forwarded to the Chair of the Committee.

The Hearing Panel

Upon notification by the Senate Office of an allegation or complaint the Chair of the Committee shall appoint a Hearing Panel from the members of the Committee to hear the allegation or complaint. A Hearing Panel is comprised of two (2) Faculty members and one (1) student. One of the Faculty members shall be from the Faculty in which the offence occurred but not the same department and shall serve as Chair.

Procedures for Type Two Complaints

1. For those cases that cannot be resolved by the Type One process, or the student wishes to challenge the accusation of dishonesty, the Respondent (i.e. the student) shall file a written notice seeking access to the Type Two Resolution process within five (5) working days of receiving notification from the Registrar that there has been a penalty due to a plagiarism incident or allegation, but in no case later than 10 days following the end of the term in which the penalty was applied.
2. The Registrar shall then provide written notice that the Respondent is seeking access to the Type Two Resolution process to:

- (a) the Senate Office;
 - (b) the Department Chairperson and Dean of the Faculty from which the Complaint emanates;
 - (c) the Dean of the Faculty in which the student is enrolled; and
 - (d) the student.
3. The Senate Office shall transmit four copies of the case documentation to the Chair of the Senate Academic Discipline Committee (or the Chair's designate). This case documentation may include, but is not limited to:
 - (a) Copies of the material containing instances of plagiarism or evidence of cheating;
 - (b) Written submission to department chairperson, Dean and Registrar;
 - (c) Any documentation relating to the Type One Resolution attempt; and
 - (d) Notice of the Respondent seeking Type Two Resolution of the complaint.
 4. The Chair of the Senate Academic Discipline Committee shall appoint the members of the Hearing Panel to hear and determine the complaint if the Respondent has made a request for an in person Hearing in their notice of seeking access to the Type Two Resolution process.
 5. The Chair of the Hearing Panel shall:
 - (a) request the parties to provide the Hearing Panel with written submissions as set out in paragraph 6. Below. Where a Hearing in person is requested, the Chair will schedule a Hearing within thirty (30) calendar days of the filing of the Type Two Resolution request and shall notify both parties of the date. The parties shall provide the information requested by the Chair.
 6. The written submissions of the parties shall contain:
 - (a) copies of all documents relevant to the Hearing; and
 - (b) a written statement of the Complainant's (e.g. the faculty members involved) position.
 7. The Complainant shall submit his or her written submission within five (5) working days of being requested to do so by the Chair.
 8. The Respondent shall make a written submission within five (5) working days of receiving the Complainant's submission.
 9. The Chair shall supply copies of all submissions received to both parties to the Complaint within three (3) working days of receiving the submissions.
 10. If a party intends to be represented or assisted by a lawyer or other person, he/she must inform the Chair at least two working days prior to the Hearing and the Chair will inform the opposing party and allow them time to arrange representation if desired. In such case, a deferral of the hearing of up to five (5) working days may be requested.

11. Where a Hearing in person is held, normally the Complainant and Respondent will be present in person. If reasonable attempts to locate a party have been unsuccessful, the Hearing may take place in his/her absence.
12. Where a Hearing in person is held, the Hearing Panel shall regulate as it considers appropriate in order to achieve an orderly, fair and expeditious resolution of the complaint, with each party to the complaint being given an opportunity to present all relevant evidence and submissions that it wishes to bring forward, an opportunity to comment on the presentations of the other party, and an opportunity to put questions to the other party, directly, or through the Panel.
13. Whether or not a Hearing in person is held, it is the responsibility of the parties to present to the Panel all relevant evidence and submissions that it wishes to bring forward. In addition to considering all such evidence and submissions, the Hearing Panel may consider relevant evidence and submissions from other sources and, on its own initiative, solicit additional information and act upon it, provided that the parties are apprised of the additional evidence, submissions, and information, with an opportunity to respond.
14. The Hearing shall be *in camera*. All evidence presented and heard in a Hearing will be kept strictly confidential.
15. The Hearing Panel may specify any remedy that it considers appropriate and that would be within the power of Senate to grant.
16. Decisions of the Hearing Panel shall be made by majority vote. In weighing evidence, the Committee shall base its decisions on “the balance of probabilities”.
17. The Chair of the Hearing Panel shall forward the decision of the Hearing Panel to the Chair of the Academic Discipline Committee. The Chair will record the decision and forward the Hearing Panel’s decision to the Senate Office and the Registrar. The Registrar shall then notify the parties to the Hearing of the decision and will also inform the individuals identified in paragraph 2.
18. If any party to a Complaint fails to comply with these procedures or with any request for information after having been given a reasonable opportunity to do so, the Hearing Panel may, in its discretion, deal with the Complaint in a manner adverse to the interests of the party who has failed to comply.

Penalties

The Hearing Panel may impose the following penalties of an academic nature and, without restricting the generality of the foregoing, may include any one or more of:

- notation of the fact of discipline on the offender’s transcript for a period of one (1) or more years;
- repeat of the assignment that triggered the discipline;

- a failing grade or mark or assessment in the piece of work triggering the discipline;
- failure of the class or course;
- dismissal for an academic term or year (to a maximum dismissal of three (3) academic years);
- expulsion from the University;
- loss of a current or continuing scholarship, or both, or loss of eligibility to receive or maintain scholarships, prizes or bursaries;
- removal from the Dean’s list;
- reduction in grade; and
- revocation of degree, certificate or diploma.

Appeals

An appeal from the decisions of the Senate Academic Discipline Committee may be made to the Senate Academic Discipline Appeal Board on the following grounds:

- a. A failure to follow the “rules of natural justice”;
- b. A failure to follow University rules, regulations or policies.

The rules of natural justice require that decisions are made by a fair process. The nature and context of the decision being made are important in determining what is a fair process. The rules of natural justice include the right to be heard and the right to an unbiased decision maker.

The processes for filing an appeal are found in the terms of reference of the Senate Academic Discipline Appeal Board.

Senate Academic Discipline Appeal Board

Composition

The Senate Academic Discipline Appeal Board is comprised of 6 representatives of the Faculty and 2 representatives of the student body. The Faculty representatives are elected by Senate for a 3-year term. There shall be 2 Faculty representatives from each of the Faculties of Arts, Commerce and Science, with no 2 Faculty representatives from the same Department. The student representatives shall be appointed by the Students Association. The Chair of the Board shall be a Faculty representative chosen by a vote of the majority of the Board. The Board members shall participate in adjudication training annually.

Function

The Senate Academic Discipline Appeal Board shall:

1. Hear appeals from decisions of the Senate Academic Discipline Committee on the following grounds:
 - (a) a failure to follow the “rules of natural justice”,
 - (b) a failure to follow University rules, regulations or policies.
2. Have the responsibility to ensure the execution of its decisions.

Procedures

Initiation of the Appeal

1. Either party to the original complaint may initiate an appeal under this policy by delivering a Notice of Appeal to the Registrar.
2. The Registrar will forward the Notice of Appeal to:
 - a. the Department Chairperson and Dean of the Faculty from which the original complaint emanated;
 - b. the Dean of the Faculty in which the student is enrolled; and
 - c. both parties to the original complaint.

The Notice of Appeal shall be delivered not later than ten (10) working days from the date a final decision being appealed has been communicated in writing to the student. Thereafter no appeal may be brought.

Appointment of an Appeal Board

Upon receipt of a Notice of Appeal, the Registrar shall send a copy of it to the Chairperson of the Senate Academic Discipline Appeal Board. If the Chairperson concludes that the appeal involves the permissible grounds for appeal as set out herein, an Appeal Hearing Panel shall be constituted to hear the appeal. The Chair of the Board shall appoint an Appeal Hearing Panel from the members of the Committee to hear the appeal. An Appeal Hearing Panel is comprised of two (2) Faculty members and one (1) student. One (1) of the Faculty members shall be from the Faculty in which the offence occurred but not the same department and shall serve as Chair.

Appeal Hearing Panel Procedure

1. The Appeal Hearing Panel shall be convened to hear the appeal as soon as practical, but not later than fifteen (15) working days after it is constituted or such later date as is acceptable to the Appellant and Respondent.
2. The Appeal Hearing Panel shall determine its procedures subject to the following:
 - a. all parties involved shall be given adequate notice and full opportunity to participate;
 - b. the basis of the appeal shall be presented by the person who made the appeal (the Appellant) or person appointed by such person;
 - c. the Appellant or Respondent shall be entitled to be represented by one other person, including legal counsel;
 - d. evidence supporting or rebutting the appeal may be given by witnesses;
 - e. witnesses may be questioned by the Appellant, the Appellant's representative, the Respondent, the Respondents representative, the Chairperson of the original Academic Discipline Hearing Panel or by the Board;
 - f. the hearing shall be *in camera* unless the student requests that it be open, in which case the number

of observers may be limited by the Chairperson. The student is entitled to at most five (5) observers.

Disposition of the Appeal

The Senate Academic Discipline Appeal Board may, by a majority:

- a. deny the appeal;
- b. quash the decision of the Senate Academic Discipline Committee entirely;
- c. quash the decision of the Senate Academic Discipline Committee and recommend a re-hearing on the merits by another panel of the Senate Academic Discipline Committee; or
- d. modify the penalty assessed by the Senate Academic Discipline Committee.

Copy of the Decision

Within five (5) working days from the date the Academic Discipline Appeal Board has rendered its decision, the Registrar shall deliver a copy of the decision to the student who initiated the appeal and to the persons mentioned in item 2 above;

Compliance within Thirty (30) Calendar Days

Where the Academic Discipline Appeal Board has determined that a person or Faculty is to address or act upon a particular matter, the person or Faculty shall within thirty (30) calendar days of the receipt of the decision, advise the Registrar of its compliance, or time table for compliance, with the decision.

No Further Appeal

The findings and ruling of the Academic Discipline Appeal Board shall be binding without further appeal.

Student Code of Conduct

1. Among the objectives of Saint Mary's University are:
 - to promote and disseminate learning and knowledge.
 - to provide an atmosphere of freedom, responsibility and mutual respect in the University community, and,
 - to aid in the improvement of society in all ways consistent with these objects.
2. It is important to recognize that in the fulfillment of these objectives, non-academics standards of behavior on the University Campus are as important as academic standards. The Student Discipline Code is directed towards non-academic standards of behavior and seeks to define the rights and responsibilities of students as members of the University Community.
3. Discipline should encourage students to understand the fundamental values that are essential to the well-being of both the individuals and society, and to accept responsibility for the consequences of their actions.

4. Students will be responsible for their conduct and will accept the consequences for choices made.
 5. The Student Discipline Code is adopted by the Board of Governors pursuant to Section 8(1)(g) of the Saint Mary's University Act.
 6. **Premises of the Student Discipline Code**
 - a. The Student Discipline Code is committed to fairness in disciplinary and appeal procedures.
 - b. The Student Discipline Code is committed to clarity of form and content, in order to facilitate a fair and timely resolution of problems.
 - c. Notwithstanding the rules and procedures set out in the Student Discipline Code, the President retains his/her authority to exercise general supervision over the students in accordance with the University Act.
 - d. The purpose of this discipline code is instruction. It is a process through which individuals learn to behave in a manner consistent with expectations designed to allow the greatest number of people the opportunity to learn in an appropriate and safe environment.
 7. Misconduct for which students of the University will be subject to discipline includes but is not limited to:
 - a. conduct which threatens or endangers the health, safety, or well-being of anyone in their capacity as a member of the University community on or off campus,
 - b. the use of abusive or offensive language or gestures at University sponsored functions,
 - c. theft of, or deliberate or reckless damage to, University property or the property of a member of the University community,
 - d. violations of published rules including those governing University residences,
 - e. dishonesty, including, but not limited to:
 - f. knowingly furnishing false information or failing to verify the accuracy of the information provided, and
 - g. fraud, forgery, alterations or misrepresentation of documents, University records or instruments of identification;
 - h. use or consumption of intoxicants, including alcoholic beverages, except where specifically authorized under lawful conditions,
 - i. unauthorized use of the University's corporate name, crest, or logo,
 - j. intentional obstruction or disruption of any University sponsored function, including disciplinary proceedings held in accordance with these regulations,
 - k. the entry or attempted entry without lawful authority of any building, facility or dwelling on University property,
 - l. failing to comply with the direction of University officials acting in the performance of their authorized duties,
 - m. violation of any law of Canada, including but not limited to, acts declared unlawful relating to drugs, alcoholic beverages or gambling or the possession of weapons,
 - n. the unauthorized alterations or misuse of any firefighting equipment, safety equipment or emergency device,
 - o. soliciting or canvassing for commercial purposes without prior written authorization from the University, and
 - p. deliberate assault upon a security officer (including without limitation, members of the campus police force, residence assistants, residence security staff or security officers).
- Disciplinary Officers and Jurisdiction**
8. Under the general responsibility and direction of the Director of Student Services, and subject to Senate regulations, the following Administrative Officers at the University (hereinafter called "Disciplinary Officer") shall have jurisdiction in matters of student conduct and discipline in respect of all registered students at the University, both full and part-time, and all student organizations at the University:
 - a. in matters of damage to property or misconduct against the person, occurring within the confines to the residences maintained by the University (the "Residences"), the Director of Residences,
 - b. in matters involving property damage to University property outside the confines of the Residences, the Director of Student Services,
 - c. in matters involving misconduct against the person committed on University property, but outside the Residences, and relating to misconduct against the person and/or property outside the University, the Director of Student Services, and
 - d. notwithstanding (a), (b), and (c), in respect of all cases of sexual harassment, regardless of location, the Conflict Resolution Officer.
 9. In the event that the Disciplinary Officer having jurisdiction is unable to act upon any complaint filed with him/her, or must disqualify himself/herself from acting upon any complaint for any reason, that officer shall refer the matter to either of the other Disciplinary Officers who shall, upon referral of any complaint, have jurisdiction to act upon the complaint. Should those other officers also disqualify themselves, the matter may be referred to the Assistant Director of Residences (Residence Life).
 10. The Disciplinary Officers, when exercising their jurisdiction as set out herein, shall uphold the authority of the Board of Governors, the Senate and the Saint Mary's University Students' Association (the Students' Association).
- Sexual Harassment**
11. Because of the special considerations involved in cases of sexual harassment, the Senate has approved a procedure for dealing with sexual harassment. This Policy contains a complete code with respect to matters of complaints of sexual harassment and shall be used to govern all cases of sexual harassment even where it conflicts with this Policy, except in so far as disciplinary penalties are concerned. The range of disciplinary penalties which can be invoked in cases of

sexual harassment are those enumerated in Article 23 of that Policy.

<http://www.smu.ca/webfiles/SexualAssaultPolicyandProcedures.pdf>

Disciplinary Complaints

12. Any member of the University community (i.e., students, faculty, administrators or employees) may lodge a complaint with any of the Disciplinary Officers alleging that a student has engaged in a misconduct. Any such complaint shall set out the facts of the alleged misconduct and shall be made within five days of the complainant having become aware of the misconduct. A Disciplinary Officer shall have the power to extend the time for filing a complaint if he/she deems it appropriate having regard to all the circumstances surrounding the alleged misconduct.

Disciplinary Hearing

13. Complaints will be heard by a Board (the Student Disciplinary Board or "SDB") consisting of three persons as follows:
- a. the Disciplinary Officer having jurisdiction over the complaint (8. (a), (b), c)),
 - b. one member of the administration staff of the University to be appointed by the President, and
 - c. one student chosen by the Director of Student Services through an interview process, in conclusion with the Saint Mary's Students' Association.
- With respect to the administrative and student members, an alternate for each shall be designated as outlined in 13. b) and c).
14. Disciplinary hearings will be chaired by the Disciplinary Officer having jurisdiction.
15. Upon receiving any complaint, the Disciplinary Officer acting in respect of the alleged misconducts shall set a time and place for the hearing of the complaint. Wherever possible, the hearing of the complaint shall be within ten (10) days from the date of the receipt of the complaint by the Disciplinary Officer acting in respect of the alleged offence.
16. The Disciplinary Officer acting in respect of the alleged misconduct shall serve the student respondent with notice of the time and place of the hearing and the nature of the alleged misconduct not later than 48 hours prior to the time set for the hearing. This notice can be waived by a mutual agreement.
17. A student respondent shall have the liberty to admit to the misconduct with explanation and avoid a full disciplinary hearing. Once the Disciplinary Officer has heard the admission with or without "explanation" he/she shall advise the student of his/her decision regarding a disciplinary penalty. The student may accept this decision or may request a full hearing of the Student Disciplinary Board. In the latter case, the Disciplinary Officer will disqualify him/herself from hearing the case and refer the complaint to the second Disciplinary Officer. A student respondent who accepts

the decision made by the Disciplinary Officer shall not have the right to an appeal subject to the complainant's right of appeal.

In the event that a student respondent fails or refuses to comply with the disciplinary penalty and/or fine imposed hereunder, the Disciplinary Officer shall recommend to the Appeal Board the suspension and/or expulsion of the person from the University and shall provide notice of his/her recommendation to the person.

18. At the commencement of any hearing, the Chair of the Student Disciplinary Board shall ask the accused person to admit or deny the allegations of misconduct. In the event that the student respondent neither admits or denies the allegations, the Disciplinary Officer shall consider that the student respondent denies the allegations and require the complainant to provide evidence in support of the complaint.
19. The Student Disciplinary Board shall have the power to determine the procedure to be followed at any disciplinary hearing, but in every case shall provide both the complainant and the student respondent the opportunity to testify personally, to call witnesses and to make representations provided, however, that the complainant's case against a student respondent shall be completed prior to the student respondent's testifying or calling witnesses.
20. Both the complainant and the student respondent will normally present their cases without necessity of legal or other representation. In appropriate circumstances, the Student Disciplinary Board may allow parties to be assisted by an advisor, legal or otherwise, but in any case, where a person wishes to have representation, he/she shall so advise the Chair of the Student Disciplinary Board not less than 48 hours prior to the hearing.
21. In the event that a student respondent, having been given notice thereof, shall fail or refuse to attend the disciplinary hearing at the place and time set therefore, the Student Disciplinary Board shall conduct the hearing in the absence of the student respondent.

Decision

22. The Student Disciplinary Board shall, within five (5) days of the conclusion of a hearing, render the Student Disciplinary Board's decision in writing, setting out the reasons therein for the Student Disciplinary Board's decision. The decision of the Student Disciplinary Board shall be the decision of a majority of the Board. The student respondent and the complainant shall be sent a copy of the decision within two (2) days of the rendering of the decision, and a copy of the decision shall be forwarded to the President of the Students' Association, the President of the University and the other Disciplinary Officers.

Disciplinary Penalties

23. The Student Disciplinary Board shall, on completion of the hearing, have the power to dismiss the complaint if the Board concludes that the student respondent did not engage in the alleged misconduct, or to impose any of the following penalties, if the Board concludes that the student respondent did engage in the misconduct:
- a. to the matter. Ten (10) dollars will be the amount normally levied in respect of administrative costs, but the University reserves the right to levy such amount as is appropriate in the circumstances of each case,
 - b. to levy such fine or penalty as the Student Disciplinary Board deems appropriate, but no monetary penalty in excess of the actual monetary amount of damage caused by the student respondent plus a fine of \$100.00 shall be levied in a case where the student respondent admits to the misconduct.
 - c. to recommend to the Appeal Board the suspension and/or expulsion of the student respondent from the University, and/or
 - d. to impose any other penalty that is deemed appropriate having regard to all the circumstances surrounding the complaint.
24. In the event that a student respondent fails or refuses to comply with the disciplinary penalty and/or fine imposed hereunder, the Disciplinary Officer shall recommend to the Appeal Board the suspensions and/or expulsion of the person from the University and shall provide notice of his/her recommendation to the person.
25. There shall be an Appeal Board consisting of three persons to be appointed as follows:
- a. one faculty member to be appointed by the Senate,
 - b. one member of the Administration Staff of the University to be appointed by the President of the University, and
 - c. one student to be appointed by the Student's Council.
- An alternate for each of these persons shall be designed as in 25. (a),(b) and (c).
26. The following people are not eligible to serve on the Appeal Board:
- a. Student Security,
 - b. Residence Assistants,
 - c. Residence Security, and,
 - d. Disciplinary Officers.
27. The Faculty member shall act as chairperson of the Appeal Board.

Appeals Procedure

28. If either complainant or the student respondent feels aggrieved by the decision or penalty imposed by the student Disciplinary Board, they may file a written notice for consideration of an appeal with the Appeal Board within five (5) days of receiving notice of the decision of the Student Disciplinary Board. A person filing a Notice of Appeal shall, at the time of filing the Notice, pay to the University a deposit of \$25.00. If the

appellant is successful in the appeal, the deposit shall normally be refunded to him/her.

29. The grounds for an appeal shall be limited to:
- a. disclosure of new and relevant evidence not available at the original hearing, and/or
 - b. severity of the penalty.
- The Chairperson, in consultation with the board members, shall consider the relevance of the student's appeal on these grounds prior to setting an appeal hearing. If the Appeal Board finds that grounds do not exist, then the appeal is to be denied and the chairperson shall notify the appellant within 48 hours.
30. Once it has been determined that an appeal is warranted, the Chairperson of the Appeal Board shall set a time and place for the hearing of the appeal. An appeal shall normally be heard within five (5) University business days from the date of the filing of Notice of Appeal. The chairperson shall inform the complainant, the student respondent and the Disciplinary Officer of the time and place for the hearing. He/she shall also make known the grounds for an appeal as outlined in 25. (a) and (b).
31. The Appeal Board shall have the right to determine its own procedure, but in every case shall give both the complainant and the student respondent the right to make representations. Both the complainant and the student respondent will normally present their cases without legal or other representation. In appropriate circumstances, the Appeal Board may allow parties to be assisted by a representative (legal or otherwise), but in any case, where a person wishes to have representation, he/she shall so advise the Chairperson of the Appeal Board not less than 48 hours prior to the hearing.
32. Upon hearing any Appeal, the Appeal Board may confirm the decision of the Student Disciplinary Board or vary the decision in any manner which it deems appropriate. In any case where the Appeal Board has decided to suspend/expel a person from the University, it shall forward the decision to the President of the University for approval.
33. The decision of the Disciplinary Appeal Board shall be the decision of a majority of the Board, and shall be made known to all interested parties in accordance with the manner set out in paragraph 22 herein.

Fines, Etc.

34. All fines or other money received pursuant to this Student Disciplinary System shall be paid to the general account of the University. The Chairperson of the Appeal Board shall ensure that, where appropriate, any funds so received are credited to the University Department concerned.

Offenses Against Security Officers

35. Where the Student Disciplinary Board has found that a student respondent has committed an assault upon a Security Officer (including, without limitation, members of the Student Security Force, Residence

Assistants, Residence Security Officers) the Student Disciplinary Board shall recommend to the Appeal Board the suspension and/or expulsion of the person from the University and shall provide notice of its' recommendation to the person.

General

- 36. In this Disciplinary System, unless otherwise specified, "days" shall mean University Business days.
- 37. The Student Disciplinary Board acting in respect of a complaint, or the Appeal Board in the case of an appeal, shall have the power to extend or waive any of the time limits contained herein if it considers that it is necessary in the circumstances and that it would not prejudice any of the parties involved.

University Housing Disciplinary Procedures

- 38. All students who reside in University housing must abide by the Saint Mary's University Student Discipline Code and by the policies and regulations set out in the Residence Handbook, Residence Agreement, and the University Calendar.
- 39. Residence Assistants (RA), Residence Coordinators (RC), and Residence Security Officers (RSO) shall be empowered by the Director of University Residences to issue bonding notices for misconduct which would not normally be heard through the Student Discipline Code including:
 - a. non-evacuation during a fire alarm/emergency,
 - b. excessive noise and/or violation of Quiet Hour Policy,
 - c. mischief/disruptive behaviour,
 - d. violation of Liquor Policy,
 - e. playing hallway games,

- f. violation of Smoking Policy,
- g. violation of Guest and/or Visitor Policy.

- 40. The bonding Notice may be in the form of a warning only or a bond in the amount of \$50.00. The bond becomes payable within two business days of the date of a second bond being issued. One copy of the Bonding Notice goes to the student, a second to the RA, RC or RSO and a third to the Director. Within twenty-four hours of issuing a Bonding Notice, the RA/RC/RSO must complete an incident report copying the student, the RA/RC/RSO and the Director.
- 41. Appeals of a Bonding Notice will be heard by a Residence Discipline Committee, which shall be scheduled as follows:
 - h. the committee will be called together by the Residence Coordinator of the residence in which the bonded student lives,
 - i. the committee shall consist of five residence student members who shall represent a cross-section of all residences. Committee members shall be selected by the Director, University Residences through an interview process (See Article 26 for eligibility requirements).
 - j. three members shall constitute quorum of the committee,
 - k. the Chairperson of the committee shall be chosen by a majority vote of the committee members, and
 - l. the decision of the committee shall be final and shall be communicated to the bonded student, with copies to the Residence Coordinator and Director, within five (5) days of the hearing.

Academic Regulations

Philosophy behind Academic Regulations

Academic regulations exist to assist the students in academic matters; to delineate the terms of students' contract with the University; and to maintain the integrity of the University's academic programs. While regulations enable the system to operate smoothly and effectively, they also facilitate growth, development, and responsibility in students. Saint Mary's makes every effort to ensure that advice on academic matters is available to its students, but in the final analysis it is the students' responsibility to seek such advice.

The information, regulations, and guidelines contained in this section apply to all students at the University. Additional regulations pertaining to degree programs are in the Section 3 of the *Calendar*, while regulations pertaining to majors, honours, concentrations, and minors are found in Section 4.

Note: The University continuously reviews all of its academic regulations and hereby serves notice that significant revision(s) thereto may occur from time to time and will be duly promulgated officially.

Glossary

This glossary explains some terms which are used frequently throughout this *Calendar*. It is intended as a quick-reference guide and may not necessarily offer the complete, official definitions and explanations which apply to the University's programs and the administration of its regulations.

Academic Audit	Also called Degree Evaluation or CAPP - a computerized checking of courses completed against the requirements for a student's academic program – available through Banner Self Service.	Advanced Standing	Credit hours granted for work completed at a post-secondary institution before admission to Saint Mary's University. See Academic Regulation 20.
Academic Standing	A student is in Good Standing if their CGPA is 1.70 or above. Students who have attempted at least 24 credit hours with a CGPA below 1.70 will be placed on Academic Probation and those with a CGPA below 1.00 may be on Academic Dismissal for 12 months or longer. See Academic Regulation 7.	Area of Concentration	The main subject area of study (used in the 3 year B.A. and B.Sc. programs).
Academic Year	The period immediately following Labour Day in September up to and including Convocation Day in May of the following year. It is comprised of two academic terms or semesters.	Attendance Status	A student officially registered for at least nine (9) credit hours in a term is considered to be "full-time", whereas a part-time student is registered for less than nine (9) credit hours in a term. The exception is Engineering. See Academic Regulation 1.
Add and Drop Period	A timeframe during which students can add or drop courses for the current academic term without those dropped showing on their permanent academic record; sometimes referred to as a "change of registration period". www.smu.ca/servicecentre/dates.html See Academic Regulation 13.	Audit	Formal registration for a course(s) for which academic credit hours are not sought or granted. See Academic Regulation 2.
Admission	Acceptance of an applicant as a student.	Bachelor Degree	Refers to a three or four-year undergraduate degree awarded by the University. Also referred to as a Baccalaureate degree.
		Bursary	A monetary grant based on financial need. See Section 6 of the <i>Academic Calendar</i> .
		Chairperson	Faculty member responsible for an academic department and affiliated area(s) of study.
		Certificate	Specific courses grouped into a predetermined program, usually designed to be completed in the equivalent of one year of full-time study, intended to provide a general introduction to a field of study or specialized knowledge area. Non-credit certificates may be shorter. See "Area of Concentration" above.
		Concentration	
		Cooperative Education (Co-op)	A method of learning in which students alternate study terms on campus and work terms during which they are employed full-time by companies or institutions related to their academic field.
		Co-requisite	A course which must be taken concurrently with another course (e.g., CHEM 1211 requires MATH 1210 to be taken before or concurrently).
		Course	A unit of study in a particular subject identified by a course title and a unique course number.
		Course-Based Service Learning	(CBSL) is experiential learning linking community-based experience with course content. Activities to benefit the service provider (the student) and recipient (the Community Partner). Students participate in unpaid service experiences

	<p>incorporating reflection about their experiences to academic work.</p> <p>Note: May require a Criminal Record Check (CRC), Vulnerable Sector Check (VSC), Child Abuse Registry Check (CAR), and/or other additional requirements. Costs associated with such requirements are the responsibility of the student and evidence of meeting such requirements is required before beginning the placement.</p>		<p>set. These latter courses are called “electives”.</p>
Credit Hours	<p>A unit of academic value. Six (6) credit hours are granted for each successfully completed full-year course three (3) credit hours are granted for a successfully completed one-term course</p> <p>Credit hour values are used in the calculation of averages for academic standing and in the determination of the student’s year of study or level within a specific academic program.</p>	Faculty	<p>When spelled with a capital F, refers to an academic unit offering its own degree, diploma, and certificate program(s); when spelled with a small f, refers to instructors in a Faculty.</p>
Cross-Listed Courses	<p>Courses which are listed under two different numbers in two different departments or academic units. Cross-listed courses may be taken through either department/ academic unit, but credit hours may be earned for only one of the courses.</p>	Full-time	<p>See “Attendance Status” above.</p>
Cumulative Grade Point Average	<p>Each letter grade awarded has an associated numeric grade point value. A cumulative grade point average (CGPA) is an average calculated based upon all courses taken subsequent to admission to the University. The CGPA is used to determine academic standing and distinctions. See Academic regulations 5 and 6.</p>	Grade	<p>The letter indicating an instructor’s evaluation of a student’s work in a course. See Academic Regulation 5 (undergraduate) and Graduate Regulation 6 (graduate).</p>
Dean	<p>Also called Dean of the Faculty; the chief academic administrator of a Faculty.</p>	Grade Point Average	<p>Each letter grade awarded has an associated numeric grade point value. A grade point average (GPA) is an average of these grade points. Commonly used GPA’s are Cumulative GPA, Degree GPA and Term GPA.</p>
Degree Grade Point Average	<p>A degree grade point average (DGPA) is calculated based upon the courses presented in fulfillment of the degree requirements.</p>	Honours	<p>Honours is the most intense level of study in a discipline within an undergraduate degree program.</p>
Diploma	<p>Specific courses grouped into a predetermined program, usually designed to be completed in the equivalent of two years of full-time study, intended to provide knowledge in a field of study that goes beyond general knowledge of a Certificate.</p>	Instructor	<p>A member of faculty.</p>
Directed Reading/Study	<p>An approved course in which an individual student studies, discusses and writes about a selected set of readings under the direction of an individual faculty member.</p>	Letter of Permission	<p>An official document issued by Saint Mary’s to enable its own students to register for a course(s) at another post-secondary institution and to guarantee transfer of the credit hours for that course(s), if successfully completed, to the student’s academic program. See Academic Regulation 21.</p>
Elective	<p>Within an academic program, some courses are explicitly required and some courses may be selected from a specified</p>	Major	<p>A formal, specific subject area of study within an academic unit as defined by its degree program. It has more depth than a Concentration, but not as much as Honours.</p>
		Open Studies Status	<p>An admission status permitting a student to take a course although that individual has not been accepted in an academic program at Saint Mary’s University. See Admission Regulation 4a.</p>
		Part-time	<p>See “Attendance Status” above.</p>
		Plagiarism	<p>An academic offence. Plagiarism means presenting words, ideas or techniques of another as one’s own. Please see Academic Integrity and Student Responsibility in Section 2 of the Academic Calendar and A Student’s Guide to avoiding plagiarism and cheating(http://www.smu.ca/academics/avoiding-plagiarism.html).</p>
		Preparatory Course	<p>Nova Scotia Grade 12 equivalent course designed to prepare students for entry level course work and hence not counted toward any degree, diploma, or certificate. A preparatory course’s number begins with zero (0).</p>

Prerequisite	A course for which credit hours must have been earned prior to registration in another course, lab, or recitation which lists it as a prerequisite.	Visiting Student	A student from another post-secondary academic institution who has a Letter of Permission to register for a course(s) at Saint Mary's University.
Probation	A conditional status assigned to a student who has shown evidence of academic weakness. See Academic Regulation 7.	Withdrawal	A formal procedure set out within the regulations of the University for withdrawing from an individual course(s), or from the University entirely. See Academic Regulation 16.
Program	An approved combination of courses in a subject area(s) which fulfills the requirements for a degree, diploma, or certificate.	Year of Study	Attaining a degree, diploma, or certificate depends in part on earning credit hours for individual courses required in that academic program. However, progress may be measured in years or levels. Advancement from one year (or level) to the next signifies students having earned credit hours in the number of courses normally specified on an annual basis for their academic program. The following are the credit hour totals required for each year of study. Year 1: 0 to 30 credit hours Year 2: 33 to 60 credit hours Year 3: 63 to 90 credit hours Year 4: 93 or more credit hours
Program Grade Point Average	A program (major, honours, minor, concentration) grade point average (PGPA) is calculated based upon the courses presented in fulfillment of the program requirements.		
Registration	The process of officially selecting courses, labs, and recitations.		
Satisfactory Academic Standing	See Academic Standing above.		
Scholarship	A monetary award based on academic achievement.		
Semester	Same as "term" below.		
Special Topics	Approved courses dealing with specialized subject-matter that is announced from time to time by Departments; they involve classes at regularly scheduled times and are included in the normal timetable.		
Subject	Also called a discipline; a specific field of study, e.g., Accounting, Chemistry, History.		
Summer Sessions	Terms of study during the summer. See "term" below.		
Transcript	An academic document issued by the Office of the Registrar which records all aspects of a student's registrations and grades obtained at the University. An "official" transcript is one which bears the official seal of the University. See Academic Regulation 32.		
Transfer Credit	Credit granted for work completed at another post-secondary academic institution after admission and initial registration at Saint Mary's University. Students must obtain an approved Letter of Permission before enrolling in courses for which transfer credit will be sought. See Academic Regulation 21.		
Upgrading Student	A student who already holds an undergraduate degree or professional certificate and who wishes to take an additional credit course(s) at Saint Mary's University. See Admission Regulation 4c.		
		Discipline Abbreviations	
		ACCT	Accounting
		ACST	Atlantic Canada Studies
		ANTH	Anthropology
		ARBC	Arabic
		ASNT	Asian Studies
		ASTR	Astronomy
		BIOL	Biology
		BUSI	Business Administration
		CHEM	Chemistry
		CHNS	Chinese
		CISY	Computing and Information Systems
		CLAS	Classics
		CMLW	Commercial Law
		COMM	Communication
		CRIM	Criminology
		CSCI	Computing Science
		ECON	Economics
		EDUC	Education
		EGNE	Engineering
		EGSL	English as a Second Language
		EGYP	Egyptian
		EMBA	Executive Master of Business Administration
		ENGL	English
		ENVS	Environmental Science
		FILM	Film Studies
		FINA	Finance
		FREN	French
		FRSC	Forensic Sciences
		GEOG	Geography
		GEOL	Geology
		GREK	Greek
		GRMN	German
		GSCI	General Science
		GWST	Women and Gender Studies (graduate)
		HEBW	Hebrew

HIST	History
HWSS	Health, Wellness and Sport in Society
IDST	International Development Studies
ICST	Intercultural Studies Indigenous Studies
IRST	Irish Studies
JPNS	Japanese
LATN	Latin
LING	Linguistics
MAE	Master of Applied Economics
MATH	Mathematics
MCDA	Master of Science in Computing and Data Analytics
MFIN	Master of Finance
MGMT	Management
MGSC	Management Science
MKTG	Marketing
MMCCU	Master of Management - Cooperatives & Credit Unions
MTEI	Master of Technology Entrepreneurship and Innovation
PCST	Peace and Conflict Studies
PHIL	Philosophy
PHYS	Physics
POLI	Political Science
PSYC	Psychology
RELS	Religious Studies
SMBA	Master of Business Administration
SJCS	Social Justice and Community Studies
SOCI	Sociology
SPAN	Spanish
WMST	Women Studies (undergraduate)
WGST	Women and Gender Studies (graduate)

Students, members of faculty, and administrative officers concerned with academic matters are all expected to be familiar with the rules, regulations, and procedures of the University as published in this *Academic Calendar*. The University reserves the right to approve academic programs and timetables, and to control access to courses and individual classes. It is the particular responsibility of students to ensure that the courses which they take are appropriate for their academic program, involve no timetable conflicts, and collectively satisfy all the requirements of that program.

Note: Academic administrators may appoint designates to carry out functions and responsibilities delineated in these academic regulations.

1. Number of Courses in an Academic Session

- (i) Students must formally register for all courses. In the Faculties of Arts, Commerce and Science (excluding Engineering), the normal load in an academic session for a full-time undergraduate is fifteen (15) credit hours per semester; while in the Division of Engineering, eighteen (18) credit hours per semester constitute a normal full-time load.

Undergraduate students registered for at least nine (9) credit hours in a semester are considered to be full-time, while students registered for fewer than nine (9) credit hours per semester are part-time. During the

- same academic year, it is possible for students to be full-time in one semester and part-time in the other.
- (ii) Students who have earned at least thirty (30) credit hours at Saint Mary's may elect to take up to an additional six (6) credit hours in the regular academic year. Permission is not required for such an overload.
- (iii) Students may take up to nine (9) credit hours during any one summer term, i.e., May to June or July to August at Saint Mary's, on Letter(s) of Permission, or a combination of these.

2. Auditing Courses

Students may audit courses but they must formally register as auditors in these courses. Auditors participate in all regular class activities, but are not expected to prepare formal assignments, write papers, or take quizzes, tests, or examinations. With the permission of the instructor, however, they may perform these activities and receive an informal evaluation of their work. Audited courses are not given credit hours or regular grades but the notation of AU is included on the students' official record. Within the normal time limits for changing courses (see 13b), students may request permission to change from regular registration status in a course to auditing status or vice versa.

3. Academic Advising

a. Although students are responsible for ensuring that they meet the requirements of their academic programs, the University makes every effort to provide assistance in the selection of courses and programs. Students who have already declared their major, area of concentration, honours, or minor will be advised by the Chairperson of the appropriate departments or their appointees. All other students should seek advice from the Dean, Associate Dean or Undergraduate Program Advisor for their Faculty. Students are strongly urged to familiarize themselves with the academic audit program in Banner.

b. Academic counseling is particularly recommended for the following students:

- (i) all students who are on academic probation as defined in Regulation 7d;
- (ii) all students who do not attain a grade point average of at least 1.70 in any given semester;

4. Grading System

a. The final grade for a course will be based on the quality of a student's work including, where appropriate, essays and exercises, class tests, end of semester examinations, final examinations, reports, class participation, laboratory work, tutorial sessions, projects and field work.

b. On the first day of class for a course, instructors must provide students with a written copy of the course outline. The outline must conform to the Senate Policy on Course Outlines. In accordance with the Policy, the outline must include the grading system to be used in the course. The grading system includes the relative weight which will be given to class and/or laboratory participation, examinations, tests, written assignments and other means of

evaluation. The statement must also show how these evaluations will be used to determine final letter grades. Subsequent changes to this system must also be made available to students in writing. A copy of the course outline and any subsequent changes to it must be placed on file in the office of the Department Chairperson and Dean of the Faculty at the time when they are distributed to the students.

c. Instructors must also inform students in writing on the first day of class of any “in-class” test which will be scheduled outside of the regular instructional hours of the course. Students who cannot write the test outside of class time must be offered reasonable accommodation. Students must give the instructor a minimum of a two-week notice.

d. Instructors must also provide feedback to students regarding their progress in the course prior to the final date by which a student may cancel the course without academic penalty (see Academic Regulation 16 a). Normally, for undergraduate courses, this feedback must equal a minimum of 15% of the final grade.

5. Undergraduate Rating, Grades and Grade Points *

a. The rating of undergraduate students’ performance is given as shown below in equivalent grades, grade points, and percentages.

Grades	Grade Points	Percentage Points	Rating
A+	4.30*	90-100	Excellent
A	4.00	85-89	
A-	3.70	80-84	
B+	3.30	77-79	
B	3.00	73-76	
B-	2.70	70-72	Good
C+	2.30	67-69	
C	2.00	63-66	
C-	1.70	60-62	Satisfactory
D	1.00	50-59	
F	.00	0-49	
IP			Marginal Failure or withdrawal after deadline (see 16 below) In Progress (Applicable ONLY for undergraduate honours courses.)

*In November 1997, the Senate of Saint Mary’s University voted to have the A+ grade carry 4.30 grade points, retroactive to I Summer Session, 1988. All past decisions on academic matters, such as academic probation/requirement to withdraw, placement on the Dean’s List, qualifications for graduation, academic distinctions, and scholarships, shall not be affected.

b. The following grades shall be given when appropriate but will not be calculated in the grade point average:

Aegrotat standing (see No. 12)
AE
Authorized withdrawal from course W
(see 16a below)

c. The minimum passing grade is D (or its equivalent). Students should be aware, however, that a grade of D (or the equivalent) is regarded as a marginal pass and therefore carries negative connotations. For example, many programs require a grade higher than “D” in an introductory course in order to declare a major.

d. In cases where students have not be able to complete the work of the course due to exceptional circumstances the instructor may, with the prior written authorization of the Dean of the Faculty, give the grade IC (incomplete). The IC grade will not be included in the calculation of any grade point average. The IC will be automatically converted to a failing grade, F, if the instructor does not submit a final grade as follows: for first term by Jan 31, for the second term by May 31, for summer session one by July 31 and for summer session two by Sept 30.

e. A temporary grade of IP (in progress) may be assigned by the instructor with the Dean’s official concurrence in those instances where students do not complete on time the work in honours courses and theses. The IP grade will not attract any grade points and therefore will not be calculated into any grade point averages. If an IP grade has not been changed into a real grade six months from the last day of classes in the semester in which the course was taught it will automatically be converted to a failing grade of “F”. The change from IP being a permanent grade with no impact on calculations of grade point averages to a temporary grade became effective on 1 September 2001 and is not retroactive.

f. The maximum time limit permitted for a change of final grade is six months from the last day of classes in the semester. Except for the changing of an already approved “incomplete” to a real grade, a grade change must be approved by the Dean of the Faculty in which the course is offered.

g. In cases where through no fault of the student, grades have not been received and processed by the deadline stipulated by Senate, a temporary grade of AI (“administrative incomplete”) will be assigned but will not be included in the calculations of grade point and cumulative grade point averages. This temporary grade of AI is assigned by the Registrar.

h. Once a final grade has been submitted to the Registrar, supplementary examinations or any additional assignments for the purpose of changing that grade are not permitted.

*The course outline may stipulate how the final grade is determined. While the total of all elements of a course may exceed 50%, a pass in certain components may be mandatory in order to pass the course.

6. Grade Point Average

a. Each letter grade is given a grade point equivalent as described in 5a above. A grade point average (GPA) is calculated by multiplying each grade by the number of credit hours, totaling the grade points and dividing by the total number of credit hours attempted. Grade point averages may be calculated for a semester, year, degree, program or cumulatively. Common grade point averages are described below.

b. The cumulative grade point average (CGPA) is based upon all courses taken for credit hours in any Faculty at Saint Mary's other than those for which grades of AE have been given. Courses for which grades of F have been given are included in the calculation of the grade point average. In the case of a repeated course, only the most recent grade is included. All past decisions on academic matters, such as academic probation/requirement to withdraw, placement on the Dean's List, qualifications for graduation, academic distinctions, and scholarships, shall not be affected by CGPA changes due to repeated courses.

In the case of a Saint Mary's graduate completing a second undergraduate degree, the final transcript shall include an additional GPA with a notation stating the GPA is based solely on all undergraduate courses taken since the completion of the first degree.

c. A degree grade point average (DGPA) is calculated based upon the courses presented in fulfillment of the degree requirements. Since courses without passing grades (W, F, IC, IP) are not used to fulfill degree requirements, they are not included in the DGPA. In the case of a repeated course, the most recent grade is included. Grades for courses in excess of degree requirements are not included.

d. A program (major, honours, minor, concentration) grade point average (PGPA) is calculated based upon the courses presented in fulfillment of the program requirements. Since courses without passing grades (W, F, IC, IP) are not used to fulfill program requirements, they are not included in the program GPA. In the case of a repeated course, the most recent grade is included. Grades for courses in excess of program requirements are not included.

e. Grades for courses taken at other institutions for which advanced standing is given *are not included* in calculations for a grade point average, a cumulative grade point average, or in calculations for determining awards and distinctions. Grades for courses taken on a Letter of Permission at other institutions covered by the Pan Canadian Agreement are included in these calculations.

7. Standing Required

a. There are multiple regulations governing a student's program of study. These include the overall regulations for the credential (degree, certificate or diploma) as well as those for the area(s) of specialization (concentration, major, honours, minor). For each set of regulations, the ones that apply are those in effect at the time the student first registers in the credential or declares the specialization. For example, a student admitted to a B.A. in 2004 who then declares an English major in 2006 is governed by the B.A. requirements

in effect in 2004 and the English major requirements in effect in 2006. If it is advantageous for a student to follow the new regulations in meeting the requirements for the credential or specialization, the new regulations will apply.

b. In the case of students readmitted after an absence of five or more years, or after having been dismissed for academic weakness, or in the case of students transferring to a different academic program, the regulations in force at the time of readmission or transfer apply. In addition, the Dean may attach specific and binding conditions to the students' performance to ensure that the normal standards of the degree requirements are met.

c. Good Standing

- (i) Student are deemed to be in "Good Standing" if they have achieved a minimum cumulative grade point average (CGPA) of at least 1.70.
- (ii) To qualify for a Bachelor's degree in Arts, Science, or Commerce a student must achieve a minimum degree grade point average (DGPA) of 2.00. Note: A higher DGPA may be required for some programs (e.g., honours).
- (iii) To qualify for a Diploma in Engineering or a Certificate students are required to achieve a program grade point average (PGPA) of at least 2.00. Note: Individual programs may require a higher PGPA.

d. Academic Probationary Status

Academic Probationary status is incurred:

- (i) if, at the end of any academic year (i.e., on or about 1 May), a student has attempted a minimum of 24 credit hours with a CGPA of at least 1.00 but less than 1.70;
- (ii) if on readmission after being suspended or dismissed because of academic weakness [see (i) below];
- (iii) if students are required to confer with their academic advisor and fail to do so or fail to make appropriate efforts to resolve problems which are affecting their academic performance.

e. Eligibility to Continue

Students in Good Standing are eligible to continue. Students on academic probation are eligible to continue if at the end of any academic year (i.e., on or about 1 May) their annual GPA is at least 1.70

Notes:

- (a) Transfer to a different Faculty does not remove probationary status.
- (b) Unless the permission of the Dean of the Faculty has been obtained in advance, courses taken at another educational institution cannot be used to remove probationary status. This is normally not granted.
- (c) All academic probationary notations are retained permanently on students' academic records.

f. Required Academic Counseling

Students on academic probation are required to confer with the Faculty's academic advising office at least once each term while on probation. The advisor may stipulate

additional meetings with the student. Failure to confer with an advisor when requested may result in placing holds on any future course registration.

g. Suspension

At the end of each academic year (i.e., on or about 1 May), students will be suspended for 12 months if:

- (i) they have attempted at least 24 credit hours with a CGPA below 1.00;
- (ii) they are on probation and do not satisfy the requirements for continuance;
- (iii) they are on probation and fail to comply with any formal conditions governing their probation.

While on suspension, student may not enroll in any credit courses at the University. After completing their suspension, student may resume their studies on probation (see d. above).

h. Dismissal

At the end of each academic year (i.e., on or about 1 May), students will be dismissed for 12 months if they have previously been suspended and:

- (i) they have a CGPA below 1.00;
- (ii) they are on probation and do not satisfy the requirements for continuance;
- (iii) they are on probation and fail to comply with any formal conditions governing their probation.

Students who are dismissed from the University for both academic and non-academic reasons may be denied the right to return to Saint Mary's.

i. Admission after Dismissal

- (i) Students who are not eligible for readmission to their former institution are normally not admissible to Saint Mary's University.
- (ii) Students who have been required to withdraw from Saint Mary's, and who wish subsequently to be readmitted, must apply to the Admissions Office.
- (iii) If readmitted, students will be placed on academic probation and must fulfill those terms delineated by the Dean of the Faculty in which the student is enrolled and outlined in their letter of readmission. In agreeing to readmit a student, the Dean has the discretionary authority to set specific terms of special probation unique to each student. Students failing to satisfy all the terms of readmission may be denied the right to further registration. [See also Regulation 7b.]

Note: Students are advised that all communications concerning academic probationary status and dismissal are sent to the permanent address on file in the Service Centre. Therefore students are urged to ensure that this address is both accurate and complete.

8. Examinations

also see Senate Policy on Final Examinations
www.smu.ca/webfiles/8-1016_SenateRescheduleExams.pdf

a. At the end of a Fall or Winter semester, at the discretion of the Department concerned, a final test or examination may be held during the special periods set aside for this purpose in December and in April.

b. All final tests and examinations held during the above periods are scheduled by the Registrar. The maximum time allowed for each examination is three hours.

c.(i) In a six (6) credit hour course, no single test given in a regularly scheduled class period (50 minutes or 75 minutes) shall contribute more than 20% of the overall evaluation for that course.

(ii) In a three (3) credit hour course, no single test given in a regularly scheduled class period (50 minutes or 75 minutes) or laboratory/recitation session (up to 3 hours) shall contribute more than 35% of the overall evaluation for that course.

(iii) In the fall and winter terms, test and examinations individually or collectively contributing more than 10% of the overall evaluation of the course are not permitted to be held during the last fourteen calendar days preceding the end of classes, except as noted in (iv) below. End of term tests and examinations are to be held during the final assessment period as specified in sections, 8a. and b.

(iv) Prior to the first class date, the Dean of the Faculty may authorize a lab examination worth more than 10% of the final grade within the last 14 days preceding the end of classes. A lab examination requires the use of lab resources.

d. To be eligible to write any type of test or examination in any course, students must be properly registered in that course. Students must write all such tests or examinations at the designated times and in the designated places.

e. Students are responsible for knowing the date, time and location for writing each of their formal examinations. Students are responsible for ensuring they have up-to-date schedules. This information is posted on Banner Self Service with the student's schedule. While this is accurate when viewed/printed, it is subject to revision without any prior notice; hence students are responsible for ensuring they have up-to-date schedules. Missing an examination for reasons of misreading or misunderstanding the date, time, and location does not constitute grounds for a "special test or examination" or for rescheduling the test or examination.

f. Students are required to present their valid Saint Mary's University student identification cards at all tests and examinations for possible verification of their photographs or signatures.

g. The University acknowledges that due to the pluralistic nature of its community, some students may, on religious grounds, require alternative times to write tests and examinations. Accordingly, a student who requires an alternative test or examination time on these religious

grounds should consult with the Dean of the Faculty in which the course is offered regarding alternative arrangements. Such a request must be made in writing within one week of the announcement of the test or examination date.

h. Participation in university sanctioned activities and events may occasionally conflict with exam schedules. Students experiencing such conflicts should follow the instructions in g. (above)

i. In the case of courses delivered at extension centres, midterms and final examinations will take place at the extension centre. If the location is within the Halifax Regional Municipality, the final examination may be held on the Saint Mary's University campus, with the approval of the Dean of the Faculty.

j. In the case of distance education courses taught via the internet or other means, the course outline will specify if midterms and final examinations will be either held online or at locations in reasonable proximity to the students. Remotely offered examinations must be invigilated by an invigilator (proctor) that is approved by the course instructor

k. Supplementary examinations are not offered.

9. Evaluations

a. At the end of each semester, instructors must submit to the Registrar, through Self-Service Banner, their evaluations of all students registered in their courses. For six credit hour courses taught over two terms, interim grades will be submitted at the end of the first term and final grades at the end of the academic year. The time frames for the submission of mid-year and final grades to the Registrar are:

- (i) in the case of courses in which no formal examination was scheduled by the Registrar within the period designated by Senate for formal examinations, one week from the beginning of the examination period;
- (ii) in the case of courses in which formal examinations were scheduled by the Registrar within the period designated by Senate for such examinations, one week from the day on which the examination was written; and
- (iii) in the cases of courses taught in Summer Sessions, grades are due in the Service Centre no later than one week from the last day of instruction in the course.

Students have the right to expect their grades to be submitted by these deadlines in conformity with the faculty members' terms of appointment.

At the start of each term, any blank grades from the previous term will be assigned a grade of F.

b. Final grades are available on Self-Service one day after submission by the instructor. Grade reports are not produced.

c. Final grades are withheld from students who have money owing to the University or who have either money or books owing the University Library system.

d. Grades given at the end of a semester shall not be made known to students except by the Registrar. Under the FOI-POP legislation, it is not legal for members of faculty to publicly post grades without the written permission of the student.

e. Grade changes must be approved by the Dean of the Faculty in which the course is offered **before** they can be accepted for processing by the Registrar. Reason(s) for the change(s) is required at the time of submission.

10. Special Examinations

A student who, due to a serious illness or emergency, was detained or rendered unfit to write a required final examination, may appeal for a special examination. Elective arrangements (such as travel plans) are not considered acceptable grounds for granting an alternative examination time. A student who wishes to have such an appeal considered must:

a. Within 48 hours after the end of the final examination, report, or have a representative report (in writing if possible), to the Instructor and the Dean of the Faculty in which the course is offered, intention to appeal for a special examination and

b. Within one week after the end of the examination submit to the Dean a written request for a special examination. This request must be accompanied by an explanation of the circumstances which made it impossible for the student to write the regular examination and a medical doctor's report, or other document, which supports the appeal.

c. The Dean's decision will be communicated to the student and the instructor within one week of receipt of the request.

d. If the Dean approves the special examination, the responsibility for setting and conducting special examinations will lie with the instructor and the department. Special examinations should be completed as soon as possible and normally (i.e. wherever possible) as follows: for first term by Jan 31, for the second term by May 31, for summer session one by July 31 and for summer session two by Sept 30.

11. Academic Appeals

Students who have good reason to believe they have been subject to mistaken, improper or unjust treatment with respect to their academic work have the right to appeal to the Committee on Academic Appeals. An appeal must be based on solid evidence and not merely on injured feelings. This Committee's jurisdiction extends only to individuals currently enrolled at the University or enrolled during the previous academic year and dismissed, (i.e., the Committee's jurisdiction does not apply to individuals whose application for admission to a program at the University has not been accepted). Appeals shall be governed by the following procedures:

a. Appealing of Final Grades

The only grades that may be appealed are official final grades. Students should be aware that when a grade appeal is launched, the grade can be raised, lowered, or remain unchanged.

- (i) Students who wish to appeal a grade must first consult the instructor concerned within one month of receiving the grade and, if unsatisfied, should then consult the appropriate Chairperson and Dean. If the problem is still unresolved, students may forward the appeal to the Committee on Academic Appeals. This must be done in writing, through the Registrar, within three months from the last day of the semester in which the course is taken. This appeal statement must contain specifics as to when the instructor, the Chairperson, and the Dean were consulted, together with any other information the student considers relevant. A form to launch an appeal is available from the Registrar and students are strongly encouraged to use this.
- (ii) It is the responsibility of students and instructors to provide the Committee with all relevant available material on which the grade was based. A student's course documentation should include grade history and copies of any retained graded materials on which the student's grades were based (i.e. exercises, reports, papers, tests, examinations). This documentation shall be retained on-campus for a minimum of twelve months from the deadline of submission of grades.
- (iii) The Committee will normally appoint two qualified examiners to review the evidence presented and reconsider the grade. The examiners will submit their report and the evidence reviewed to the Chairperson of the Committee.
- (iv) On the appeal for a change of grade, the decision of the Committee shall be final.

b. Other Appeals

On appeals other than those for a change of grade, the procedures shall be as follows:

- (i) Normally within one month of the event or the decision being received by the student, the student shall submit the appeal in writing and direct it to the Committee on Academic Appeals through the Registrar.
- (ii) The Chairperson of the Committee on Academic Appeals shall forward a copy of the appeal to the Dean of the appropriate Faculty, and, if relevant, to the Chairperson of the Department and the instructor.
- (iii) On 5 May 1993, the Academic Senate of the University passed an Enabling Motion which reads in part "...that the Executive Committee of Senate [be] empowered to deal with all appeals concerning graduation which may be made prior to Convocation." Procedurally, these appeals are made to the Registrar.

c. Decision

If possible, within one month of receiving any appeal under (a) or (b) above, the Committee shall render and communicate its decision through the Registrar to all parties concerned. Pending possible further appeal, the Committee will retain the evidence presented to it for a period of six weeks after rendering its decision.

d. Appeal of Committee's Decision

Except in the case of an appeal for a change of grade, students shall have the right to appeal an adverse decision to the Executive Committee of Senate. Such an appeal shall be governed by the following procedures.

- (i) Within one month of receiving the decision of the Committee, students shall submit their appeal in writing to the Secretary of Senate who shall forward the appeal together with all previously considered evidence to the Executive Committee of Senate for its consideration.
- (ii) Within one month of receiving the appeal, the Executive Committee shall render and communicate its decision through the Secretary of Senate to the Registrar, who in turn shall communicate the decision to the student and to the Committee on Academic Appeals and take any further required action.
- (iii) The decision of the Executive Committee shall be final.

e. Fee

All appeals to the Committee on Academic Appeals must be accompanied by a payment of a \$30.00 fee. Further appeal under (d) above requires an additional payment of \$30.00. In the event of a decision favourable to the appellant, all payments will be refunded.

Notes:

- (a) The appellants and instructors will be invited to appear before the committee(s) hearing the appeal.
- (b) Members of a committee cannot participate in the hearing of an appeal arising from an action to which they were a party.

12. Credit Hours without Final Examination

Students who, for medical or compassionate reasons, have been unable to finish a course but who have satisfactorily completed the other requirements, may apply to the Dean of the Faculty for credit hours in that course without examination. They must support their request with adequate evidence. If the Dean permits the request to go forward, instructors involved will be asked to assign an estimated final grade. If the instructors judge that the student should be given credit hours for the course but are unable to determine a precise grade point grade, then they will assign the grade of AE (aegrotat). This grade will not be included in computing the grade point average. Students may apply for aegrotat standing for a maximum thirty (30) credit hours during their undergraduate program. This grade of AE is available only as a final grade and therefore cannot be awarded at mid-year for six (6) credit hour courses.

13. Course Changes

a. At the beginning of each academic session, a period of time is provided for students to alter their registration without the change being noted on their permanent records. During these periods, and subject to availability, a course (or section of a course), lab, or recitation may be added, dropped or exchanged for another.

b. For all these changes the period of time required from the first official day of classes is eight working days

(excluding Saturdays) during the academic year; five days in a summer session.

c. Changes can be effected only through Banner Self-Service. Consult the Calendar of Events for specific dates.

d. Only in extraordinary cases will a Dean or Associate Dean authorize any course changes after the time deadlines. Special forms for this purpose are available **only** from those with this signing authority.

Warning: Students are responsible for all required work in the course regardless of the date of their entry into the course. Students can expect reasonable accommodation if they are impacted negatively by late registration and/or course changes. Also, tuition fees are charged from the first day of classes, even when a student registers late.

e. Students cannot be registered in a course, lab, or recitation which has reached its maximum enrolment and therefore is regarded as being full. In exceptional circumstances, the course instructor or heads of academic units (i.e., chairperson, subject area representatives, directors of divisions, or area coordinators) may authorize a student to register in a closed course, lab, or recitation. This must be done through an over-ride on the student information system. The student may then register in the course. Permission to register does not mean that the student is registered.

14. Declaration or Change of Major, Area of Concentration, Honours, or Minor

a. In order to declare or change a major, area of concentration, honours, or minor, students must file a Declaration of Major form with the Registrar. This form must have been signed by the Chairperson of the Department in which the student has been authorized to pursue a major, area of concentration, honours, or minor. Students are strongly urged to declare their major, area of concentration, honours, or minor before registering for their final sixty (60) credit hours and before 1 June.

b. The regulations governing the major, area of concentration, honours, or minor program will be those in effect at the time of declaration or change.

c. Students are advised that general regulations governing majors, areas of concentration, honours, or minors are found below in subsection (d) of this regulation, and also in Academic Regulations 20 and 21; specific Faculty regulations are found in Section 3 of this *Calendar*; and specific departmental and subject area regulations are found in the relevant parts of Section 4. Students should check carefully because minors are not available in all subject areas.

d. Students must file a Change of Registration form indicating the dropping of their major, area of concentration, honours, or minor if they no longer intend to pursue it. Otherwise it will be assumed to be valid and the student will be expected to complete the requirements in order to qualify for graduation.

Note: Students are advised that possession of the minimum qualifications does not guarantee admission to a particular academic program. Limits to the number of students who can be in a particular program at any one time exist and depend very much on the number of faculty members available in a particular academic unit.

15. Procedure for Changing Faculty

In order to register an official Change of Faculty, students must file with the Registrar, a Change of Registration form which has been signed by the Dean of the Faculty into which the students intend to transfer. Students should be aware that a change of Faculty is not automatic. Students on academic probation at the time of authorized transfer of Faculty or academic program automatically remain on academic probation.

Note: Students are advised that possession of the minimum qualifications does not guarantee admission to a particular academic program. Limits to the number of students who can be in a particular program at any one time exist and depend very much on the number of faculty members available in a particular academic unit.

16. Withdrawing from a Course

a. In the case of any course, after the time limits indicated in 13b above have expired, and provided the course still has one quarter of the instruction time remaining, students may withdraw from the course. In such cases a grade of W will automatically be awarded. Students withdrawing from a course after these time limits automatically receive a grade of F. Students should refer to Regulation 4 d regarding feedback that must be provided prior to the last day to withdraw without academic penalty to allow for an informed decision to be made to withdraw from a course.

b. A student who registers for a course and does not withdraw is considered to be taking the course, and if no grade is assigned by the instructor, a grade of F will be recorded automatically. Non-attendance at class or non-payment of tuition fees does not constitute an official withdrawal from a course, lab, or recitation for which the student initiated registration procedures.

c. For purposes of registration, sections of courses, labs, and recitations are considered the same as individual courses; hence academic regulations, procedures, and deadlines apply to all types of changes.

d. Students are advised that if they completely withdraw from all their courses prior to the end of the add/drop period, a \$50.00 processing/administrative fee will be levied.

e. Students who are granted a complete retroactive withdrawal (regardless of the number of courses involved) will be charged a \$50.00 processing/administrative fee.

Notes:

- (i) Students must withdraw through Banner Self-Service. Alternatively, a letter of withdrawal can be forwarded

to the Registrar which must include the student's name, address, Saint Mary's I.D. number, and the courses (with section numbers if applicable), labs, and recitations involved in the withdrawal. Students must initiate the withdrawal from all courses, labs, and recitations. The automatic withdrawal from courses because of the withdrawal from another course which is a stated prerequisite does not occur. This same principle applies when students fail a course which is a prerequisite for another for which they have already registered. In these instances, students must initiate the withdrawal from the course(s) for which they lack the stated prerequisite.

- (ii) Students should note that the deadlines for academic withdrawal differ from those for financial adjustment and possible refund of tuition and related fees.

17. Retaking a Course

a. Students may retake any course. Each course counts only once as credit hours in the academic program. In accordance with regulation 6b above, only the most recent grade is included in the cumulative GPA, even if this is a lower grade.

b. In the cases where courses have been renumbered, changed in level, or where a six (6) credit hour course (formerly referred to as a "full course") has been split into two three (3) credit hour courses (formerly termed "half courses") or vice versa, a student who received credit hour recognition for the original course is not entitled to repeat the course in its new format or on its new level for additional credit hour recognition.

c. Students will not ordinarily be given credit hours for a course taken at another educational institution which they have already taken and failed at Saint Mary's.

18. Withdrawal for Academic Reasons

Students whose participation, work or progress is deemed to be unsatisfactory may have their registration terminated and be denied the right to continue at the University by the Dean of their Faculty.

19. Academic Integrity

See the section preceding Academic Regulations, entitled Academic Integrity and Student Responsibility

20. Advanced Standing

a. University and Other Post-Secondary Institutions

After an official transcript has been received by the Registrar, and providing the students have identified the subject area(s) in which they intend to major or declare an area of concentration, students transferring from other recognized universities or post-secondary institutions to an academic program at Saint Mary's may be given advanced standing credit hours, if appropriate, in consultation with the Dean of the Faculty. To obtain a first baccalaureate degree or a diploma, the student must successfully complete a

minimum of 50% of the credit hours required for their degree, diploma or certificate program at Saint Mary's. Among these credit hours, students must complete a minimum of 50% of the credit hours required for the major, honours or concentration at Saint Mary's. Note that the equivalency of courses conducted at other institutions is at the discretion of the Dean of the Faculty.

Notes:

(a) A request for advanced standing will not be considered after one year from the date of the student's first registration in an academic program at Saint Mary's.

(b) Advanced standing will be given only for courses with satisfactory grades as required by the relevant Saint Mary's program. In accordance with the Pan Canadian Protocol on Transfer Credits, all first and second year courses taken and passed at Canadian universities will be recognized for credit. Deans have the discretion to stipulate a minimum grade which must be attained to receive credit for a specific Saint Mary's course, otherwise elective credit may be granted. Advanced standing for third and fourth year courses is at the discretion of the Dean.

(c) Credit will not automatically be recognized for university courses completed more than ten (10) years prior to the students' return to University study. The Dean's assessment of the number of credit hours that students must complete to satisfy their academic program is final.

(d) Normally, for courses completed at universities outside Canada, a minimum grade of C (65%) is required for advanced standing.

(e) Advanced standing for courses taken at community or private colleges is granted on a case by case basis, except where formal articulation agreements exist.

b. Prior Learning Assessment and Recognition (PLAR)

PLAR recognizes learning acquired outside post-secondary institutional settings when that learning is comparable in scope and extent to University courses. Persons applying for PLAR for advanced standing are required to document that learning to the satisfaction of the academic unit in which the credit is sought and have it approved by the Dean of the Faculty in which the unit is housed.

21. Transfer Credit Hours

a. While registered at Saint Mary's University, students may be authorized by the appropriate Dean to take a course(s) at another academic institution for transfer credit hours to an academic program at Saint Mary's. Students seeking such permission must apply to the Dean using the Letter of Permission form, available from the Service Centre. The letter of application should state why the student wishes to take the course at another institution, how the requested course fits into the student's academic program, and whether it has been determined that no equivalent or other suitable course is available at Saint Mary's University. A full description of the course(s) for which transfer credit hours are requested must be included.

The description from an academic calendar will suffice. Students are responsible for completing the proper application and registration procedures at the designated institution. These same procedures apply to summer session courses.

b. Students who are permitted to take a course(s) at an institution other than Saint Mary's by means of a Letter of Permission are responsible for paying all appropriate fees to the institution at which they are taking the course(s). The only exception is a few formal exchange programs, details of which are available from Financial Services.

c. Before transfer credit hours can be considered, students must have the institution concerned send to the Registrar an official transcript of the work undertaken.

d. Normally, for courses completed at universities outside Canada, a minimum grade of C (65%) is required for transfer credit.

e. All courses at Canadian Universities for which a student receives a passing grade [D (or equivalent) or higher] on Letter of Permission will be accepted for transfer credit hours. However, the Deans have the authority to stipulate a minimum grade which must be attained to transfer a particular course for fulfillment of a particular degree or program requirement.

f. Students should also note that in some departments a grade of C or higher is required if the course is to be considered as part of the students' major, area of concentration, honours, or minor program.

g. In accordance with regulation 6e Grades for courses taken on a Letter of Permission at other institutions covered by the Pan Canadian Agreement are included in GPA calculations.

h. Letters of Permission will not be authorized on a retroactive basis.

Note: Students should note that **at least 50%** of all credit hours for any academic program (degree, diploma, or certificate) must be taken at Saint Mary's. The only exceptions to this are exchange programs with which Saint Mary's University has entered into formal agreements, and formal joint programs.

22. Advanced Standing Credit by Examination for Undergraduate Degree Programs

Such credits are not available.

23. Students Whose First Language Is Not English

In the majority of cases the primary language of instruction at Saint Mary's University is English. Therefore, students for whom English is not their first language and who do not have the facility to communicate well, both verbally and in writing, are strongly encouraged to register for English language training prior to registering in their academic program at the University.

24. Requirements of Two Academic Programs (Dual Program)

a. If students are endeavouring to satisfy the requirements of two academic programs at the University, it may not be possible to satisfy the requirements of both of these within the minimum number of credit hours stipulated for either or both of them. The two programs include, but are not limited to: dual degree programs; double major/concentration; major in one subject and honours in another; and degree and certificate programs. Students are advised that they must meet the specific requirements of each portion of their academic program or programs in order to qualify for graduation.

b. It is possible to satisfy simultaneously the requirements for two baccalaureate degrees in the Faculties of Arts, Business or Science. To formally declare their status as dual degree, students must complete the appropriate form in the Service Centre and have it signed by each appropriate Dean. Prior to signing this form, each Dean will assess the students' university course work to date and inform the Registrar in writing of other general requirements that must be completed in order to earn a degree within that Faculty. The Registrar, in turn, will officially notify the student. Specific program requirements should be discussed with the Chairperson of the Department of the students' major or area of concentration. Students in a dual degree program are advised that in order to receive the two degrees at the same Convocation, they must meet the specific requirements of each portion of their academic program(s). Students must complete the requirements of both degree programs for a minimum of 150 credit hours in order to qualify for graduation. Dual degree students will receive both of their degrees at the same Convocation. Students who complete the requirement for only one degree and who graduate are considered to have discontinued the second degree program. Should they subsequently wish to resume their studies in the second faculty, they must reapply for admission and, if admitted, are considered to be pursuing a second undergraduate degree and hence required to follow the appropriate regulations and guidelines.

25. Second Undergraduate Degree

a. Students who hold a first baccalaureate degree may obtain a second baccalaureate degree in the same Faculty, but with a different major, or in a different Faculty and with a different major, by completing all requirements for that degree as specified by the Dean of that Faculty. Advanced standing may be granted for courses completed in the first degree. The student must successfully complete a minimum of 50% of the credit hours required for the second degree program at Saint Mary's. Among these credit hours, students must complete a minimum of 50% of the credit hours required for the major, honours or concentration at Saint Mary's. If the first degree was earned at Saint Mary's, a minimum of 30 additional credit hours must be earned at Saint Mary's.

b. All students who wish to register in a program leading to a second baccalaureate degree must complete the appropriate application form available from the Office of

Admissions. Their application must include the subject(s) of their major(s).

c. Undergraduate Certificates and Diplomas as Second Credentials

- (i) Students who already hold a Saint Mary’s University degree and subsequently wish to obtain a Saint Mary’s University undergraduate certificate or undergraduate diploma are required to apply officially to the Admissions Office. The academic administrator of that specific program will automatically evaluate the student’s previous academic work and advise the Registrar officially of the precise courses remaining to qualify for this second credential. This evaluation is an integral part of the admission process and, hence, an acceptance cannot be confirmed nor can a student register until this process has been completed.
- (ii) Students who hold a degree from a recognized post-secondary institution other than Saint Mary’s University are required to follow the admission procedures delineated above in (i). If admitted, the student must complete a minimum of 50% of the courses required for that academic program at Saint Mary’s University, including all additional courses specified in individual program requirements.
- (iii) In addition to regular degree programs, the undergraduate certificate programs to which this regulation applies are:
 - Certificate in Atlantic Canada Studies
 - Certificate of Chinese Studies
 - Certificate of Proficiency in French
 - Certificate in German Studies
 - Certificate of Linguistics
 - Certificate of Japanese Studies
 - Certificate in Spanish Language and Hispanic Culture
 - Certificate of Human Resource Management
 - Certificate in Financial Instrument Analysis
 - Certificate in Mathematical Science for Education

The undergraduate diploma programs to which this regulation applies are:

- Diploma in Engineering
- Diploma in Forensic Sciences

- (iv) Students are advised to check carefully the grade point average requirements for the specific certificate or diploma program in which they plan to enroll.

26. Certificate of Honours Equivalency

a. The Certificate of Honours Equivalency was established by the University Senate to provide a means of granting appropriate recognition to those Saint Mary’s graduates who did not follow the regular honours program of the University but have subsequently completed all requirements for graduation in such a program, and having already received a degree, cannot have a second undergraduate degree in the same Faculty conferred upon them. To earn the Certificate of Honours Equivalency,

students must complete all the requirements (or their equivalents) for the appropriate honours program.

b. Students who have earned a first undergraduate degree from another post-secondary institution may be admitted to the Certificate if they have achieved a cumulative grade point average of 3.00 or above. Admission requires the approval of the appropriate department chairperson and the Dean. Advanced standing will be granted in accordance with regulation 20 above. Students must complete at least 30 additional credit hours at Saint Mary’s and satisfy all course and grade requirements for the honours program.

27. Convocation Dates, Degrees, Diplomas, and Certificates

a. Students **MUST** file an Application for Graduation from a specific academic program, accompanied by a degree audit (manual or computer generated), with the Registrar by the dates stipulated in the University Calendar of Events. If during the course of the student’s final academic year at the University, a change is made in the Faculty or in the type of program in which the student is enrolled (i.e., from honours to major), it will be necessary for the student to officially withdraw their original application and reapply for graduation.

b. There are three convocations annually, May, October and January, with ceremonies held at each. Once all requirements are completed, students must graduate at the next Convocation. Students are permitted to receive two parchments at one Convocation only in the following instances, namely, registered in a dual degree program (see Academic Regulation 24b above) or a degree and diploma/certificate program.

c. Students are required to obtain the academic regalia appropriate to their academic program at the times, dates and locations indicated in the *Graduation Booklet* which is mailed to all students who have filed an application for graduation and who qualify as potential graduates. This mailing occurs approximately six weeks prior to graduation. It is the students’ responsibility to ensure that they have received a copy of the publication.

Students will not be permitted to convocate if they are not attired appropriately and in the academic regalia designed for their particular academic program at Saint Mary’s University.

d. The parchment shows the academic designation (i.e., degree, diploma, or certificate) as well as any academic distinction (as defined in Academic Regulation 29) which has been conferred but not the major, area of concentration, or minor. This, however, is noted in the students’ official academic record and hence appears on any transcript issued, whether official or unofficial. The subject of honours is shown on the parchment.

e. The University grants the following degrees:

- | | |
|----------------------|---------|
| Bachelor of Arts | B.A. |
| Bachelor of Commerce | B.Comm. |

Bachelor of Environmental Studies	B.E.S.
Bachelor of Science	B.Sc.
Master of Applied Economics	M.A.E.
Master of Arts	M.A.
Master of Business Administration	M.B.A.
Master of Finance	M.Fin.
Master of Management - Cooperatives & Credit Unions	M.Mgt.
Master of Science	M.Sc.
Master of Science in Computing & Data Analytics	M.Sc. CDA
Master of Technology Entrepreneurship and Innovation	M.TEI
Doctor of Philosophy in Astronomy	Ph.D.
Doctor of Philosophy in Applied Science	Ph.D.
Doctor of Philosophy in Business Administration -Management	Ph.D.
Doctor of Philosophy in Industrial and Organizational Psychology	Ph.D.
Doctor of Philosophy in International Development Studies	Ph.D.
Doctor of Civil Law, Honoris Causa	D.C.L.
Doctor of Commerce, Honoris Causa	D.Comm.
Doctor of Education, Honoris Causa	D.Ed.
Doctor of Fine Arts, Honoris Causa	D.F.A.
Doctor of Laws, Honoris Causa	LL.D.
Doctor of Letters, Honoris Causa	D.Litt.
Doctor of Science, Honoris Causa	D.Sc.

The University grants the following diplomas and certificates:

Certificate in Atlantic Canada Studies	Cert. A.C.S.
Certificate of Chinese Studies	Cert.C.S.
Certificate of Proficiency in French	Cert.Fren.
Certificate of German Language and Culture	Cert.G.L.C..
Certificate of Human Resource Management	Cert. H.R.M.
Certificate in Financial Instrument Analysis	Cert. F.I.A.
Certificate of Honours Equivalency	Cert. Hons.
Certificate of Linguistics	Cert. Ling.
Certificate of Japanese Studies	Cert. J.S.
Certificate of Spanish and Hispanic Culture	Cert. S.H.C.
Certificate in Mathematical Sciences for Education	Cert. M.S.E
Cooperative Education Certificate	Coop.
Diploma in Engineering	Dip.Egne.
Diploma in Forensic Sciences	Dip.F.Sc.
Graduate Diploma in Co-operative Management	G. Dip Mgt

f. Details of the University’s policies on the reissuing of parchments are available from the Registrar.

g. Students whose accounts with either or both of Financial Services or the Library Systems are in arrears may be denied the right to graduate until the debt is cleared.

28. Degree, Diploma, or Certificate in Absentia

Provided that candidates have officially notified the Registrar in writing at least ten days in advance that they will not be present at Convocation, they may receive their parchment in absentia.

29. Distinctions

a. In the undergraduate degree and diploma program, distinctions are awarded to successful candidates on the basis of overall performance as measured by the cumulative grade point average as specified below:

Cumulative Grade Point Average	B.A., B.Sc., & B.Comm.	Distinction: Diploma in Engineering
4.00 - 4.30	summa cum laude	With greatest distinction
3.85 - 3.99	magna cum laude	With great distinction
3.70 - 3.84	cum laude	With distinction

b. No distinctions are awarded in graduate and certificate programs.

30. University Medals

At each Spring Convocation the following are presented:

a. Governor General’s Silver Academic Medal

This medal is awarded annually to the undergraduate deemed to be the top candidate.

b. Faculty and Division Medals

In the Faculties of Arts, Business and Science; and in the Division of Engineering, medals are awarded to the undergraduate students with the highest cumulative grade point average.

Notes:

(a) In the case of undergraduate degrees and diplomas, the cumulative grade point averages will be calculated on the same basis as that for determining distinctions (see Academic Regulation 29). In the case of a tie, Senate will determine the recipient of the medal. In the case of graduate degrees, students’ entire graduate academic records will be considered.

(b) Students who graduate in the Fall or January Convocation will be considered for medals at the next Spring Convocation.

31. Dean’s Lists for Undergraduate Programs

Saint Mary’s University recognizes students of high academic standing by placing them on the Dean’s List. Students enrolled in Bachelor degree programs or the Diploma in Engineering are eligible for placement on the Dean’s List. Evaluation for placement on the Dean’s List occurs at the end of the academic year (i.e., shortly after May 1st). Placement on the Dean’s List is recorded on the student’s academic transcript.

a. New students, admitted in the previous September, will be automatically placed on the Dean's List if they have completed at least 24 credit hours in the academic year with a GPA of 3.67 out of 4.3 or above.

b. Returning students will be automatically placed on the Dean's List if they have completed at least 30 credit hours in the previous 12 months with a GPA of at least 3.67 out of 4.3.

Students who do not fall into the above two categories may officially apply for placement on the Dean's List. Placement will be based upon achievement of a GPA of at least 3.67 out of 4.3 on at least 30 credit hours completed between the start of a term in a previous year and the end of the current academic year. After having been placed on the Dean's List, these students must take at least 30 additional credit hours to qualify again for placement on the Dean's List.

32. Students' Academic Records and Transcripts

a. Students' academic records, including their official University files, are the property of the University. Access to those records and release of information from them will be governed by the University's policies and by the laws of the Province (Nova Scotia's Freedom of Information and Protection of Privacy Act, S.N.S. 1993, chapter 5) and the country (Personal Information Protection and Electronic Documents Act). As the University is committed to the integrity of its student records, students are required to provide, on their Application for Admission, their complete legal name. Any requests to change that name, by means of alteration, deletion, substitution or addition, must be made in writing to the Registrar and accompanied by appropriate supporting documentation. The University's official policy on this subject is contained in the pamphlet entitled, "Policy Regarding the Release of Information about Students". Copies are available from the Registrar.

NOTIFICATION OF DISCLOSURE OF PERSONAL INFORMATION TO THE MARITIME PROVINCES HIGHER EDUCATION COMMISSION (MPHEC)

The MPHEC collects student identification information (student's name, student ID number), student contact information (address and telephone number), student demographic characteristics, and enrolment information from Saint Mary's University.

Enrolment and demographic information is used by MPHEC in the preparation of basic statistics, as well as to understand student pathways through to graduation, and the factors that affect these pathways. The information assists governments and institutions in decision-making and in enhancing the post-secondary learning environment.

Personally-identifying information is used only for limited purposes:

1) To create record linkages between data from different institutions in order to track student pathways among institutions. Once records are linked, personal information is deleted from the research data file.

- 2) To communicate with Saint Mary's University and Statistics Canada during the data validation process
- 3) Compile a student/graduate contact list for an MPHEC survey

The legal authority for these activities is provided by a data sharing agreement between Saint Mary's University and the MPHEC, as well as the Maritime Provinces Higher Education Commission Act. The Act requires that all data received by the Commission is kept confidential, and ensures the protection of personal information. More information about the MPHEC may be found at www.mphec.ca. A copy of its Standard for Maintaining Confidentiality is available here: <http://www.mphec.ca/general/confidentiality.aspx>

Questions may be addressed to:
 Director, Research and Data Analysis
 Maritime Provinces Higher Education Commission
 82 Westmorland St. Suite 401
 P.O. Box 6000
 Fredericton NB E3B 5H1
 Phone: (506) 453-2844
 Fax: (506) 453-2106
 Email: mphec@mphec.ca

NOTIFICATION OF DISCLOSURE OF PERSONAL INFORMATION TO STATISTICS CANADA

The federal Statistics Act provides the legal authority for Statistics Canada to obtain access to personal information held by educational institutions. The information may be used for statistical purposes only, and the confidentiality provisions of the Statistics Act prevent the information from being released in any way that would identify a student.

Students who do not wish to have their personally-identifying information submitted to MPHEC or Statistics Canada will notify Saint Mary's University by contacting the Registrar.

b. Students' transcripts of records are privileged information and to that end will not be released by the Registrar to any individual outside the University without the prior written permission of the students. As required by their appointment, academic administrators within the University have access to students' complete academic records.

c. Details on ordering transcripts can be found at <http://www.smu.ca/academics/ar-transcripts.html>

Transcripts include the following information:

- (i) Faculty, program, major, area of concentration, minor, and/or honours;
- (ii) advanced standing and/or transfer credit hours;
- (iii) grades (failing as well as passing) in respect of all academic work attempted while registered at Saint Mary's.

d. Where appropriate, reference is also made to:
 (i) placement and continuance on, and removal of, academic probation;

- (ii) requirement to withdraw for academic weakness, or for non-academic (i.e., disciplinary) reasons;
- (iii) distinctions and scholarships, including placement on the Dean's List.

NOTE: All transcripts carry only the student's birth month and day, not the birth year.

e. While the University takes every reasonable precaution to ensure the confidentiality of student records, students should be aware that the University is connected to a number of external electronic systems, and a number of academic and administrative offices have access, at least on a display basis, to the Student Information System. All post-secondary institutions in Nova Scotia are also governed by the Freedom of Information and Protection of Privacy legislation (FOIPOP).

33. Safety and Responsibility in Officially-Sanctioned University Activities

Saint Mary's University has policies on the safety and responsibility of students in laboratories, on field courses/trips, in exchange programs/courses, and involved in other university-sanctioned activities. Copies of those policies are available through the Offices of the Deans of the Faculties, the Office of the Safety Coordinator, and the Office of the Director of International Activities. In courses where a safety policy is particularly relevant because of the special nature of the course, or because of the place of study, instructors will make it known to students in writing at the first class, or in the case of study programs outside Nova Scotia, before the program begins.

34. University Research Ethics Board (REB)

It is the responsibility of all members of the University community - students, faculty, administrators, and staff - carrying out research involving human subjects to seek approval from the University Research Ethics Board (REB) for their research. Student submissions to the REB should be made through the thesis supervisor. For further information, please consult the REB website:
<http://www.smu.ca/research/research-ethics-board.html>.

Registration

1. Procedures

Actual course registration takes place through Self Service Banner: <http://www.smu.ca/future-students/cs-registering-for-courses.html>

2. Change of Registration: Biographical Information

In addition to changes of courses, labs, and recitations, change of registration also consists of maintaining the accuracy of biographical information (i.e., addresses, and telephone numbers, name). Only students can initiate these changes through Banner Self-Service. Only the Service Centre can officially process changes submitted in writing. Changes made in any other way, formally or informally, are not honored.

3. Registration in Dual Academic Programs

Students are advised that if they are registered in a dual academic program and opt to graduate with only one of these qualifications, they are assumed to have discontinued the second program. To reactivate their status, students must reapply for admission and qualify for the second program with at least the minimum number of credits specified for that second specific program (see Academic Regulations 24 and 25).

4. Registration in Directed Studies/Special Topics/Reading Courses

Before students can register for such a course(s), it is necessary for information to have already been received and processed in the Service Centre with respect to the precise course number (and section number, if applicable), and also the faculty member who will be responsible for the course. If you are planning to register for such a course, please ensure that you have made the necessary arrangements with the faculty member and that the Chairperson of the Department in which the course is offered has made this information available in writing to the Assistant Registrar-Scheduling. Until this information has been received and processed, registration in that course cannot be undertaken. Attention to this detail will facilitate registration for all concerned.

6. Alterations to Academic Timetable

The University reserves the right to change the times and the academic instructor(s) of a course from those advertised in the official Timetable posted on Banner Self-Service.

7. Cancellation of Courses

If the number of students registered for a course (or section of a course) is insufficient to warrant it being offered, that course may be cancelled by the Dean of the Faculty. Other circumstances may also require the cancellation of a course or a section thereof by the Dean of the Faculty and/or the Vice President, Academic and Research.

8. Addresses

During the academic year, all communications are mailed to local addresses. Therefore students are urged to keep theirs up-to-date in the Service Centre. During the summer months, communications are normally sent to the students' permanent addresses unless an alternate address has been filed with the Service Centre prior to the advertised deadlines.

9. Identification Cards

At the time of first registration, students are required to obtain an I.D. card. These I.D. cards provide students with an official University identification which can be required for the writing of examinations and tests. [See Academic Regulation 8(e).] These cards also serve as Library cards, permit computer lab use, allow access to The Tower (Fitness and Recreation Centre), and enable students to qualify for discounts at some local businesses. There is no charge for the initial I.D. card.

Each subsequent year I.D. cards are validated by the Library at no cost. A replacement card costing \$15.00 for lost or damaged cards will be issued with proof of valid registration.

Students can obtain their I.D. card at the Library or submit an electronic ID photo using our online Photo ID Submission form: <http://www.smu.ca/academics/id-card-application.html>

Faculties and Programs

Faculty of Arts
Sobey School of Business
Faculty of Education
Faculty of Science
School of the Environment

Section

3

Faculty of Arts

Dr. Margaret MacDonald, Dean
 Dr. Peter L. Twohig, Associate Dean
 Dr. Madine VanderPlatt, Associate Dean
 Necia Browne, Program Advisor
 Emily Anderson, Program Advisor

1. General Information

The Faculty of Arts offers a wide range of programs based on research in the Humanities, Social Sciences and Sciences. Students have many opportunities to include both traditional disciplines and/or new and interdisciplinary fields of study in their degrees. In the Faculty of Arts, students can earn a Bachelor of Arts Degree (B.A.), and a Bachelor of Environmental Studies Degree (B.E.S.).

The Bachelor of Arts (BA) is a well-established, foundational degree recognized both across Canada and around the world. A general education component that helps students develop a broad base of knowledge and skills is central to the degree. Students also specialize in the theory and methods of selected fields of study. The B.A. degree encourages students to develop a broad sense of citizenship, international experience, a uniquely interdisciplinary perspective, and it prepares students for entry into various professional schools (e.g. education, law, social work), employment in various careers, or graduate-level training and research.

The following three types of B.A. degrees are available:

BA – Major	BA – Honours	BA – General (Double Concentration)
<p>Students develop a considerable level of conceptual sophistication, intellectual autonomy, and specialization in a particular field.</p> <p><i>This is the standard B.A. program taken by most students.</i></p>	<p>Students develop a high level of conceptual sophistication, intellectual autonomy, and specialization in a particular field. Students carry out independent scholarly research and show capacity for advanced intellectual work.</p> <p><i>This program is intended for high-achieving students planning post-graduate studies.</i></p>	<p>Students develop a moderate level of conceptual sophistication, and focus in at least two fields of study.</p> <p><i>This degree can satisfy entry requirements for certain professional programs, or provide access to certain careers.</i></p>

New students are normally admitted into the BA-Major program (120 credit hours). Alternatively, students may choose the BA-General program (90 credit hours). Students wishing to complete a BA-Honours program may seek admission at a later stage provided they have achieved a minimum Grade Point Average of 3.00.

2. Requirements for Completing a B.A. Degree

BA – Major	BA – Honours	BA – General (Double Concentration)
120 credit hours	120 credit hours	90 credit hours
Basic Arts Requirements (see details below)	Basic Arts Requirements (see details below)	Basic Arts Requirements (see details below)
66 credit hours: 2000 level or higher in Arts	66 credit hours: 2000 level or higher in Arts	48 credit hours: 2000 level or higher in Arts
A minimum of 36 and maximum of 48 credit hours to complete a selected Major (as specified by Departments or Programs).	At least 60 credit hours in the Honours subject, of which 48 credit hours must be at the 2000 level or higher	24 distinct credit hours in each of two Arts areas (for a total of 48 to complete the two concentrations) with at least 18 in each area at the 2000 level or above.

BA – Major	BA – Honours	BA – General (Double Concentration)
Minimum Grade Point Average of 2.00 in the credits constituting the Major.	Minimum Grade Point Average of 3.00 in the credits constituting the Honours subject, with grades of B or higher in at least 48 credit hours, and no grade lower than C.	Minimum Grade Point Average of 2.00 in the credits constituting the two concentrations.
A Minor may be declared as part of the degree program.	A Minor may be declared as part of the degree program.	Minors in any Arts areas are <u>not</u> allowed. A Minor in a non-Arts area or a Minor in Business may be declared.
Up to thirty (30) credit hours from non-Arts fields of study may count toward the degree.	Up to thirty (30) credit hours from non-Arts fields of study may count toward the degree.	Up to eighteen (18) credit hours from non-Arts fields of study may count toward the degree.
Minimum Degree Grade Point Average of 2.00	Minimum Degree Grade Point Average of 3.00	Minimum Degree Grade Point Average of 2.00
COOP Degree Option Available (details directly below)	COOP Degree Option Available (details directly below)	

3. Basic Arts Requirements - *The First Thirty Credit Hours*

The *Basic Arts Requirements* are the “general education” core of the B.A. degree, and are designed to develop the broad base of knowledge and skills that are central and foundational for any B.A. degree. Students are strongly encouraged to build their first year (the first 30 credit hours) using the *Basic Arts Requirements* as the framework.

<i>Basic Arts Requirements</i>		
a.	English 1205 or at the discretion of the Chairperson of the Department of English Language and Literature, an alternative three (3) credit hours in English	Development of literacy and cultural understanding
b.	Six (6) credit hours from one or two of the following: Philosophy 1200 (Critical Thinking) (No other Philosophy course satisfies this requirement.) Or Mathematics [including MGSC 1205; MGSC 1206; and CISY 1225] Or a language other than English Or a natural science (except Psychology)	Development of logical reasoning and analytical skill
c.	The equivalent of nine (9) credit hours from at least TWO of the following Humanities: Classics, English other than ENGL 1205, History, Philosophy other than PHIL 1200, Religious Studies, and Modern Languages courses on literature and/or culture	Interpretation of human imagination and experience
d.	The equivalent of twelve (12) credit hours from at least two of the following Social Sciences: Anthropology, Economics, Geography, Linguistics, Political Science, Psychology, and Sociology. (A maximum of six (6) credit hours will be counted from any one area.)	Analysis of structures and systems of social life and aspects of nature

Programs in the Bachelor of Arts

	Honours BA (120-credit-hr)	BA Major (120-credit-hr)	BA Double Concentration (90-credit-hr)	Minor	Certificate	Elective Courses
Anthropology	✓	✓	✓	✓		✓
Arabic						✓
Asian Studies	✓	✓	✓	✓		✓
Atlantic Canada Studies	✓	✓	✓	✓	✓	✓
Chinese					✓	✓
Classics		✓	✓	✓		✓
Criminology	✓	✓	✓	✓		
Culture, Race and Resistance				✓		✓
Dramatic Literature				✓		✓
Economics	✓	✓	✓	✓		✓
Education						✓
English	✓	✓	✓	✓		✓
English Language				✓		✓
Entrepreneurship		✓				
Film Studies				✓		✓
French	✓	✓	✓	✓		✓
Geography	✓	✓	✓	✓		✓
German Studies			✓	✓	✓	✓
Health, Wellness and Sport in Society					✓	✓
Hispanic Studies					✓	
History	✓	✓	✓	✓		✓
Indigenous Studies				✓		✓
International Development Studies	✓	✓	✓	✓		✓
Irish Studies		✓	✓	✓		✓
Japanese					✓	✓
Latin American Studies				✓		
Linguistics	✓	✓	✓	✓	✓	✓
Mathematics	✓	✓	✓	✓		✓
Peace & Conflict Studies				✓		✓
Philosophy	✓	✓	✓	✓		✓
Political Science	✓	✓	✓	✓		✓
Psychology	✓	✓	✓	✓		✓
Religious Studies	✓	✓	✓	✓		✓
Social Justice & Community Studies				✓		✓
Sociology	✓	✓	✓	✓		✓
Spanish		✓	✓	✓	✓	✓
Women & Gender Studies						✓

4. Requirements for Completing a B.E.S Degree

Bachelor of Environmental Studies		
120 Credit Hours	Year 1	<ul style="list-style-type: none"> • 21 credit hours in core social and life sciences courses • 3 credit hours in Communications • 6 credit hours in Humanities
	Year 2	<ul style="list-style-type: none"> • 15 credit hours in core cultural geography and life sciences courses • 6 credit hours in community development courses • 3 credit hours in environmental thought courses • 3 credit hours in policy courses • 3 credit hours in biogeography
	Year 3	<ul style="list-style-type: none"> • 3 credit hours in environmental management • 3 credit hours in environmental science courses • 3 credit hours in economic development courses • 3 credit hours in research methods courses • 6 credit hours in environmental thought and communications • 9 credit hours in approved BES electives at the 2000-level or above • 3 credit hours of free electives
	Year 4	<ul style="list-style-type: none"> • 9 credit hours in core capstone courses • 9 credit hours in approved BES electives at the 2000-level or above • 12 credit hours of free electives

For details about program requirements and course descriptions, please refer to the Environmental Studies section of the Academic Calendar.

5. Declaration of Program

Bachelor of Arts - Major

B.A. students, in consultation with the designated Department and/or Program advisor, must formally declare the particular field of study in which they wish to take their Major **not later than the completion of sixty (60) credit hours**. For full-time students, this normally means **by the end of their second year**.

It is possible to declare a *Double Major* (i.e., two majors, one in each of two different subject areas). It is also possible to declare a *Minor* as part of the Bachelor of Arts – Major degree program.

The Faculty of Arts offers *Major* programs in the following fields of study:

- Anthropology
- Asian Studies
- Atlantic Canada Studies
- Classics
- Criminology
- Economics
- English
- Entrepreneurship
- French
- Geography
- Spanish and Hispanic Culture
- History

- International Development Studies
- Irish Studies
- Linguistics
- Mathematics
- Philosophy
- Political Science
- Psychology
- Religious Studies
- Sociology

The regulations governing the Major program will be those in effect at the time of the declaration of the Major.

It is possible for students to change their Major at a later stage.

Bachelor of Arts – Honours

The Faculty of Arts offers Honours programs in the following fields of study:

- Anthropology
- Asian Studies
- Atlantic Canada Studies
- Criminology
- Economics
- English
- French
- Geography
- History
- International Development Studies
- Linguistics

- Mathematics
- Philosophy
- Political Science
- Psychology
- Religious Studies
- Sociology

It is possible to take *Double Honours* in any two of these fields of study. It is also possible to declare a *Minor* as part of the Bachelor of Arts – Honours degree program.

B.A. students, in consultation with the designated Department and/or Program advisor, must formally declare the particular field of study in which they wish to take an Honours degree **after completing eighteen (18) credit hours in the field**, or after completing sixty (60) credit hours in the BA.

The prerequisite for admission into the B.A. – Honours is a minimum cumulative grade point average of 3.00. Students seeking admission to the B.A. – Honours will be assessed also on the basis of their overall academic record.

To continue in the program, students must achieve a minimum degree grade point average of 3.00. Students are advised that some academic units have stipulated a higher minimum cumulative grade point average.

To graduate, students must achieve a minimum degree grade point average of 3.00. Students are advised that some academic units have stipulated a higher minimum cumulative grade point average.

For a double honours degree, students must complete not fewer than forty-two (42) credit hours in each of two honours subjects. At least sixty (60) of these credit hours must be at the 2000 level or above, including a minimum of twenty-four (24) credit hours in each subject. Students are required to have a minimum grade point average of 3.00 in the double honours courses, with grades of B or higher in at least sixty-six (66) credit hours, and no grade lower than C.

Bachelor of Arts – General (Double Arts Concentrations)

B.A. students, in consultation with the designated Department and/or Program advisors, must formally declare the two (2) subject areas in the Faculty of Arts in which they wish to complete the Double Arts Concentration Requirement **not later than the completion of thirty (30) credit hours**. For full-time students, this normally means **by the end of their first year**.

Students can do their B.A. *Concentrations* in the following fields of study:

- Anthropology
- Asian Studies
- Atlantic Canada Studies
- Classics
- Criminology
- Economics
- English
- French
- Geography
- German Studies

- History
- International Development Studies
- Irish Studies
- Linguistics
- Mathematics
- Philosophy
- Political Science
- Psychology
- Religious Studies
- Sociology
- Spanish

The regulations governing this program will be those in effect at the time of declaration.

Minors

Students completing a *Bachelor of Arts - Major* or a *Bachelor of Arts – Honours* have the option of declaring one or more Minors as part of their degree program. The following Minors are available for such students:

Minors in Arts	Minors in Business	Minors in Science
<ul style="list-style-type: none"> ▪ Anthropology ▪ Asian Studies ▪ Atlantic Canada Studies ▪ Classics ▪ Criminology ▪ Culture, Race and Resistance ▪ Dramatic Literature ▪ Economics ▪ English ▪ English Language ▪ Film Studies ▪ French ▪ Geography ▪ German Studies ▪ History ▪ Indigenous Studies ▪ International Development Studies ▪ Irish Studies ▪ Linguistics ▪ Latin American Studies ▪ Mathematics ▪ Peace & Conflict Studies ▪ Philosophy ▪ Political Science ▪ Psychology ▪ Religious Studies ▪ Social Justice & Community Studies 	<ul style="list-style-type: none"> ▪ Business 	<ul style="list-style-type: none"> ▪ Astronomy ▪ Biology ▪ Chemistry ▪ Computing Science ▪ Geology ▪ Physics

<ul style="list-style-type: none"> ▪ Sociology ▪ Spanish 		
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To satisfy the requirements for a Minor in Arts, students must complete at least twenty-four (24) credit hours in the field of study. At least twelve (12) of these credit hours must be at the 2000 level or above. Specific Departmental requirements may apply to particular Minors; see discipline statements in Section 4 of the *Calendar*.

Minors in Business and Science require a minimum of 30 credit hours. Requirements for the Minor in Business can be found in the next section on programs in the Sobey School of Business. For requirements for minors in Science, see the discipline statements in Section 4 of this *Calendar*.

6. Non-Arts Credits

Students may count towards a Bachelor of Arts – Major or Honours thirty (30) credit hours outside of the recognized Arts subjects. Recognized Arts subjects are those in which a student may pursue a BA - major. With a Bachelor of Arts - General degree, the equivalent of up to eighteen (18) credit hours from outside the range of recognized Arts subjects may be counted. The following courses are acceptable as Arts credits: MGMT 2383, MGMT 2384, MGSC 1205, MGSC 1206, MGSC 2207, CISY 1225 and all courses in Education (EDUC prefix).

7. Certificates

Certificates in Arts

The Faculty of Arts offers a number of Certificate programs. Students can take these programs either as an add-on to their B.A. degree program, or separate from a degree program.

- Certificate in Atlantic Canada Studies
- Certificate of Chinese Studies
- Certificate in German Language and Culture
- Certificate in Health, Language and Sport in Society
- Certificate of Honours Equivalency
- Certificate of Japanese Studies
- Certificate in Linguistics
- Certificate in Spanish Language and Hispanic Culture

Certificate in Human Resource Management

It is also possible for students in the Faculty of Arts to complete the Certificate in Human Resource Management either on a stand-alone basis through the Department of Psychology, or in combination with a Major in Psychology:

Certificate of Honours Equivalency

Students who have graduated from Saint Mary's University with a Bachelor of Arts – Major or Double Concentration may earn a Certificate of Honours Equivalency by returning to the University and completing all of the requirements specified for Honours in the subject.

Students who have earned a first undergraduate degree from another post-secondary institution may be admitted to the

Certificate if they have achieved a cumulative grade point average of 3.00 or above. Admission requires the approval of the appropriate department chairperson and the Dean. Advanced standing will be granted in accordance with Academic Regulation 20. Students must complete at least 30 additional credit hours at Saint Mary's and satisfy all course and grade requirements for the honours program.

8. Cooperative Education Programs

Bachelor of Arts Cooperative Education Program

The Faculty of Arts offers a cooperative (COOP) education option for the Bachelor of Arts 120 credit hour degree. The COOP degree option is a dynamic approach to university education which integrates academic classroom studies with related practical work experiences outside the formal university environment. The principle upon which this concept is based is that learning and individual development are greatly enhanced when the concepts studied in the classroom are periodically applied, tested and observed by the students in meaningful work situations. Furthermore through this program, students have an excellent opportunity to observe and learn how to function in professional work environments.

1. Admission Requirements for Undergraduate Cooperative Education Programs

- a. Enrolment in the cooperative education option is limited and admission is on a competitive basis. The requirements listed below are the normal minimums. Satisfying these requirements does not guarantee admission.
- b. Students are considered for admission to the cooperative education option after the completion of forty-five (45) credit hours (normally, this will occur at the end of the first semester of the second year) and declaration of a Major (or admission to an Honors).
- c. The normal admission requirement to the cooperative education program is a minimum cumulative grade point average of 2.70.
- d. Candidates will be admitted to a cooperative education program on the basis of their interest, aptitude, and assessed ability to combine successfully the academic requirements of a major program together with the special work-term requirements of the program.

2. Requirements for Continuance in and Graduation from the Cooperative Education Program

- a. Students must complete all of the regular requirements for a Bachelor of Arts 120 credit hour degree. Students are advised that pursuing a cooperative education option may delay degree completion. It is the student's responsibility to schedule their courses to satisfy major/honors requirements.
- b. In addition to the above requirements, students must officially register for and complete three work terms.
- c. To continue in and graduate from the cooperative education program, students must earn a minimum degree grade point average of 2.70.

3. Policies and Regulations Governing Cooperative Education Work Terms

- a. The University will make every effort to locate work term positions for cooperative education students in

academically related areas of employment, but cannot guarantee placements. Employment settings may also be identified by cooperative education students, but require the approval of the Arts Faculty.

- b. The satisfactory fulfillment of cooperative education work terms require:
 - (i) the completion of three terms of work experience in academically related paid employment situations of 13 to 16 weeks duration. Under certain circumstances, and with the approval of the appropriate department, students may be permitted to satisfy their work terms requirements in an unpaid position. Self-employment will be considered.
 - (ii) a satisfactory employer evaluation for each cooperative education work term (self-employed students will be evaluated by an individual selected by the department);
 - (iii) the satisfactory completion of a written report in the required format, submitted within 30 days after the end of each work term detailing the student's work experience.
- c. A notation will be included on students' academic transcripts following satisfactory completion of each work term.
- d. Graduating students who have successfully completed their cooperative work term requirements will have this noted on their academic transcripts. If, in addition, all other normal academic requirements are fulfilled, a "Cooperative Education" notation will be printed on their parchments.
- e. Students may be required to withdraw from the cooperative education option of their degree if:
 - (i) they are dismissed from, quit, or fail to accept an appropriate and approved cooperative work term position;
 - (ii) they fail to submit or successfully complete a work term report;
 - (iii) they do not maintain the required grade point average necessary for continuance in the Cooperative Education Program;
 - (iv) in the judgment of the faculty, they are no longer suited for the particular requirements of the Cooperative Education Program.
- f. Students who voluntarily withdraw from or who are required to withdraw from the Cooperative Education Program may remain enrolled in and continue with the major or honours degree program offered by their department.
- g. Cooperative Education students will be expected to attend any special seminars or colloquia developed by the Arts Faculty or the Cooperative Education Department, which deal with employment orientation and the application of formal academic study to work experiences.
- h. Academic study during work terms is discouraged. No more than six (6) credit hours may be taken during a work term. Up to six (6) credit hours within the student's major subject may be taken on a Letter of Permission at another institution. This waiver of normal University policy is permitted only for study during work terms and only if the courses cannot be taken at Saint Mary's University due to program sequencing.

4. Registration and Fees for Cooperative Education

- a. Students are required to register for all work terms, according to normal registration procedures, including all stipulated deadlines. Work terms will be officially designated on students' transcripts as:
 - Work Term 1 = COOP 1000
 - Work Term 2 = COOP 2000
 - Work Term 3 = COOP 3000
- b. Students pay for their academic courses and work terms as they take them.

5. Timing and Sequencing of Work Terms

The basic principles behind a co-op education are that (a) work terms should build upon the studies in the preceding semester(s) and (b) work terms should enrich subsequent study terms. Ideally, work terms and study terms should alternate after the student has an academic foundation suitable for the first work term.

- a. Normally, the first work term will commence after the completion of the requirements for years 1 and 2 of the BA degree program.
- b. A "study term" is a semester of full -time study [minimum of 3 courses (nine (9) credit hours)]. Normally students must end their program with a study term.
- c. Normally, at least one work term must be in the fall or winter semester. That is, students are not permitted to complete all work terms in the summer.
- d. Back to back work terms are permissible only with prior approval of the Arts Faculty and the Cooperative Education department. These work terms must be with different employers or require significantly different job descriptions if with the same employer. Students must make application to the Cooperative Education department not less than one month before the start of the second work term, providing justification for back to back work terms and a job description for the second work term.
- e. Three work terms in succession, with no intervening full-time study term, are not permitted.
- f. Students may "stop out" for a semester, i.e., have a semester that is neither a work term nor a study term. Students must make application to the Cooperative Education department at least one month before the start of the "stop out" semester.

9. Dual Bachelor Degree Programs

Since it is possible to pursue two bachelor degrees from Saint Mary's University, students may desire to arrange their courses so as to obtain a bachelor degree in any two of the following three Faculties - Arts, Science, or Business.

While the total time required is somewhat longer, such dual degree programs are quite feasible. In essence, students have to fulfill the degree requirements of each faculty with respect to required courses. Courses which are common to both degree programs and electives can be counted toward both degree programs.

Students who contemplate pursuing any dual degree program should consult with the Deans of both Faculties before embarking on their program of study.

If a student opts to graduate after completing only one of the degree programs, and subsequently wishes to complete the second program, the requirements are those for a second undergraduate degree as stated in Academic Regulation 25.

10. Second Undergraduate Degrees

Students wishing to complete a second undergraduate degree at Saint Mary's should consult Academic Regulation 25, Section 2 of this *Academic Calendar*.

11. Internationalization and the Bachelor of Arts Degree

The B.A. programs at Saint Mary's University offer a wide variety of learning opportunities to help students become citizens of the world. Through the Faculty of Arts, students can gain cross-cultural experience and develop an international perspective. Such preparation is valuable for entry into various careers and for effective engagement in the contemporary world.

The Faculty provides international learning opportunities in a number of ways:

a. Academic Programs with International Scope

- Interdisciplinary "Area Studies" – Asian Studies, Atlantic Canada Studies, German Studies, Hispanic Studies, Irish Studies
- Studies on Aspects of World Cultures – Anthropology, Classics, English, French, History, Linguistics, Philosophy, Religious Studies
- Analysis of World Issues – Criminology, Economics, Geography, International Development Studies, Political Science, Religious Studies, Sociology

b. International Languages

In a world of increasing international mobility, there is particular advantage in acquiring competency in one or more international languages. Furthermore, in Canada, a nation that is officially bilingual, there is significant advantage in acquiring a working knowledge of the French language.

It is possible to study the following languages in the Faculty of Arts:

- Arabic
- Chinese
- English
- French
- German
- Irish
- Japanese
- Scottish Gaelic
- Spanish

c. International Field Schools and Study Abroad

The Faculty provides a variety of courses that involve field study in other parts of the world. Such courses may be offered in the following programs:

- Anthropology
- Asian Studies

- Classics
- English
- German
- Geography
- International Development Studies

There are also opportunities to study abroad in such countries as France, Germany, Japan, China, Mexico. Further information can be found at www.smu.ca/international/studying-or-working-abroad.html

12. Northern Studies Connection Linkage with University of the Arctic

Students in the Faculty of Arts have access to a range of courses relating to Northern Studies through various Departments and Programs, including:

- Anthropology
- Atlantic Canada Studies
- English
- Geography
- History

For specific courses involving Northern Studies content, please refer to the relevant sections in the Academic Calendar. For information on Northern Studies at Saint Mary's University, contact the Dean of Arts at smarts@smu.ca.

Further opportunities for study are available through Saint Mary's University's membership in the University of the Arctic consortium. Through this membership, Arts students can receive transfer credit for online courses completed through the University of the Arctic. Also, any University of the Arctic courses hosted on campus at Saint Mary's University can be taken for credit by Arts students at Saint Mary's.

Certain courses required by University of the Arctic students who are pursuing the Bachelor of Circumpolar Studies degree (B.C.S.) are offered through the Faculty of Arts at Saint Mary's University. The offerings change year to year; please refer to the University of the Arctic website for details, or contact the Dean of Arts at Saint Mary's at smarts@smu.ca.

13. Graduate Studies

Details on graduate programs can be found in the *Graduate Academic Calendar*. The following Master of Arts programs are offered at Saint Mary's University:

Master of Arts in Atlantic Canada Studies
Master of Arts in Criminology
Master of Arts in Geography
Master of Arts in History
Master of Arts in International Development Studies
Master of Arts in Philosophy
Master of Arts in Theology and Religious Studies
Master of Arts in Women and Gender Studies
Ph.D. in International Development Studies

Sobey School of Business

Dr. Harjeet Bhabra, Dean
 Dr. Mark Raymond, Associate Dean Academic
 Mahbouba Kafrouny, BComm Program Advisor

General Information

Frank H. Sobey, a Canadian entrepreneur whose dedication, creativity and hard work built an extensive retail empire, including Canada's second largest food retailer, is the inspiration of the Sobey School of Business. The leading business school in Atlantic Canada, the Sobey School offers a full range of graduate and undergraduate programs:

Bachelor of Commerce
 Bachelor of Commerce (Honours) in Economics
 Certificate in Human Resource Management
 Certificate in Financial Instrument Analysis
 Master of Applied Economics
 Master of Business Administration
 Master of Business Administration / Chartered Professional Accountant
 Master of Finance
 Master of Technology Entrepreneurship and Innovation
 Master of Management – Cooperatives and Credit Unions
 Graduate Diploma in Cooperative Management
 Executive Master of Business Administration
 Doctor of Philosophy in Business Administration (Management)

The four-year Bachelor of Commerce program provides a strong foundation of general knowledge and skills, followed by an opportunity to specialize. After the two-year foundation program, eligible students may choose a major area of study in Accounting, Computing and Information Systems, Economics, Finance, General Business Studies, Global Business Management, Human Resource Management and Industrial Relations, Management, Marketing, or Entrepreneurship. A cooperative education option, placements at the Sobey Business Development Centre and study-abroad opportunities are available to qualified students.

Certificate programs in Financial Instrument Analysis and Human Resource Management can be completed independently or concurrently with a Bachelor of Commerce. For information on these programs see Section 4 of the Calendar: Human Resource Management.

For information on graduate business programs, consult the *Graduate Academic Calendar*.

Bachelor of Commerce

The following requirements apply to all entering Commerce students.

1. a. The Bachelor of Commerce program consists of one hundred and twenty (120) credit hours beyond Nova Scotia Grade 12 (or equivalent). Students lacking the

equivalent of Nova Scotia Grade 12 may be required to complete additional courses as specified by the Dean. Courses beginning with zero (0) are designated preparatory and will not be credited toward any degree, diploma or certificate.

b. Nova Scotia Grade 12 Academic Mathematics (or equivalent) is a prerequisite for two first-year MGSC courses [MGSC 1205 and MGSC 1206]. Students who do not have Nova Scotia Grade 12 Academic Mathematics on admission, will be required to upgrade their mathematical knowledge before taking MGSC 1205 and 1206.

c. To receive a Saint Mary's University Bachelor of Commerce, transfer students must complete all requirements for the degree as stipulated in this *Academic Calendar*. Students must successfully complete a minimum of 50% of the credit hours required for their degree or certificate program at Saint Mary's. Among these credit hours, students must complete a minimum of 50% of the credit hours required for the major, honours or concentration at Saint Mary's.

2. a. In conformity with Academic Regulation 7c (i), students must achieve a minimum degree grade point average of 2.00 in order to qualify for graduation.

b. Cooperative education students must attain a minimum degree grade point average of 2.70. Honours students must attain a minimum degree grade point average of 3.00.

c. To be eligible to declare a major, students must have completed a minimum of 45 credit hours and must have a minimum cumulative grade point average of 2.0.

d. Completion of a major – i.e., to have a major formally recognized on a student's academic record – requires that students complete the designated courses with a grade point average of 2.2. (The courses required for each major are listed in Regulation 5 below.)

3. During the regular Academic Year (September to May), full time students will normally take the equivalent of thirty (30) credit hours (i.e. five courses in each academic term). Students who have completed at least thirty (30) credit hours at Saint Mary's may elect to take an additional three (3) credit hours (i.e., one course) each term. Permission is not required. (See academic regulation 1.)

4. All students must successfully complete the following required courses, arranged by year as a guide to students in preparing their programs of study. Students required to complete additional courses due to background deficiencies should consult the BComm Program Manager. Course descriptions, listed alphabetically by discipline, can be found in Section 4, Description of Courses.

Note:

A non-Commerce elective is a course offered by the Faculties of Arts, Education or Science.
A free elective is a course offered by Arts, Science or Business.

Year 1

CISY 1225 Introduction to Computer Applications
ECON 1201 Principles of Economics: Micro
ECON 1202 Principles of Economics: Macro
ENGL 1205 Introduction to Literature
MGMT 1281 Introduction to Business Management
MGSC 1205 Quantitative Methods I
MGSC 1206 Quantitative Methods II
Nine (9) non-Commerce elective credit hours
See Notes below

Year 2

ACCT 2241 Introductory Financial Accounting
ACCT 2242 Introductory Managerial Accounting
CMLW 2201 Legal Aspects of Business - Part I
COMM 2293 Communications
MGSC 2207 Introductory Statistics
MGMT 2383 Micro Organizational Behaviour
MGMT 2384 Macro Organizational Behaviour
MKTG 2270 Introduction to Marketing
Three (3) credit hours in Economics electives (except ECON 4475) - see Note below
Three (3) credit hours in non-Commerce electives – see Note below.

Notes:

- i. Interested students can take ACCT 2241, MKTG 2270, CMLW 2201 in Year I and defer non-Commerce electives until Year 2.
- ii. It is recommended that students complete MGSC 1205 before taking ACCT 2242.
- iii. It is recommended that student planning to major in Accounting and considering pursuing a professional accounting designation and/or Cooperative Education take ACCT 3350 and FINA 2360 in Year 2 and defer 3 credit hours in ECON electives and 3 credit hours in non-commerce electives until Year 3.
- iv. It is recommended that students planning to major in Economics take ECON 3300 and ECON 3301 in Year 2 and defer three (3) credit hours of Economics electives and three (3) credit hours in non-Commerce electives to Year 3.
- v. Students planning to major in Human Resource Management should take ECON 3340.
- vi. Students may elect to take FINA 2360 in Year 2 (once prerequisites are completed) and the Economics elective in Year 3 or 4.
- vii. Students may substitute one of BIOL 3308, ENGE 2309, GEOG 3326, MATH 1216, PSYC 2350 or CRIM/SOCI 3102 in lieu of MGSC 2207

Year 3 and Year 4

FINA 2360 Business Finance I (may be taken in Year 2, once prerequisites completed)
FINA 3361 Business Finance II
MGMT 3480 Ethical Responsibilities of Organizations
MGMT 4489 Strategic Management
At least twelve (12) credit hours in non-Commerce electives

Courses required by the major or non-major route to the degree – see Regulation 5 below.

Note:

The BComm degree requires students to successfully complete at least twenty-four (24) credit hours of non-Commerce electives. (Some majors require students to complete more than the minimum). Non-Commerce courses taken in lieu of Commerce courses cannot be counted as non-Commerce electives.

5. Students are not required to complete a major. However, upon completion of a minimum of 45 credit hours, students with a minimum cumulative grade point average of 2.0 may elect to choose a major. (In exceptional circumstances, students can also be admitted to a major by permission of the appropriate Departmental Chairperson or Program Director.)

Eligible students can undertake majors in

Accounting
Computing and Information Systems
Economics
Entrepreneurship
Finance
General Business Studies
Global Business Management
Human Resource Management and Industrial Relations
Management
Marketing

To complete a major, students must attain a grade point average of 2.2 in the designated required courses.

It is possible for students to double major by fulfilling the requirements of two majors (with the exception of General Business Studies). However, undertaking a double major may require students to complete more than the standard 120 credit hours required for the degree.

To assist students, the Year 3 and Year 4 course requirements for each major, and the core BComm degree program requirements, are listed below. Course descriptions, listed alphabetically by discipline, can be found in Section 4, Description of Courses.

a. BComm (without major)**Year 3**

FINA 2360 Business Finance I
FINA 3361 Business Finance II
MGMT 3480 Ethical Responsibilities of Organizations
9 credit hours Commerce electives at 3000 level or above
6 credit hours non-Commerce electives
6 credit hours free electives

Year 4

MGMT 4489 Strategic Management
9 credit hours Commerce electives at 3000 level or above
6 credit hours non-Commerce electives
12 credit hours free electives

Note:

Students who do not declare a major must complete a minimum of nine (9) credit hours of commerce electives at the 3000-level or above at Saint Mary's University.

b. Accounting Major

In addition to all other requirements for the major, a minimum GPA of 2.2 out of 4.3 is required in the 3rd and 4th year ACCT courses (as indicated below by *).

Year 3

- *ACCT 3323 Management Information Systems
 - *ACCT 3335 Intermediate Managerial Accounting
 - *ACCT 3350 Financial Accounting Foundations-see Note below
 - *ACCT 3351 Intermediate Financial Accounting I
 - FINA 2360 Business Finance I
 - FINA 3361 Business Finance II
 - MGMT 3480 Ethical Responsibilities of Organizations
- Nine (9) credit hours in non-Commerce electives – see Note below.

Year 4

- *ACCT 3352 Intermediate Financial Accounting II – see Notes below
 - *ACCT 4470 Accounting Seminar
 - *Nine (9) credit hours in Accounting electives - see Notes below
 - MGMT 4489 Strategic Management
- Three (3) credit hours in non-Commerce electives
Nine (9) credit hours in free electives – see Notes (iii) and (iv) below

Notes:

- (i) It is recommended that students who are considering pursuing a professional accounting designation and/or Cooperative Education take ACCT 3350 and FINA 2360 in Year 2 and take ACCT 3351 and 3352 in Year 3. In Year 2, student would defer 3 credit hours in ECON electives and 3 credit hours in non-commerce electives until Year 3.
- (ii) CISO 2320, CISO 3326, CISO 4435, ACCT 3345, ACCT 3357 or any 4000 level course in Accounting not used to fulfill other requirements may be used to satisfy this requirement.
- (iii) Students cannot receive credit for any of ACCT 3332, 3333, 3334, 3341, 3342, and 3343 towards accounting electives or free electives if they major in Accounting.
- (iv) Students are advised to consult with the Departmental advisor when choosing electives if they plan to pursue a professional accounting designation.

c. Computing and Information Systems Major

In addition to all other requirements for the major, a minimum GPA of 2.2 out of 4.3 is required in all courses specifically required to complete the Computing and Information Systems major at the 2000 level or above (as indicated below by *).

Students who are planning to major in Computing and Information Systems are advised to take CISO 2320 during year two.

Year 3

- *ACCT 3323 Management Information Systems
 - *CISO 3326 Database Programming
 - FINA 2360 Business Finance I
 - FINA 3361 Business Finance II
 - MGMT 3480 Ethical Responsibilities of Organizations
- Three (3) credit hours in Computing and Information Systems electives
Three (3) credit hours in Commerce electives at 3000-level and above
Six (6) credit hours in non-Commerce electives
Three (3) credit hours in free electives

Year 4

- *CISO 4425 System Analysis and Design
 - *CISO 4435 Information Systems Projects and Practice
 - *CISO 4436 Communications Networks and Security
 - MGMT 4489 Strategic Management
- Six (6) credit hours in non-Commerce electives
Twelve (12) credit hours in free electives

d. Economics Major

In addition to all other requirements for the major, a minimum GPA of 2.2 out of 4.3 is required in ECON 1201, ECON 1202, Economics electives from second year, and the 3rd and 4th year ECON courses (as indicated below by *).

Year 3

- *ECON 3300 Intermediate Microeconomic Theory - see note below
 - *ECON 3301 Intermediate Macroeconomic Theory - see note below
 - *ECON 4400 Advanced Microeconomic Theory or
 - *ECON 4401 Advanced Macroeconomic Theory
 - FINA 2360 Business Finance I
 - FINA 3361 Business Finance II
- *Three (3) credit hours in Economics electives at the 3000 level or above
Six (6) credit hours in humanities or language electives [Classics, History, Philosophy (except PHIL 1200), Religious Studies, English, or Modern Languages]
MGMT 3480 Ethical Responsibilities of Organizations
Three (3) credit hours in free electives

Year 4

- MGMT 4489 Strategic Management
- *Three (3) credit hours Economics electives at 3000 level or above
*Three (3) credit hours in Economics electives at 4000 level (except ECON 4475)
Six (6) credit hours in social sciences (excluding Economics) [Anthropology, Geography, Political Science, Sociology, or Psychology]
Fifteen (15) credit hours in free electives

Note: It is recommended that students planning to major in Economics take ECON 3300 or 3301 in Year 2 and defer three (3) credit hours of Non-Commerce electives to Year 3.

e. Entrepreneurship Major

In addition to all other requirements for the major, a minimum GPA of 2.2 out of 4.3 is required in ACCT 3332, MGMT 2383, MGMT 2384, MGMT 3380, MGMT 3389, MGMT 4487, MGMT 4494, and MGMT 4495 (as indicated below by *).

Year 3

*ACCT 3332 Planning and Control – see Note
 FINA 2360 Business Finance I
 FINA 3361 Business Finance II
 *MGMT 3380 Family Business
 *MGMT 3389 Structuring the Start-Up
 MGMT 3480 Ethical Responsibilities of Organizations
 Six (6) credit hours in non-Commerce electives
 Six (6) credit hours in free electives

Year 4

*MGMT 4487 New Venture Opportunities
 MGMT 4489 Strategic Management
 *MGMT 4494 Entrepreneurship: Theory and Concepts
 *MGMT 4495 Small Business Performance Improvement
 Six (6) credit hours in non-Commerce electives
 Twelve (12) credit hours in free electives

Note: Students cannot receive credit for both ACCT 3332 and ACCT 3333 or ACCT 3335.

f. Finance Major

In addition to all other requirements for the major, a minimum GPA of 2.2 out of 4.3 is required in FINA 4463, FINA 4466, FINA 4467 and the six (6) credit hours used to satisfy the 4000 level Finance electives requirement (as indicated below by *).

Year 3

ACCT 3343 Financial Accounting Analysis
 FINA 2360 Business Finance I
 FINA 3361 Business Finance II
 MGMT 3480 Ethical Responsibilities of Organizations
 Three (3) credit hours in Commerce electives at 3000 level or above.
 Six (6) credit hours in non-Commerce electives.
 Nine (9) credit hours in free electives.

Year 4

*FINA 4463 Financial Management
 *FINA 4466 Investments
 *FINA 4467 Portfolio Management
 MGMT 4489 Strategic Management
 *Six (6) credit hours in Finance electives at 4000 level except FINA 4491 [ACCT 4445 and ECON 4403 may be used to satisfy this requirement].
 Six (6) credit hours in non-commerce electives.
 Six (6) credit hours in free electives.

g. General Business Studies Major

The General Business Studies Major is designed to enable students to customize a major. Students may not double major by combining another major in Commerce with a Major in General Business Studies.

In addition to all other requirements for the major, a minimum GPA of 2.2 out of 4.3 is required in the eighteen (18) credit hours in Commerce electives completed in fulfillment of the major. (Courses included in the GPA calculations are indicated by *).

Year 3

FINA 2360 Business Finance I
 FINA 3361 Business Finance II
 MGMT 3480 Ethical Responsibilities of Organizations
 *Nine (9) credit hours in Commerce electives at 3000 level or above
 Six (6) credit hours in non-Commerce electives
 Six (6) credit hours in free electives

Year 4

MGMT 4489 Strategic Management
 *Nine (9) credit hours in Commerce electives at 3000 level or above
 Six (6) credit hours in non-Commerce electives
 Twelve (12) credit hours in free electives

h. Global Business Management Major

In addition to all other requirements for the major, a minimum GPA of 2.2 out of 4.3 is required in ACCT 3357, MKTG 3375, FINA 4476, MGMT 4488, and the Geographic and Cognate electives completed in fulfillment of the major (as indicated below by *).

Students are advised that they should take their language requirements as early as possible in their program so that later they will have increased flexibility in choosing their courses. Students are responsible to schedule their classes to meet prerequisite requirements for their advanced courses.

Year 3

ACCT 3332 Planning and Control - see Note (viii)
 *ACCT 3357 International Accounting
 FINA 2360 Business Finance I
 FINA 3361 Business Finance II
 MGMT 3480 Ethical Responsibilities of Organizations
 *MKTG 3375 International Marketing
 Language electives [six (6) credit hours] (same language as Year 4 elective)
 *Geographic electives [six (6) credit hours] (see Note (a) below).

Year 4

*FINA 4476 International Financial Management
 *MGMT 4488 International Business Management
 MGMT 4489 Strategic Management
 Language electives [six (6) credit hours] (same language as Year 3 elective).
 *Geographic electives [six (6) credit hours] (see Note (a) below).
 *Cognate electives [six (6) credit hours] (see Note (b) below).
 Free electives [three (3) credit hours]

- (i) Students cannot receive credit for both ACCT 3332 and ACCT 3333 or ACCT 3335.
- (ii) If ECON 3340 was used to satisfy the required Economics elective in Year 2, the number of free electives credits is increased by three (3) credit hours.

Notes:

- (a) Geographic electives must be selected from the following regions: Africa, Americas, Asia, or Europe. Approved courses for each region are listed in the entry "Global Business Management" in Section 4 of this Calendar.
- (b) Cognate electives must be selected from the approved list of cognate credits found in the "Global Business Management" entry in Section 4 of this Calendar, unless, on an individual basis, they have been approved by the Program Director.
- (c) If ECON 3310, ECON 3312, ECON 3315, ECON 3322, ECON 3324, ECON 3325, ECON 3327, ECON 3365, ECON 4406, ECON 4410, ECON 4412, ECON 4413, or ECON 4414 were used to satisfy the Economics elective in Year 2, the number of free electives is increased by three (3) credit hours.
- (d) In cases where a student is fluent in two languages, other courses relevant to the major may be substituted for the language credits with the approval of the Program Coordinator.
- (e) Notwithstanding the course substitutions possible in (a), (b), and (c) above, all students must complete at least twenty-four (24) credit hours of non-Commerce electives.
- (f) Students cannot receive credit for both ACCT 3332 and ACCT 3333 or ACCT 3335.

i. Human Resource Management and Industrial Relations Major

In addition to all other requirements for the major, a minimum GPA of 2.2 out of 4.3 is required in ACCT 3332, MGMT 2383, MGMT 2384, MGMT 3385, MGMT 3386, MGMT 4482, MGMT4483, MGMT 4485 and MGMT 4486 (as indicated below by *).

Year 3

*ACCT 3332 Planning and Control - see Note (i)
 ECON 3340 Human Resource Economics
 FINA 2360 Business Finance I
 FINA 3361 Business Finance II
 *MGMT 3385 Human Resource Management
 *MGMT 3386 Industrial Relations
 MGMT 3480 Ethical Responsibilities of Organizations
 Nine (9) credit hours in free electives - see Note (ii) below

Year 4

*MGMT 4482 Staffing and Selection
 *MGMT 4483 Management Skills I
 *MGMT 4485 Wage and Salary Administration
 *MGMT 4486 Training and Development
 MGMT 4489 Strategic Management
 Twelve (12) credit hours in non-Commerce electives
 Three (3) credit hours in free electives

Notes:**j. Management Major**

In addition to all other requirements for this major, a minimum GPA of 2.2 out of 4.3 is required in ACCT 3332, MGMT 2383, MGMT 2384, MGMT 3385, MGMT 3386, MGMT 4481, MGSC 3317, plus the courses satisfying the required ACCT, FINA, and MKTG electives (as indicated below by *).

Year 3

*ACCT 3332 Planning and Control – see Note
 FINA 2360 Business Finance I
 FINA 3361 Business Finance II
 MGMT 3480 Ethical Responsibilities of Organizations
 *MGSC 3317 Operations Management
 *Three (3) credit hours in Accounting electives
 *Six (6) credit hours in Marketing electives
 Three (3) credit hours in Commerce electives
 Three (3) credit hours in free electives

Year 4

*MGMT 3385 Human Resource Management
 *MGMT 3386 Industrial Relations
 *MGMT 4481 Organization Theory: Structure, Process, Analysis and Design
 MGMT 4489 Strategic Management
 *Three (3) credit hours in Finance electives
 Twelve (12) credit hours in non-Commerce electives
 Three (3) credit hours in free electives

Note: Students cannot receive credit for both ACCT 3332 and ACCT 3333 or ACCT 3335.

k. Marketing Major

In addition to all other requirements for the major, a minimum GPA of 2.2 out of 4.3 is required in MKTG 2270 and the 3rd and 4th year MKTG courses (as indicated below by *).

Year 3

FINA 2360 Business Finance I
 FINA 3361 Business Finance II
 MGMT 3480 Ethical Responsibilities of Organizations
 *MKTG 3376 Consumer Behaviour
 *MKTG 3378 Marketing Research
 *MKTG 3379 Marketing Management
 Nine (9) credit hours in non-Commerce electives
 Three (3) credit hours in free electives

Year 4

MGMT 4489 Strategic Management
 *MKTG 4479 Marketing Policy
 *Six (6) credit hours in Marketing electives
 Six (6) credit hours in non-Commerce electives
 Twelve (12) credit hours free electives

Bachelor of Commerce - Honours Economics

1. Admission Requirements

- a. Minimum grade point average of 3.00 at the end of Year 2.
- b. Students must make application for admission to the Honours program on the special form obtainable from the Registrar normally by the beginning of Year 3. They must obtain the approval of the Chairperson of the Economics Department and the Dean of Sobey School of Business.

2. Requirements for Continuance and Graduation

- a. To continue in the program and to graduate, students must maintain a minimum degree grade point average of 3.00.
- b. The specific course requirements of the program are:

Year 1

CISY 1225 Introduction to Computer Applications
 MGSC 1205 Introduction to Quantitative Methods I
 MGSC 1206 Introduction to Quantitative Methods II
 MGMT 1281 Introduction to Business Management
 ECON 1201 Principles of Economics: Micro
 ECON 1202 Principles of Economics: Macro
 ENGL 1205 Introduction to Literature
 Six (6) credit hours in humanities electives [Classics, History, Philosophy (except PHIL 1200), Religious Studies, English, or Modern Languages]
 Three (3) credit hours in non-Commerce electives

Year 2

*MGSC 2207 Introductory Statistics
 ACCT 2241 Introductory Financial Accounting
 ACCT 2242 Introductory Managerial Accounting
 MKTG 2270 Introduction to Marketing
 MGMT 2383 Micro Organizational Behaviour
 MGMT 2384 Macro Organizational Behaviour
 CMLW 2201 Legal Aspects of Business - Part I
 COMM 2293 Communications
 *ECON 3300 Intermediate Microeconomic Theory
 *ECON 3301 Intermediate Macroeconomic Theory

Year 3

FINA 2360 Business Finance I
 FINA 3361 Business Finance II
 *ECON 3302 Mathematical Economics
 *ECON 3303 Intermediate Economic Statistics
 *ECON 4400 Advanced Microeconomic Theory
 *ECON 4401 Advanced Macroeconomic Theory
 MGMT 3480 Ethical Responsibilities of Organizations
 * Three (3) credit hours in Economics electives
 Six (6) credit hours in social science electives (Anthropology, Geography, Political Science, Sociology, or Psychology but not Economics)

Year 4

- MGMT 4489 Strategic Management
 *ECON 4403 Econometrics
 *ECON 4404 Special Topics in Microeconomics
 or
 *ECON 4405 Special Topics in Macroeconomics
 *ECON 4498 Research Seminar in Economics
 *ECON 4499 Honours Project in Economics or another three (3) credit hours in Economics electives
 *Twelve (12) credit hours in non-Commerce electives
- c. For courses marked with an asterisk (*), no grade below a C is acceptable and at least thirty-nine (39) credit hours must have a grade of B or higher.
 - d. With the approval of the Chairperson of the Economics Department, a student may be permitted to substitute up to twelve (12) credit hours from a related subject for Year 3 and Year 4 required Economics courses.
 - e. With the approval of the Chairperson of the Economics Department, a student may substitute nine (9) credit hours from the Department of Mathematics and Computing Science for ECON 3302, 3303, and 4403.
 - f. Commerce students doing an honours in economics are permitted to count three (3) economics credit hours at the 3000-level or above as non-commerce electives.

Minors for Bachelor of Commerce Students

Students in the Sobey School of Business are permitted to declare a minor in a subject taught in the Faculty of Arts or Faculty of Science from those academic units which currently offer this program option. The specific requirements for minor programs are those set forth by the host academic unit. Although students may take a minor in another Faculty, they must fulfill the requirements of the degree in which they are registered, including officially declaring and fulfilling the requirements for a major or honours (or in the case of Science, a concentration).

Minor in Business for Arts and Science Students

A minor in Business is available for students pursuing a Bachelor of Arts or Bachelor of Science degree. Students pursuing a major in Entrepreneurship are not eligible for a Minor in Business. The minor consists of the equivalent of thirty (30) credit hours, namely:

ACCT 2241 Introductory Financial Accounting
 ACCT 2242 Introductory Managerial Accounting
 CISY 1225 Introduction to Computer Applications
 CMLW 2201 Legal Aspects of Business I
 COMM 2293 Communications
 MGMT 1281 Introduction to Business Management
 MGMT 2383 Micro Organizational Behaviour
 or MGMT 2384 Macro Organizational Behaviour
 MKTG 2270 Introduction to Marketing
 Six (6) credit hours in electives in Commerce subjects

Notes:

- (i) This minor is not available to students pursuing a Bachelor of Commerce degree. The regular “Declaration of Major/Minor/Concentration” form is to be used to declare a minor. Students must fulfill all requirements for any minor(s) which they officially declared in order to qualify for graduation, or officially (i.e., in writing) withdraw their declaration of a minor(s).
- (ii) A minimum cumulative grade point average of 2.00 is required for the minor in Business.
- (iii) It is the student’s responsibility to ensure the appropriate prerequisites have been taken.

Cooperative Education Programs

Sobey School of Business
Cooperative Education Advisor -Heather Sceles,
Accounting

The Sobey School of Business offers cooperative education options to the Bachelor of Commerce program. Cooperative education is a dynamic approach to university education which integrates academic classroom studies with related practical work experiences outside the formal university environment. The principle upon which this concept is based is that learning and individual development are greatly enhanced when the concepts studied in the classroom are periodically applied, tested and observed by the students in meaningful work situations. Through this program, participating businesses have an excellent opportunity to observe and influence the education of bright enthusiastic students. They also benefit from the access gained to university faculty and expertise, while university faculty and students become aware of the concerns of business and the varied problems which they face.

1. Admission Requirements for Undergraduate Cooperative Education Programs

- a.** Enrolment in the cooperative education option is limited and admission is on a competitive basis. The requirements listed below are the normal minimums. Satisfying these requirements does not guarantee admission.
- b.** Students are considered for admission to the cooperative education option in the Faculty of Commerce after the completion of forty-five (45) credit hours. Normally, the admission process will commence during the end of the first semester of the second year. The deadline to submit applications is listed on the Co-op website <http://www.smu.coa/academics/coop-education.html>.
- c.** The normal admission requirement to the cooperative education program in a regular Bachelor of Commerce program is a minimum cumulative grade point average of 2.50.
- d.** Candidates will be admitted to a cooperative education program on the basis of their interest, aptitude, and assessed ability to combine successfully the academic requirements of a major program together with the special

work-term requirements of the program. Further information of the full application process is provided on the Co-op page of the SMU website. (<http://www.smu.ca/academics/coop-education.html>).

2. Requirements for Continuance in and Graduation from the Cooperative Education Program

- a.** Students must complete all of the regular requirements for a Bachelor of Commerce (see regulations 1 through 7 in the Bachelor of Commerce section of the *Calendar*). Students are advised that for some majors, pursuing a cooperative education option may complicate course scheduling and therefore delay degree completion. It is the student’s responsibility to schedule their courses to satisfy major requirements.
- b.** In addition to the above requirements, students must officially register for and complete three work experiences.

- c.** To graduate from the cooperative education program, students must earn a minimum degree grade point average of 2.70. (A minimum grade point average of 2.50 must be maintained throughout the cooperative education program.)

3. Policies and Regulations Governing Cooperative Education Work Terms

- a.** The University will make every effort to locate work term positions for cooperative education students in academically related areas of employment, but cannot guarantee placements. Employment settings may also be identified by cooperative education students, but require the approval of the Sobey School of Business Cooperative Education Program Advisor.
- b.** The satisfactory fulfillment of cooperative education work terms require:
 - (i) the completion of three terms of work experience in academically related paid employment situations of 13 to 16 weeks duration. Under certain circumstances, and with the approval of the appropriate department, students may be permitted to satisfy their work terms requirements in an unpaid position. Self-employment will be considered.
 - (ii) a satisfactory employer evaluation for each cooperative education work term (self-employed students will be evaluated by an individual selected by the department);
 - (iii) the satisfactory completion of a written report in the required format, submitted within 30 days after the end of each work term detailing the student’s work experience.
- c.** A notation will be included on students’ academic transcripts following satisfactory completion of each work term.
- d.** Graduating students who have successfully completed their cooperative work term requirements will have this noted on their academic transcripts. If, in addition, all other normal academic requirements are fulfilled, a “Cooperative Education” notation will be printed on their parchments.

e. Students may be required to withdraw from the cooperative education option of their degree if:

- (i) they are dismissed from, quit, or fail to accept an appropriate and approved cooperative work term position;
- (ii) they fail to submit or successfully complete a work term report;
- (iii) they do not maintain the required grade point average necessary for continuance in the Cooperative Education Program;
- (iv) in the judgment of the faculty, they are no longer suited for the particular requirements of the Cooperative Education Program.

f. Students who voluntarily withdraw from or who are required to withdraw from the Cooperative Education Program may remain enrolled in and continue with the major or honours degree program offered by their department.

g. Cooperative Education students will be expected to attend any special seminars or colloquia developed by the Sobey School of Business, or the Cooperative Education Department, which deal with employment orientation and the application of formal academic study to work experiences.

h. Academic study during work terms is discouraged. No more than six (6) credit hours may be taken during a work term. Up to six (6) credit hours within the student's major subject may be taken on a Letter of Permission at another institution. This waiver of normal University policy is permitted only for study during work terms and only if the courses cannot be taken at Saint Mary's University due to program sequencing.

4. Registration and Fees for Cooperative Education

a. Students are required to register for all work terms, according to normal registration procedures, including all stipulated deadlines. Work terms will be officially designated on students' transcripts as:

Work Term 1	= COOP 1000
Work Term 2	= COOP 2000
Work Term 3	= COOP 3000

b. Students pay for their academic courses and work terms as they take them.

5. Timing and Sequencing of Work Terms

The basic principles behind a co-op education are that (a) work terms should build upon the studies in the preceding semester(s) and (b) work terms should enrich subsequent study terms. Ideally, work terms and study terms should alternate after the student has an academic foundation suitable for the first work term.

a. Normally, the first work term will commence after the completion of the requirements for years 1 and 2 of the Bachelor of Commerce degree program.

b. A "study term" is a semester of full-time study [minimum of 3 courses (nine (9) credit hours)]. Normally students must end their program with a study term.

c. Normally, at least one work term must be in the fall or winter semester. That is, students are not permitted to complete all work terms in the summer.

d. Back to back work terms are permissible only with prior approval of the Sobey School of Business Cooperative Education Advisor. These work terms must be with different employers or require significantly different job descriptions if with the same employer. Students must make application to the Sobey School of Business Cooperative Education Advisor not less than one month before the start of the second work term, providing justification for back to back work terms and a job description for the second work term.

e. Three work terms in succession, with no intervening full-time study term, are not permitted.

f. Students may "stop out" for a semester, i.e., have a semester that is neither a work term nor a study term. Students must make an application to the Sobey School of Business Cooperative Education Advisor at least one month before the start of the "stop out" semester.

Dual Bachelor Degree Programs

Since it is possible to pursue two bachelor degrees from Saint Mary's University, students may desire to arrange their courses so as to obtain a bachelor degree in any two of the following three Faculties - Arts, Science, or Business.

While the total time required is somewhat longer, such dual degree programs are quite feasible. Students must fulfill the degree requirements of each faculty with respect to required courses. Courses which are common to both degree programs and electives can be counted toward both degree programs.

Students who contemplate pursuing any dual degree program should consult with the Deans of both Faculties before embarking on their program of study.

If a student opts to graduate after completing only one of the degree programs, and subsequently wishes to complete the second program, the requirements are those for a second undergraduate degree as stated in academic regulation 25.

Second Undergraduate Degrees

Students wishing to complete a second undergraduate degree at Saint Mary's should consult Academic Regulation 25, Section 2 of this *Academic Calendar*.

Graduate Studies

Information concerning the Sobey School of Business' programs at the graduate level is found in the *Graduate Academic Calendar*. Graduate programs in Business include:

Master of Applied Economics
Master of Business Administration
Master of Business Administration – CPA Stream
Master of Finance
Master of Technology Entrepreneurship and Innovation
Master of Management - Cooperatives and Credit Unions
Graduate Diploma in Cooperative Management
Executive Master of Business Administration
Doctor of Philosophy in Business Administration
(Management)

Faculty of Education

Dr. Esther E. Enns, Associate Vice President Teaching & Learning
Brett Woodbury, Education Advisor

General Information

The study of Education has been part of the curriculum of Saint Mary's University for well over sixty years. General courses on education were offered as early as 1936. A number of broad shifts in the focus of studies in Education have occurred from those early years through to present times. Today Education at Saint Mary's University is interdisciplinary in orientation. Students enrolled in B.A., B.Comm., B.E.S, and B.Sc. degrees can select Education courses as part of their academic programs. The courses can be used as Humanities or Social Science electives, giving students many opportunities for critical examination of education as a major cultural institution throughout the world.

Students who are new to university, or who are new to the Canadian university experience, can benefit from a selection of unique 1000-level courses that provide an introduction to the nature, scope, and meaning of university education in the Canadian setting. Taken as electives, these courses support students in their transition to academic study in the university context.

Scope of Course Offerings in Education

The Faculty of Education has five strategic areas that structure its course offerings and Faculty curriculum, five of which are specific to its courses at the undergraduate level.

1. Liberal Study of Education

These studies focus on the liberal study of education from the perspective of many disciplines – anthropology, history, philosophy, interdisciplinary studies, linguistics, literature, political science, psychology, religious studies and sociology - to name a few. These disciplines enable students to explore how education operates in, influences and is influenced by people and cultures. These studies tend to be grounded in analytic, critical and interpretive approaches, where the curriculum engages students in interdisciplinary inquiry into wide ranging manifestations of Education in its broadest sense.

To the extent provided within each of the undergraduate degrees offered within the Faculty of Arts, the Sobey School of Business and the Faculty of Science, these undergraduate courses can be taken as electives to fulfill Humanities or Social Science requirements.

2. University Transitions

In recognition of the importance of international students to the life, success and future of Saint Mary's University, the university offers a series of innovative courses that support students in their integration into the intellectual culture and

values of the university with an emphasis on the development of critical reflection. This occurs in an English Language intensive environment.

3. Education and International Development

Educational systems are a critical component of the social, political and economic structures of societies worldwide. Through critical examination of national education policies in the developing world, students come to understand differing views regarding the role of education. Analysis of education for purposes of economic advancement, for development of national citizenship, or for social integration and cohesion of citizens are areas of focus.

These studies reflect the importance of the university's role in Education and International Development by providing students with a foundation in international comparative education, education and development, comparative educational reforms and comparative innovations in education.

4. Peace Education

The goal of peace education is to transform cultures of violence in society to cultures of peace. It promotes the development of values such as cultural understanding, active citizenship, and non-violence. Courses in peace education give students the opportunity to experience and critically examine educational approaches such as global education, multicultural education, or sustainable development education, that teachers can use for awakening learners to strategies for developing humanity and world community.

5. Professional Development for Teachers

Mindful of its history in teacher education, Saint Mary's University currently offers two Continuing Service Education certificates for teachers:

- Certificate in Linguistics
- Certificate in the Mathematical Sciences for Education

For more detailed information on each of these certificates, prospective students should visit Section 4 of this calendar for the information under Linguistics and Mathematics. Teachers should note that while these programs have been generally approved for teacher certification upgrading purposes by the Minister of Education and Early Childhood Development, they must seek approval of these programs from the Registrar of Teacher Certification at the Nova Scotia Department of Education and Early Childhood Development for specific teacher certification upgrades. Students interested in pursuing a career in teaching in the public schools should visit the teacher certification website at the Nova Scotia Department of Education and Early Childhood Development for information on current academic content requirements. Undergraduate professional teacher education programs leading to teacher certification are offered at the following Nova Scotia universities –

Acadia, Mount Saint Vincent, Cape Breton, St. Francis Xavier and Université Sainte Anne.

Students also have the opportunity of studying at the University of Maine at Presque Isle under the terms of an agreement between the universities that has been in place for almost two decades. Further information is available from the Education Advisor at Saint Mary's or by contacting the Admissions Office at the University of Maine at Presque Isle.

Graduate Studies

The Faculty of Education offers a graduate program in the teaching of English as a second/additional language: the International Master of Teaching English (IMTE). Details on graduate courses can be found in the *Graduate Academic Calendar*.

Faculty of Science

Dr. Steven Smith, Dean
 Dr. Lori Francis, Associate Dean - Student Affairs
 Dr. Kathy Singfield, Associate Dean – Curriculum & Operations
 Dr. David H. S. Richardson, Dean Emeritus
 Laura Johnston, Science Undergraduate Advisor
 Courtenay Kyle, Science Undergraduate Advisor

The Faculty of Science prepares students to be leaders in the global community through hands-on learning in safe and stimulating state-of-the-art learning environments with award-winning instructors, leading researchers, and innovative science communicators.

Students electing to pursue a program leading to the Bachelor of Science degree are encouraged to meet with an advisor to consider which of three types of programs (concentration, major, or honours) best suits their aspirations. B.Sc. Major and Honours students can add a minor in another subject, where available. B.Sc. Major and Honours students can apply a Certificate in Forensic Science to their degree.

Major

The major program aims to provide students with the opportunity to gain a depth and breadth of knowledge and skills in their major subject area, as well as a broad appreciation in selected complementary science disciplines. A minimum GPA of 2.2 is required in those courses used to satisfy the major subject area (Section 3, 6(d)). Graduates are well prepared to enter the workforce in related fields, and they are also adequately prepared for continued study in related professional programs or graduate.

Honours

The honours program provides students with an opportunity to further specialize in the knowledge and skills of their major subject area and to develop their sense of inquiry by undertaking a research project supervised by an expert faculty member. Most disciplines feature a senior seminar course for honours students that fosters discussion of contemporary issues and recent advances in the field. A minimum grade of C in all courses followed in the honours subject (Section 3, 11 (a)). (Particular requirements for the honours in Environmental Science are found in this *Academic Calendar*, Section 4, “Environmental Science”.) The honours program graduates are very well prepared for graduate level research or professional status pursuits in the area of the honours. Motivated and interested students with demonstrated above-average success in their major program are urged to contact the Chair of the Department in which they wish to follow an honours program before the end of Year 3 for application details. Formal application for admission to an honours program must be made on a form available in the Service Centre.

General

The general program is designed to provide an opportunity for students to gain a broad knowledge, skills, and

appreciation of science in a selected area of concentration and in selected complimentary disciplines. B.Sc. General students are encouraged to supplement their science studies with courses offered in the Faculty of Arts and the Sobey School of Business.

Bachelor of Science

The following are considered “science subjects” at Saint Mary’s University: Astronomy, Biology, Chemistry, Computing Science, Environmental Science, Geology, Mathematics, Physics and Psychology.

Note: Students in the Faculty of Science are NOT permitted to use the following courses as Science Electives” in fulfilling the Science breadth requirements of their academic program:

ASTR 1010	Life in the Universe
CHEM 1221	Chemicals
FRSC 2200	Basic Sciences for Forensics I
FRSC 2201	Basic Sciences for Forensics II
GEOL 1202	Planet Earth: Atlantic Canada Perspective
GEOL 1203	Earth History: Atlantic Canada Perspective
GEOL 1210	Dinosaurs and Their World
MATH 1202	Concepts and Topics in Mathematics
MATH 1203	Concepts in High School Mathematics
GEOG	any course

Bachelor of Science - General (with a Concentration)

1. A concentration program is available in the following disciplines: Biology, Chemistry, Computing Science, Geography, Geology, Mathematics, Physics or Psychology. Subject to the regulations set forth in this *Academic Calendar*, students must complete ninety (90) credit hours.

Note: Students should note that at least 50% of all courses for any academic program must be taken at Saint Mary’s University and at least 50% of all courses taken in the concentration subject must be taken at Saint Mary’s University.

2. Students will normally take thirty (30) credit hours during the regular academic year.

3. For the degree of Bachelor of Science, students must successfully complete:

a. three (3) credit hours in English [ENGL 1205] and (3) credit hours in Humanities: Classics, English other

than ENGL 1205, History, Philosophy, Religious Studies and Modern Languages (courses on literature and/or culture). Students planning to apply to professional schools, which require six (6) credit hours of writing components, are advised to take English 1205 (Introduction to Literature) and three (3) credit hour courses in English from among the ENGL 2300 to ENGL 2393 courses. These courses have been designated by the Department of English Language and Literature as having a major writing component

- b. six (6) credit hours in Mathematics and/or Computing Science at the 1210-level or above. Students who have completed MATH 1250 may not use MATH 1210 towards fulfilling this requirement.
- c. twelve (12) credit hours in Arts subjects and/or Economics; excluding Mathematics and Psychology. With respect to this regulation, all courses taught in Geography are considered Arts courses and all courses taught in Psychology [including PSYC 3348/WMST 3348] and Mathematics are considered Science courses and cannot fulfill this requirement. These twelve (12) credit hours are in addition to requirement (a) above;
- d. not less than thirty (30) or more than forty-two (42) science credit hours in their area of concentration;
- e. eighteen (18) credit hours in Science not in the subject of concentration and in addition to the required Mathematics or Computing Science courses (see note below); excluding Geography and Engineering. With respect to this regulation, all courses taught in Psychology and Mathematics are considered Science courses, and all courses taught in Geography are considered Arts courses and cannot fulfill this requirement; and
- f. sufficient electives to complete the ninety (90) credit hours required for a general Bachelor of Science; and achieve a minimum degree grade point average of 1.70 in order to qualify for graduation with a Bachelor of Science degree.

Bachelor of Science - Major

4. A major program is available in the following disciplines: Astrophysics, Biology, Chemistry, Computing Science, Environmental Science, Geography, Geology, Mathematics, Physics or Psychology. Subject to the regulations set forth in this *Academic Calendar*, students must complete one hundred and twenty (120) credit hours. Courses beginning with zero (0) are designed to prepare students for entry level course work and will not be credited towards any academic program.

Note: Students should note that at least 50% of all courses for any academic program must be taken at Saint Mary's University and at least 50% of all courses taken in the major subject must be taken at Saint Mary's University.

5. Students will normally take thirty (30) credit hours during the regular academic year.

6. To earn a degree of Bachelor of Science with a major, students must successfully complete:

- a. three (3) credit hours in English [ENGL1205] and three (3) credit hours in the humanities [see 3(a) above];
- b. six (6) credit hours in Mathematics and/or Computing Science at the 1210-level or above. Students who have completed MATH 1250 may not use MATH 1210 towards fulfilling this requirement;
- c. twelve (12) credit hours in Arts subjects and/or Economics; excluding Mathematics and Psychology. With respect to this regulation, all courses taught in Geography are considered Arts courses and all courses taught in Psychology [including PSYC 3348/WMST 3348] and Mathematics are considered Science courses and cannot fulfill this requirement. These twelve (12) credit hours are in addition to requirement (a) above; in addition to ENGL 1205;
- d. not less than forty-two (42) credit hours in the major subject area.
- e. eighteen (18) credit hours in Science — not in the subject of the major and in addition to the required Mathematics or Computing Science credit [six (6) credit hours]; excluding Geography and Engineering. With respect to this regulation, all courses taught in Psychology and Mathematics are considered Science courses and all courses taught in Geography are considered Arts courses and cannot fulfill this requirement;
- f. sufficient elective credits to complete the one hundred and twenty (120) credit hours are required for a Bachelor of Science with a major; and achieve a minimum degree grade point average of 1.70 in order to qualify for graduation with a Bachelor of Science degree;
- g. an additional three (3) credit hours in Mathematics or Computing Science is required for the major in chemistry; and
- h. students must obtain a grade point average (GPA) of at least 2.20 in all courses used to satisfy the Major {6 (d) above}.

Bachelor of Science - Double Major

7. With the approval of the Chairs of the academic units involved, students may pursue a double major program in any two science subjects (except Astrophysics). In addition to satisfying the requirements for the Bachelor of Science major (see above), students must complete the following:

Note: Students should note that at least 50% of all courses for any academic program must be taken at Saint Mary's University and at least 50% of all courses taken in the major subjects must be taken at Saint Mary's University.

a. at least thirty-six (36) credit hours in each major subject;

b. twelve (12) credit hours in Science not in the major subjects and in addition to the required Mathematics or Computing Science credit [six (6) credit hours]; excluding Geography and Engineering. With respect to this regulation, all courses taught in Psychology and Mathematics are considered Science courses and all courses taught in Geography are considered Arts courses and cannot fulfill this requirement;

c. sufficient electives to complete the one hundred and twenty (120) credit hours required for a Bachelor of Science with a double major [exclusion list under Major 6(e) applies]; and achieve a minimum degree grade point average of 1.70 in order to qualify for graduation with a Bachelor of Science;

d. Students must obtain a grade point average (GPA) of at least 2.20 in all courses used to satisfy [7 (a) above].

8. Students' programs must be approved by the department(s) in which the major is taken and must satisfy any core programs specified by the department(s) and approved by the Faculty of Science. These requirements may be waived in special cases by the Dean of Science who may approve a special program for the student in consultation with the department(s) concerned.

Bachelor of Science - Major and Minor

9. With the approval of the departments involved, students may pursue a major-minor program in any two science subjects. Science students may also pursue a minor in another faculty (see details later in this section of the *Academic Calendar*). In addition to satisfying requirements for the Bachelor of Science major (see above), students must complete the following course requirements:

Note: Students should note that at least 50% of all courses for any academic program must be taken at Saint Mary's University and at least 50% of all courses taken in the major and minor subjects must be taken at Saint Mary's University.

a. at least forty-two (42) credit hours in the major subject;

b. at least thirty (30) credit hours in the minor subject;

c. twelve (12) credit hours in Science not in the major or minor subjects, in addition to the required Mathematics or Computing Science credit [six (6) credit hours]; excluding Geography and Engineering. With respect to this regulation, all courses taught in Psychology and Mathematics are considered Science courses and all courses taught in Geography are considered Arts courses and cannot fulfill this requirement;

d. sufficient electives to complete the one hundred and twenty (120) credit hours required for a Bachelor of Science with a major-minor;

e. in addition, students must obtain a grade point average (GPA) of at least 2.20 for all courses used to satisfy the major [9 (a) above], and a grade point average (GPA) of at least 2.00 for all courses used to satisfy the minor [9(b) above].

Note: In conformity with academic regulation 7c (i) students must achieve a minimum degree grade point average of 1.70 in order to qualify for graduation with a Bachelor of Science degree - with a concentration, major, double major, or major-minor.

Bachelor of Science - Honours and Double Honours

10. An honours program is available in the following disciplines: Astrophysics, Biology, Chemistry, Computing Science, Environmental Science, Geography, Geology, Mathematics, Physics or Psychology; or as a combination of any two of these subjects (except Astrophysics). Students who plan to take an honours program must have the approval of the honours department(s) and the Dean of Science.

Note: Students should note that at least 50% of all courses for any academic program must be taken at Saint Mary's University and at least 50% of all courses taken in the honours and double honours subjects must be taken at Saint Mary's University.

11. For the Bachelor of Science degree with honours, students must complete the requirements for a major [6 (a – h) and the following:

a. sixty (60) to seventy-two (72) credit hours in the honours subject, or in double honours [see Science Regulation 11(d)]. The exceptions are: Astrophysics and Computing Science;

b. eighteen (18) credit hours in Science not in the honours subject [six (6) credit hours in double honours, eighteen (18) credit hours in Astrophysics and Computing Science] and in addition to the required Mathematics and Computing Science credit [six (6) credit hours]; excluding Geography and Engineering. With respect to this regulation, all courses taught in Psychology and Mathematics are considered Science courses and all courses taught in Geography are considered Arts courses and cannot fulfill this requirement; [exclusion list under Major 6(e) apply];

c. sufficient electives to complete the one hundred and twenty (120) credit hours are required for a Bachelor of Science with honours.

d. For a double honours program, students must complete:

- forty-eight (48) credit hours in the subject in which they are completing their thesis. (This includes the thesis and seminar course where relevant.)
- students must complete forty-two (42) credit hours in their second honours subject,
- six (6) credit hours in another science,
- twelve (12) credit hours in Arts, as well as the required three (3) credit hours for English [ENGL 1205] and three (3) credit hours in the humanities, and
- six (6) credit hours in Mathematics and/or Computing Science at the 1210-level or above, as stipulated in the regulations of the specific Department.

for a minimum of one hundred and twenty (120) credit hours. Entry into this double honours program requires approval by the Chairs of the two departments and the Dean of Science.

e. For an honours and major program, students must complete:

- forty-eight (48) credit hours in their honours subject.
- students must complete thirty-six (36) credit hours in their major subjects,
- six (6) credit hours in another science,
- twelve (12) credit hours in Arts, as well as the required three (3) credit hours for English [ENGL 1205] and three (3) credit hours in the humanities, and
- six (6) credit hours in Mathematics and/or Computing Science at the 1210-level or above, as stipulated in the regulations of the specific Department. Both MATH 1250 and CSCI 1226 may be used towards fulfilling this requirement.

for a minimum of one hundred and twenty (120) credit hours.

12. Students' academic programs must be approved by the department(s) involved.

13. For a Bachelor of Science degree with honours, students must obtain a degree grade point average of at least 3.00 in those courses used to satisfy the requirements of section 12, above. In cases where a course has been taken more than once for upgrading purposes, only the latest instance of the course will be used to evaluate graduation standing.

14. In a program requiring an Honours Thesis, students complete the thesis course appropriate for their program. In keeping with Academic Regulations 4b, a grading rubric for Honours Thesis courses will be provided. Thesis research will be conducted under the direction of the faculty supervisor, and the completed thesis will be evaluated by the supervisor and one (or more) other faculty member(s) associated with the program. At least one of the supervisor or evaluator(s) shall be a full-time faculty member at Saint Mary's University. The student is also required to give a public presentation of their thesis work in a forum approved by the program. Upon approval by the thesis evaluators, an electronic version of the completed thesis shall be submitted to the university library.

Bachelor of Science (Major in Computing Science and Business Administration)

For details on this program, please consult the "Computing Science and Business Administration" entry under Mathematics and Computing Science in Section 4 of this *Academic Calendar*.

Bachelor of Science (Major in Geography)

For details on this program please consult the "Geography" entry in Section 4 of this *Academic Calendar*.

Bachelor of Science (Geology/Commerce)

For details on this program, please consult the "Geology" entry in Section 4 of this *Academic Calendar*.

Combined Cooperative Education Program in Commerce/Geology

Students enrolled in the combined commerce/geology major/honours may also pursue a co-op option in this dual program. Applications to and completion of this combined option is the same as those for other Science co-op major/honours programs.

Bachelor of Science (Major/Honours in Geology/Geography)

For details on this program, please consult the "Geology" entry in Section 4 of this *Academic Calendar*.

Bachelor of Science (Major/Honours in Environmental Science)

For details on this program, please consult the "Environmental Science" entry in Section 4 of this *Academic Calendar*.

Dual Bachelor Degree Programs

Since it is possible to pursue two bachelor degrees from Saint Mary's University, students may desire to arrange their courses so as to obtain a bachelor degree in any two of the following three Faculties - Arts, Commerce, or Science.

While the total time required is somewhat longer, such dual degree programs are quite feasible. In essence, students have to fulfill the degree requirements of each Faculty with respect to required courses. Courses which are common to both degree programs and electives can be counted toward both degree programs.

Students who contemplate pursuing any dual degree program should consult with the Deans of both Faculties before embarking on their program of study.

If a student opts to graduate after completing only one of the degree programs, and subsequently wishes to complete the second program, the requirements are those for a second undergraduate degree as stated in academic regulation 25.

Non-Science Minor

Students in the Faculty of Science are permitted to declare a minor in a subject taught in the Faculty of Arts or Faculty of Commerce from those academic units which currently

offer this program option. The specific requirements for minor programs will be those set forth by the host academic unit and that while students may take a minor in another Faculty, they must fulfill the requirements of the degree in which they are registered, including officially declaring and fulfilling the requirements for a major or honours (or in the case of Science, a concentration).

Second Undergraduate Degrees

Students wishing to complete a second undergraduate degree at Saint Mary's should consult Academic Regulation 25, Section 2 of this *Academic Calendar*.

Cooperative Education Programs (Major and Honours)

The Faculty of Science offers Cooperative Education programs in Biology, Chemistry, Environmental Science, Geology, Computing Science and Psychology. Cooperative Education is a dynamic approach to university education which integrates academic classroom studies with related practical work experiences in the major subject. The principle upon which this concept is based is that learning and individual development are greatly enhanced when the concepts studied in the classroom are periodically applied, tested and observed by the students in meaningful work situations. Through this program, participating industries have an excellent opportunity to observe and influence the education of bright enthusiastic students. They also benefit from the access gained to university faculty and expertise, while university faculty and students become aware of the concerns of industry and the technical problems which they face.

A "Cooperative Education" notation is entered on the parchments and academic transcripts of undergraduate students who successfully complete Cooperative Education requirements in addition to their regular degree requirements.

Admission Requirements for Undergraduate Cooperative Education Programs

- a. Application for admission to the program is normally after the first semester of Year 2. Final decision on admission to the program is made at the end of the second semester.
- b. Students should make application for admission to the Cooperative Education program on a special form obtainable from the Cooperative Education Office. Students will be admitted to the Cooperative Education program on the basis of their formal academic achievement and interviews with the Liaison Officer of the Cooperative Education Programs, and the appropriate departmental Cooperative Education Advisor.
- c. The normal prerequisite for admission to the Cooperative Education program in a regular Bachelor of Science program is a minimum CGPA of 2.50 and a minimum GPA of 3.00 in the course(s) of the student's declared major subject(s).

- d. Students will be admitted to the Cooperative Education program on the basis of their interest, aptitude and assessed ability to combine successfully the academic requirements of a major or honours science program together with the special work term requirements of the Cooperative Education program they wish to enter.

Requirements for Continuance in and Graduation from the Cooperative Education Program

- a. Students must complete all of the regular requirements for a Bachelor of Science degree (see regulations 1 through 13 above). Since individual programs may have specific additional requirements for Cooperative Education students, students should consult the appropriate departmental section of this Calendar for a description of these regulations.
- b. In addition to the above requirements, students must officially register for and complete a minimum of three work terms as specified by the department of their major program (see regulations below and departmental Cooperative Education regulations). Official registration is on the regular registration forms available from the Service Centre.
- c. To continue in and graduate from the Cooperative Education program, students must earn a minimum DGPA of 2.50 with a minimum GPA of 3.00 in all courses in their major subject(s).

Policies and Regulations Governing Cooperative Education Work Terms

- a. The University will make every effort to locate work term positions for Cooperative Education students in academically related areas of employment, but cannot guarantee placements. Employment settings may also be identified by Cooperative Education students, but require the approval of the Liaison Officer, Cooperative Education Programs, in consultation with the appropriate departmental Cooperative Education Advisor.
- b. The satisfactory fulfillment of Cooperative Education work terms require:
 - (i) the completion of a minimum of three terms of work experience in academically related paid employment situations of 13 to 16 weeks. Under certain circumstances, and with the approval of the appropriate department, students may be permitted to satisfy their work terms requirements in an unpaid position.
 - (ii) a satisfactory employer evaluation for each Cooperative Education work term;
 - (iii) the satisfactory completion of a written report submitted within 30 days after the end of each work term detailing the student's work experience in accordance with departmental standards and expectations.
- c. A notation will be included on students' academic transcripts following satisfactory completion of each work term.
- d. Graduating students who have successfully completed their Cooperative work term requirements will

have this noted on their academic transcripts. If, in addition, all other normal academic requirements are fulfilled, a “Cooperative Education” notation will be printed on their parchments.

e. Students may be required to withdraw from the Cooperative Education program if:

- (i) they are dismissed from, quit or fail to accept an appropriate and approved Cooperative work term position;
- (ii) they fail to submit or successfully complete a work term report;
- (iii) they do not maintain the required grade point average necessary for continuance in the Cooperative Education program;
- (iv) in the judgment of their department, they are no longer suited for the particular requirements of the Cooperative Education program.

f. Students who voluntarily withdraw from or who are required to withdraw from the Cooperative Education program may remain enrolled in and continue with the major or honours degree program offered by their department.

g. Cooperative Education students will be expected to attend any special seminars or colloquia developed by the Cooperative Education Office which deals with employment orientation and the application of formal academic study to work experiences.

h. Since academic study during work terms is discouraged, registration in any courses during a work term requires the approval of the Dean of Science or appropriate departmental Cooperative Education Advisor. If approval is granted, no more than six (6) credit hours may be taken during a work term.

Fees for Cooperative Education

a. Students are required to register for all work terms at the Service Centre, according to normal registration procedures, including all stipulated deadlines. Work terms will be officially designated on students’ transcripts as:

Work Term 1	= COP 1000
Work Term 2	= COP 2000
Work Term 3	= COP 3000

b. Students pay for their academic courses and work terms as they take them.

program, but the academic content of both is the same. Students may, with the permission of the Department, transfer from the Cooperative Education program to the non-Cooperative Education program.

Graduate Studies

Information concerning the Faculty of Science’s programs at the graduate level is found in the *Graduate Academic Calendar*. Graduate programs in Science include:

- Master of Science in Applied Psychology
- Master of Science in Applied Science
- Master of Science in Astronomy
- Master of Science in Computing & Data Analytics
- Doctor of Philosophy in Astronomy
- Doctor of Philosophy in Applied Science
- Doctor of Philosophy in Industrial/Organizational Psychology

In general, the Cooperative Education program takes one year longer to complete than the corresponding traditional

School of the Environment

Acting Director Dr. Linda Campbell

The School of the Environment is a pan-faculty School being comprised of programs and courses from the Faculty of Arts, the Faculty of Science and the Sobey School of Business. The School of the Environment is the focal point for environmental education at Saint Mary's University, which brings together the university's four academic programs that are explicitly environmental in nature:

1. BSc programs within the Environmental Science Department
2. The Bachelor of Environmental Studies degree program
3. BA programs within the Geography Department
4. BSc programs within the Geography Department

The School of the Environment facilitates and ensures a strong level of interaction among all students registered in the School's environmental programs, by offering these programs in a unified, coordinated manner. Specific details regarding each of these four programs can be found in the appropriate section of the Academic Calendar, and will not be repeated here. In this way, all students graduating from the School's programs have experienced the best environmental education possible.

The School, through innovative teaching and learning opportunities, supports the University's mission statement involving sustainability, and contributes to University community outreach.

**Programs and
Course Descriptions**

Section

4

Accounting (ACCT)

Chairperson	L. Corrigan, J. Power
Professors	B. Anderson, N. Kochetova-Kozloski, N. Young
Associate Professors	D. Bateman, K. Lightstone, D. Rixon, P. Secord, X. Song
Assistant Professors	G. Ansong, H. Fan, C. Pietsch, J. Power,
Senior Lecturer	H. Sceles
Professor Emeriti	R. Chesley, F. Dougherty, B. Gorman

The Department of Accounting offers a program for accounting majors that will prepare students for careers in professional accounting, industry and government. The Department also offers courses in financial and managerial accounting and information systems for all Commerce students.

CPA Accreditation

The University offers all of the prerequisite courses for the Canadian Chartered Professional Accountant (CPA) designation. Commerce graduates with a major in accounting may choose certain accounting and free electives to complete all prerequisite requirements before graduation for entry into the CPA Professional Education Program. Details of these courses are available from the academic advisor, Chairperson of the Department or the CPA Atlantic website.

MBA (CPA Stream)

The MBA (CPA Stream) program allows students to complete an MBA while receiving advanced standing in the CPA Professional Education Program. Students who complete the MBA (CPA Stream) program will be eligible to write the CPA professional common final examination on completion. Details can be found in the *Graduate Academic Calendar*.

The Accounting Major

Upon completion of 45 credit hours, Commerce students with a cumulative grade point average of 2.0 may elect to declare a major in Accounting. (In exceptional circumstances, students may also be admitted to the major by permission of the Chairperson.)

Note: Students are advised that possession of the minimum qualifications does not guarantee admission to a particular academic program. Limits to the number of students who can be in a particular program at any one time exist and depend very much on the number of faculty members available in a particular academic unit.

Course Planning: Students with an interest in the Accounting major are encouraged to seek advising early from an Academic Advisor, Department advisor, or Chairperson of the Department. Interested students may choose to take ACCT 2241 in the second semester of their first year if prerequisites are met for their intended upper level electives.

To assist students, the Year 3 and Year 4 course requirements for an Accounting major and the core BComm degree program requirements are listed below. Course descriptions follow.

To complete a major in Accounting, students must attain a minimum cumulative grade point average of 2.2 in the 3rd and 4th year ACCT courses (as indicated below by *).

Year 3

- *ACCT 3323 Management Information Systems
 - *ACCT 3335 Intermediate Managerial Accounting
 - *ACCT 3350 Financial Accounting Foundations – see Note (i) below
 - *ACCT 3351 Intermediate Financial Accounting I
 - FINA 2360 Business Finance I
 - FINA 3361 Business Finance II
 - MGMT 3480 Ethical Responsibilities of Organizations
- Nine (9) credit hours in non-Commerce electives

Year 4

- *ACCT 3352 Intermediate Financial Accounting II – see Note (i) below
 - *ACCT 4470 Accounting Seminar
 - *Nine (9) credit hours in Accounting electives - see Notes (ii), (iii), and (iv) below
 - MGMT 4489 Strategic Management
- Three (3) credit hours in non-Commerce electives
Nine (9) credit hours in free electives - see Notes (iii) and (iv) below

Notes:

- It is recommended that students who are considering pursuing a professional accounting designation and/or cooperative Education take ACCT 3350 and FINA 2360 in Year 2 and take ACCT 3351 and 3352 in Year 3. In Year 2, students would defer 3 credit hours in ECON electives and 3 credit hours in non-Commerce electives until Year 3.
- CISY 2320, CISY 3326, CISY 4435, ACCT 3345, ACCT 3357 or any 4000 level course in Accounting not used to fulfill other requirements may be used to satisfy this requirement.
- Students cannot receive credit for any of ACCT 3332, 3333, 3334, 3341, 3342, or 3343 towards accounting electives or free electives if they major in Accounting.
- Students are advised to consult with the Departmental advisor when choosing electives if they plan to pursue a professional accounting designation.

Students with a grade below C in ACCT 2241, ACCT 2242, ACCT 3350, ACCT 3351 or ACCT 3352 are advised against pursuing an Accounting major.

Course Descriptions

2241 Introductory Financial Accounting

3 credit hours

Prerequisite: MGMT 1281 and CISY 1225 or appropriate work experience determined in advance by the Chairperson of the Department.

Students study basic accounting concepts and principles, their application to business transactions and financial statements, and the uses and limitations of the balance sheet, income statement, and statements of cash flow.

2242 Introductory Managerial Accounting

3 credit hours

Prerequisite: ACCT 2241. It is recommended that students complete MGSC 1205 before taking ACCT 2242.

This course serves as an introduction to managerial uses of accounting data in the production of goods and the provision of services. Accounting concepts and principles will be studied from the perspective of managerial decision-making.

3323 Management Information Systems

3 credit hours

Prerequisite: ACCT 2241 with a minimum grade of C and 2242 with a minimum grade of C.

This course is an introduction to the effective use and impact of computer information systems and emerging information technologies in business. Enterprise systems which include supply chain management, customer relationship management, business intelligence systems and collaborative systems are reviewed to understand their potential strategic value to organizations. Internal controls and the evaluation of information technology investments are common themes.

3332 Planning and Control

3 credit hours

Prerequisite: ACCT 2242

This course for non-accounting majors covers both the concepts and techniques of planning and control. Topics may include financial decision making, activity management, performance measurement and analysis, cost allocation, and management control systems. A major focus is the enhancement of teamwork, analytical, and other decision-making skills.

Note: Students cannot receive credit for this course if they also have credit for ACCT 3333, 3334 or 3335. This course is intended for non-Accounting majors. It will not be accepted for students majoring in Accounting.

3334 Cost Management: Systems Evaluation

3 credit hours

Prerequisite: ACCT 3333

This course is the second segment of the prior two part ACCT 3333-3334 sequence. The focus of this course is on topics related to the evaluation of performance and business processes (e.g. cost variance analysis, revenue variance analysis, budgeting, the balance scorecard, cost management and transfer pricing).

Note: This course is intended only for those students who have declared an Accounting major prior to the academic year 2015-16 and who have previously completed ACCT 3333.

3335 Intermediate Managerial Accounting

3 credit hours

Prerequisite: ACCT 2241 with a minimum grade of C, and 2242 with a minimum grade of C, and MGSC 2207.

Students will focus on topics related to the identification, classification, and evaluation of costs, various cost measurement systems (e.g., job order costing, process costing, activity-based costing, and cost estimation), and the evaluation of performance and business processes (e.g., cost variance analysis, revenue variance analysis, budgeting, and cost management).

Note: Students cannot receive credit for ACCT 3335 if they also have credit for ACCT 3333 or ACCT 3334.

3342 Intermediate Financial Accounting II

3 credit hours

Prerequisite: ACCT 3341 and FINA 2360.

This course is the second segment of the prior two part comprehensive intermediate ACCT 3341-3342 sequence addressing the application of accounting principles and concepts to liability and equity topics; accounting changes and preparations of the statement of cash flows. Classes 3 hrs. and lab 75 min. a week.

Note: This course is intended only for those students who have declared an Accounting major prior to the academic year 2015-16 and who have previously completed ACCT 3341.

3343 Financial Accounting Analysis

3 credit hours

Prerequisite: ACCT 2242

Financial Accounting Analysis is focused on the form and content of financial information disclosed by organizations to external parties together with the development of skills needed to analyze the information. The primary audience for this course is non-accounting majors in their third or fourth year.

Note: Students cannot receive credit for this course if they also have credit for ACCT 3342 or 3351. This course is intended for non-Accounting majors. It will not be accepted for students majoring in Accounting.

3345 Financial Accounting Theory

3 credit hours

Prerequisite: ACCT 3350 or 3343.

Study of objectives of financial accounting, major accounting theories, evolution of financial accounting theory and practice, survey of contemporary accounting practice with emphasis on latest developments and issues.

3350 Financial Accounting Foundations

3 credit hours

Prerequisite: ACCT 2241 with a minimum grade of C, CISO 1225, and MGSC 1205

Students will prepare for the demands of the Accounting Major by further developing their understanding of the accounting model, manual and electronic financial

statement preparation, and the effects of business transactions on financial statements and user decisions. The course is grounded in concepts underlying ASPE and IFRS GAAP and the requirements of the Canadian accounting profession.

Classes 3 hours and lab 75 minutes a week.

Note: Students cannot receive credit for ACCT 3350 if they also have credit for ACCT 3341 or ACCT 3342.

3351 Intermediate Financial Accounting I

3 credit hours

Prerequisite: ACCT 2242 and 3350, each with a minimum grade of C, and FINA 2360

Reinforcing and building on concepts introduced and competencies developed in ACCT 3350, students will address the GAAP recognition, measurement and reporting requirements for financial and non-financial assets and liabilities and for shareholders' equity, including accounting changes.

3352 Intermediate Financial Accounting II

3 credit hours

Prerequisite: COMM 2293, and a minimum grade of C in ACCT 3351

Students address the basic GAAP recognition, measurement and reporting requirements for accounting issues such as derivatives, earnings per share, leases, income taxes, and pensions, and also address interim reporting, subsequent events, related party transactions and the MD & A.

3357 International Accounting

3 credit hours

Prerequisite: ACCT 2242.

This course is an introduction to accounting in the international environment. building on introductory financial (and to a lesser extent managerial) accounting to provide the requisite background to understand accounting issues facing multinational firms.

4423 Accounting Information Systems and Control

3 credit hours

Prerequisite: COMM 2293, ACCT 3323, ACCT 3332 or 3335, ACCT 3343 or 3351, and MGMT 2384.

This course expands on the systems and control concepts introduced in ACCT 3323. Accounting transaction processing, the use of accounting information systems (AIS), and their design and construction are analyzed. Internal controls within AIS, evaluation techniques, and techniques for developing, documenting, and monitoring the effectiveness of AIS are investigated. Classes 3 hrs. and lab 75 minutes a week.

4443 Advanced Financial Accounting

3 credit hours

Prerequisite: COMM 2293 and ACCT 3342 with a minimum grade of C or 3352 with a minimum grade of C.

Students address the basics of accounting for and reporting of strategic equity investments in other enterprises, foreign currency translation and accounting for NPOs and public sector entities, including fund accounting.

4444 Advanced Financial Accounting - Special Topics

3 credit hours

Prerequisite: COMM 2293, and a minimum grade of C in one of ACCT 3342 or ACCT 3352.

Students are introduced to the application of accounting standards of current interest to the accounting profession. Examples include: natural resources of financial services, sustainability reporting and performance reporting by non-business organizations.

4445 Financial Statement Analysis

3 credit hours

Prerequisite: COMM 2293, ACCT 3343 or 3351, and FINA 3361.

This course will examine how accounting information can be used to evaluate a firm. The importance of economic conditions, accounting policy choice, and strategic management decisions for statement analysis will be considered. The course will also explore the usefulness and limitations of public disclosure for decision-making. Techniques for analysis and forecasting will be discussed as well as current research findings that impact on financial statement analysis.

4450 Auditing

3 credit hours

Prerequisite: ACCT 3342 or 3352 (or 3351 and permission of the Chair) with a minimum grade of C and COMM 2293.

A study of the basic concepts and theory of auditing including the auditing environment, the auditor's role, the structure of the profession, responsibilities of auditors, nature and theory of evidence, the auditor's report and other related topics.

4453 Taxation - Part I

3 credit hours

Prerequisite: COMM 2293 and a minimum grade of C in one of ACCT 3342 or ACCT 3351 or ACCT 3343.

This course is the first of a two course sequence which introduces the student to the fundamental principles of taxation (the theory), the compliance aspects of the law (the practice), and the rationale for specific tax provisions (the policy). The course also examines the effect of taxation law on the investment decisions of individuals and corporations. Both personal and corporation income taxation are covered.

4454 Taxation - Part II

3 credit hours

Prerequisite: ACCT 4453

This course examines in greater depth the topics covered in ACCT 4453, and introduces the student to the concept and principles of commodity taxation. Course assignments

concentrate on the effect of tax law on personal and managerial decision making.

4460 Internal/Operational Auditing

3 credit hours

Prerequisite: COMM 2293, ACCT 3332 or 3335, and, ACCT 3343 or 3351.

A study of the concepts and theory of internal/operational auditing including the internal/operational audit environment; the structure of the auditing profession; the duties, responsibilities and procedures of auditors; and the relationship between the internal/operational auditing function and the external audit.

4465 Accounting for Financial Instruments

3 credit hours

Prerequisites: COMM 2293, FINA 3361 and ACCT 3342 or ACCT 3343 or ACCT 3351.

The purpose of this course is to provide students with the background of, and accounting for the most common financial instruments. Particular attention is paid to risk, internal controls, standard-setting in Canada, accounting for derivatives, fair value, and hedge funds.

4470 Accounting Seminar

3 credit hours

Prerequisite: COMM 2293, and a minimum grade of C in ACCT 3334 or 3335, and a minimum grade of C in ACCT 3342 or 3351.

In this capstone course, students examine emerging issues in accounting for all forms of organizations including measurement, analysis, reporting, judgement and decision making. Integrating this material with knowledge gained in previous courses is a major purpose of the course.

4475 Business Consultancy

3 credit hours

Prerequisite: COMM 2293, ACCT 3350, and MGMT 3480 with a minimum CGPA of 3.0 out of 4.3.

This course allows students to gain hands-on business experience by working with clients of the Saint Mary's University Business Development Centre. Student groups receive a project proposal outlining the requirements, information needs and services they will provide the client during the semester. Projects generally take the form of a business plan, market study, or other business-related function and often involve financial projections. Each project provides students an opportunity to use skills learned in business courses and to understand the interrelationship between marketing, accounting, finance, and management in a practical business setting. Under supervision, students prepare a professional report and final presentation that communicate the project's results for the client.

Work groups often include students from different business disciplines and are assigned based upon the needs of the project. Groups schedule their preferred meeting times but are required to meet a minimum of three hours each week. For more information see www.smu.ca/smubdc.

4826 – 4849 Selected Topics in Accounting

3 credit hours

Prerequisite: ACCT 2242 and permission of Chairperson.

This course deals with selected topics in accounting. The topics to be covered will vary depending on the interests of the instructor and are subject to departmental approval.

4876 – 4899 Directed Study

3 credit hours

Prerequisite: COMM 2293 and permission of Chairperson of the Department and instructor.

This course provides an opportunity to study specific areas of accounting, auditing, taxation or information systems. A detailed course proposal must be submitted and will be evaluated on its educational merits. In-depth study of accounting concepts, systems, auditing, or taxation issues are intended to be within the scope of this course.

Anthropology (ANTH)

Chairperson,	R. Higgins
Professor	P. Erickson
Associate Professors	J. Fowler, E. Henry, R. Higgins, A. O'Malley, T. Peckmann
Assistant Professors	M. MacCarthy
Adjunct Professors	S. Beanlands, H. Cary, J. Cormack, K. Cottreau-Robins, A. Crompton, D. Grimes-MacLellan, T. Sable
Professor Emeritus	S. Davis

Departmental Policy

1. To obtain a minor in Anthropology, students are required to have completed at least twenty-four (24) credit hours in Anthropology. Six (6) credit hours must be selected from among ANTH 1202, 1271, 1280, or 1290.

Twelve (12) credit hours must be at the 2000 level or above.

2. To complete a double concentration in Anthropology, the requirement for the ninety (90) credit hour B.A., students are required to have completed at least twenty-four (24) credit hours in Anthropology. These must include ANTH 1202, 1271, 1280, and 1290. The remaining twelve (12) credit hours must be from courses at the 2000 level or above.

3. To obtain a major in Anthropology, students are required to have completed at least thirty-six (36) credit hours in Anthropology. These must include ANTH 1202, 1271, 1280, and 1290. The remaining credits must be at the 2000 level or above. The program of study for majors

will be discussed with the student's departmental advisor who will be assigned at the time the major is declared.

4. To obtain an Honours in Anthropology, a student must first be admitted to the honours program and then graduate from the honours program.

a. To be admitted to the program, a student must satisfy pertinent Faculty of Arts requirements and secure an approved thesis committee.

b. To graduate from the program, a student must satisfy pertinent Faculty of Arts requirements and complete the equivalent of sixty (60) credit hours in Anthropology including the following obligatory core: ANTH 1202, 1271, 1280, 1290, 4452, 4501, and 4502. In addition, students must complete, from the lists below, six (6) credit hours at the 2000-level or above in each of the four subfields of archaeological, biological, socio-cultural, and linguistic anthropology as well as three (3) credit hours in anthropological methods.

c. To graduate from the program, students must also receive minimum grades of B (3.0) in ANTH 4501 and 4502.

5. With the approval of the Chairperson of the Department, the following courses may be used to satisfy requirements for Anthropology courses at the 2000 level or above: ANTH 3826-3849, 3876-3899, 4826-4849, 4850-4875, and 4876-4899.

6. The Department offers a prize for excellence in anthropological writing to major or honours students. The prize is named in honor of Prince John Loewenstein, the founder of the Department, and consists of a cash award and certificate of merit. Details for submission of essays may be obtained from the Chairperson of the Department.

Note: The prerequisite for a given course may have a prerequisite itself. It is important to keep this in mind when planning your academic career.

Archaeology Courses

2273 Who Owns the Past?
 3373 Fieldwork in Archaeology
 3374 Archaeology Laboratory
 3375 World Prehistory
 3376 Archaeology of Death
 3378 Landscape Archaeology
 3379 The Archaeology of Acadia
 3467 Cultural Resource Management (CRM) Archaeology
 3571 Archaeological Mysteries
 3572 Archaeology of Empire
 3573 Archaeology of Halifax
 3574 Public Archaeology
 4378 Advanced Landscape Archaeology
 4462 Method and Theory in Historical Archaeology
 4464 Advanced Fieldwork in Archaeology
 4465 Advanced Archaeology Laboratory

Biological Anthropology Courses

2282 Introduction to Forensic Anthropology
 3381 Anthropological Genetics

3382 Paleoanthropology
 3471 Forensic Skeletal Identification

3472 Forensic Skeletal Analysis
 3473 Forensic Facial Anatomy
 3474 Human Variation
 3475 Paleopathology
 3701 Forensic Archaeology Field School
 4701 Internship in Forensic Anthropology

Socio-cultural Anthropology Courses

2301 Anthropology of Childhood
 2302 Nature of Culture
 2311 Ethnology: Melanesia
 2316 Indigenous Peoples of Canada
 2326 Contemporary East Asia
 2327 Japanese Society
 2401 Anthropology of Work
 3201 Anthropology of Food
 3302 Social Organization
 3303 Sex, Gender and Society
 3307 Visual Anthropology
 3309 Peasants
 3320 Anthropology in Hollywood
 3334 Warfare
 3710-3719 Field Study in Anthropology
 4710-4719 Advanced Field Study in Anthropology

Linguistic Anthropology Courses

2392 Linguistic Anthropology
 3308 Signs and Symbols
 3391 Learning a Field Language
 3396 Language Issues in Canada
 4491 Advanced Topics in Linguistic Anthropology
 4492 Ethnography of Communication

Anthropological Methods Courses

The course used to satisfy the anthropological methods requirement cannot at the same time be used to satisfy the archaeological, biological, socio-cultural, or linguistic anthropology requirement.

3373 Fieldwork in Archaeology
 3374 Archaeology Laboratory
 3391 Learning a Field Language
 3396 Language Use and Issues in Canada
 3471 Forensic Skeletal Identification
 3472 Forensic Skeletal Analysis
 3473 Forensic Facial Anatomy
 3701 Forensic Archaeology Field School
 3710-3719 Field Study in Anthropology
 4462 Method and Theory in Historical Archaeology
 4464 Advanced Fieldwork in Archaeology
 4465 Advanced Archaeology Laboratory
 4710-4719 Advanced Field Study in Anthropology
 RELS 3351 Field Research Methods

Course Descriptions

For all courses listed below, students without a stated course prerequisite can contact the course instructor and request a prerequisite override.

1202 Introducing Socio-Cultural Anthropology

3 credit hours

An introduction to the cultures and social systems of people from around the world. Topics include economics, politics, kinship, family, and religion, as well as the expressive aspects of culture such as the arts, myth, and ritual.

1271 Introducing Archaeology

3 credit hours

An introduction to archaeology and its contribution to an understanding of the development of culture. The course will investigate the history of the discipline and the development of techniques and principles used by archaeologists throughout the world.

1280 Introduction to Biological Anthropology

3 credit hours

A survey of human biological evolution. The principal topics are evolutionary theory, human genetics, the nature of race, living primates, and the fossil record of humanity.

1290 Introducing Language and Society

3 credit hours

Language is distinctively human and the basis for shared social interaction. Students are provided with basic concepts for understanding language and communication from the fields of anthropology and sociolinguistics.

2273 Who Owns the Past?

3 credit hours

Prerequisite: ANTH 1202, 1271, 1280, 1290, or 2282

Why preserve the past, and in what form? How has the past been used and abused for political purposes in different historical and cultural contexts? To what extent have administrative policies and ethnocentric attitudes towards indigenous peoples alienated indigenes from anthropologists? How do museums, collections, the restitution of cultural property and the illicit traffic in relics contribute to the situation?

2282 Introducing Forensic Anthropology

3 credit hours

This course is an introduction to the multidisciplinary nature of forensic anthropology. It explores the myths and realities of the search for human remains in crime scenes, what should be expected from a forensic anthropology expert in the courtroom, some of the challenges in mass fatality incident responses, and what a student should consider if they want to pursue a career in forensic anthropology.

2301 Anthropology of Childhood

3 credit hours

Prerequisite: ANTH 1202.

This course examines the nature of childhood in various societies with attention to the development and socialization of children from birth through adolescence. Primary emphasis will be given to a perspective that views children as active participants in their own worlds as well as the worlds of others. While focusing on the social and culture contexts of children's lives, we will explore topics that include parent-child relations, education, child labor, friendship, play, and the relationship of children to media technologies and consumer culture.

2301 Nature of Culture

3 credit hours

Prerequisite: Three (3) credit hours in ANTH, ACST, GEOG, HIST, IDST, POLI, SOCI, or WMST.

Students are introduced to the concept of culture as an essential aspect of human nature. Emphasis is given to contemporary theories concerning society and culture.

2311 Ethnology: Melanesia

3 credit hours

Prerequisite: ANTH 1202

Selected societies and cultures of Papua New Guinea and adjacent island clusters are examined. Special attention is given to cultural diversity within this region. Specific topics covered include variation in the relationship between men and women, variation in leadership patterns, warfare and descent systems.

2316 Indigenous Peoples of Canada

3 credit hours

Prerequisite: ANTH 1202

This course provides a survey of the varied Indigenous cultures of Canada. Some of the socio-cultural changes associated with contacts between indigenous peoples and Europeans are considered. Variation in roles assumed by men and women are also discussed.

2326 Contemporary East Asia

3 credit hours

Prerequisite: ANTH 1202

This course will consider East Asia as a region with shared cultural and historical legacies, while examining the radically diverse contemporary conditions of each country.

2327 Japanese Society

3 credit hours

Prerequisite: ANTH 1202

This course introduces Japanese society through a life course perspective. Topics include family, education, the work place, gender, class, ethnic minorities and contemporary social problems.

2392 Linguistic Anthropology [LING 2392]

3 credit hours

Prerequisite: One of ANTH 1202, ANTH 1290, LING 1200

Students explore the relationship between language and culture in diverse ethnographic settings. Attention will be paid to the unique contributions of anthropology to the study of language.

2401 Anthropology of Work

3 credit hours

Prerequisite: Three (3) credit hours in ANTH, ACST, HIST, IDST, POLI, SOCI, or WMST

Anthropologists have long been interested in work as an aspect of economy (that is, how productive tasks get

accomplished), as a determiner of general social structure (that is, a core institution), and as a theme in the ethos of various societies (that is, work as an ethic). As anthropologists turn their attention to industrial societies (and as other disciplines adopt ethno-geographic methods), the workplace is often treated as were small communities in the past. Special attention is given to methods of data collection in workplaces in complex societies. There will also be an examination of the application of these techniques by scholars, development agencies, commercial enterprises, and political movements.

3201 The Anthropology of Food

3 credit hours
Prerequisite(s): ANTH 1202

The goal of this course is to understand the socio-cultural and economic dynamics that shape food and eating, and the roles that both play in shaping people's everyday lives. Students will critically examine a wide range of processes connected to food and eating around the world.

3302 Social Organization

3 credit hours
Prerequisite: ANTH 1202

This course introduces the student to the basics of social structure and social organization. Emphasis is placed upon the importance of kinship, politics, economics, beliefs, and the arts for an understanding of human socio-cultural life.

3303 Sex, Gender and Society [WMST 3303]

3 credit hours
Prerequisite: ANTH 1202, ANTH 1290, or three (3) credit hours in ACST, HIST, IDST, POLI, SOCI, or WMST.

Students are introduced to an anthropological perspective on the relationship between culture, biology, and social expectations of male and female behavior. Emphasis is given to examining how individuals and societies imagine, negotiate, perform and contest dominant gender ideologies, roles, relations and identities.

3307 Visual Anthropology

3 credit hours
Prerequisite: Six (6) credit hours in ANTH

Students are introduced to the field of visual anthropology. The course has two major foci:
1.) examination of the use of visual material in anthropological research and in the presentation and consumption of anthropological knowledge, focusing particularly on photography and film, and 2.) addressing visually as a domain of anthropological inquiry, exploring ways of seeing in culturally and historically specific contexts.

3308 Signs and Symbols

3 credit hours
Prerequisite: ANTH 1202 or ANTH 1290

We perceive the world around us through the logic of signs. This course is an introduction to the fields of symbolic and semiotic anthropology, examining the role of symbols in

constituting cultural reality. Special attention will be paid to both universal and culturally specific symbolic practices as well as considering the role symbols play in our own lives.

3309 Peasants

3 credit hours
Prerequisite: ANTH 1202

A number of substantive studies of peasant society and culture are examined. Examples are drawn from diverse regions including Mexico, India, China, Japan, Europe and Southeast Asia. Theories related to similar and contrasting features of peasant culture are considered.

3316 Anthropology of Religion [RELS 3316]

3 credit hours
Prerequisite: Any one of ANTH 1202, RELS 1210, 1211, 1220, 1221, 1251

This course surveys major developments in the anthropological study of religions. The course will provide a solid theoretical foundation for the field study of contemporary religions.

3320 Anthropology in Hollywood

3 credit hours
Prerequisites: Twelve (12) credit hours in ANTH

Students explore the anthropological analysis of cinema and the public image of anthropology as represented in popular movies.

3334 Warfare

3 credit hours
Prerequisite: ANTH 1202

The course will examine the nature and structure of human conflict by evaluating anthropological theories of warfare and aggression in light of the case materials available on small-scale societies. In addition, particular attention will be devoted to: 1) the role of racism in human conflict, and 2) a critique of socio-biological theories of human aggression.

3373 Fieldwork in Archaeology

3 credit hours
Prerequisite: ANTH 1271

This course offers detailed instruction with practical application of archaeological field techniques. This course is generally off-campus at an archaeological site. As such, the course is dependent upon external funds and has a limited enrollment. Please consult the Departmental Chairperson regarding availability.

3374 Archaeology Laboratory

3 credit hours
Prerequisite: ANTH 3373

The course offers training in the laboratory, analysis of materials recovered from an archaeological site. To maintain continuity of the learning experience, students

must take ANTH 3373 in the same year this course is offered.

3375 World Prehistory

3 credit hours

Prerequisite: ANTH 1271

Students examine archaeological evidence of early human activity and how this evidence has been interpreted. We examine human origins, cultural adaptations, and the notion of “human nature”.

3376 Archaeology of Death

3 credit hours

Prerequisite: ANTH 1271

This course will examine funerary customs within a global framework. Mortuary rituals afford not only insight into the death practices of past societies, they may also provide a basis from which to investigate a broad range of important social and anthropological questions, from social organizations, gender relations, and social inequality, to health and disease, diet, and biological affinity, to the ethical and legal aspects of exhumation and reburial of skeletal remains.

3378 Landscape Archaeology

3 credit hours

Prerequisite: ANTH 1271

This course offers an introductory survey to both the empirical and interpretive aspects of Landscape Archaeology incorporating real-world case studies drawn from local archaeological resources. It emphasizes the human-scale experience of the past rather than grand, overarching models, and borrows liberally from socio-cultural anthropology.

3379 The Archaeology of Acadia

3 credit hours

Prerequisite: ANTH 1271

Drawing upon primary source evidence, and placing a particular emphasis on materiality, thematic emphasis is given to colonial Nova Scotia as a stage for conflict and negotiation between Aboriginal and European peoples and adaptation of European social, political, and economic practices to a North American environment. This course explores the European colonization of the Maritime Provinces from contact to the middle of the 18th century.

3381 Anthropological Genetics

3 credit hours

Prerequisite: ANTH 1280

A survey of human genetics, including Mendelian genetics, multifactorial genetics, cytogenetics, and population genetics, intended to enhance understanding of human biological variation.

3382 Paleoanthropology

3 credit hours

Prerequisite: ANTH 1280

A survey of primate and human evolution as revealed in the fossil record.

3391 Learning a Field Language [LING 2391]

3 credit hours

Prerequisite: One of ANTH 1202, ANTH 1290, LING 1200

Learning a field language is an essential part of anthropological fieldwork. Students learn concepts and methods related to language elicitation, and acquisition of communicative competence in an unknown language. The practical application of these methods in ethnographic settings is stressed.

3396 Language Use and Issues in Canada [LING 3396]

3 credit hours

Prerequisite: ANTH 1290 or LING 1200

Geographically vast and linguistically diverse, Canada offers an ideal case study of contemporary issues in the study of language. Topics include official bilingualism, functional multilingualism, heritage languages, and indigenous languages. Questions of maintenance, revitalization, contact and change will be examined throughout.

3467 Cultural Resource Management (CRM) Archaeology

3 credit hours

Prerequisite: ANTH 1271

Cultural Resource Management (CRM), as an applied form of archaeological research, is a rapidly expanding field of practice where many students and graduates of archaeological curricula develop their professional careers. Students will be introduced to its principles and learn about legislation, policy and protocols that impact CRM archaeology. Students will also be introduced to applications of geomatics technology, including geographic information systems (GIS), for CRM archaeology. Case studies will comprise a fundamental source of information in this course. The format is that of a seminar.

3471 Forensic Skeletal Identification

3 credit hours

Prerequisite: Thirty (30) credit hours, including ANTH 1280 or ANTH 2282.

A detailed examination of bones of the human skeleton for forensic purposes.

Note: It is recommended that students who complete ANTH 3471 also complete ANTH 3472.

3472 Forensic Skeletal Analysis

3 credit hours

Prerequisite: ANTH 3471

A detailed analysis of the human skeleton aimed at creating profiles of decedents and understanding circumstances surrounding their deaths.

3473 Forensic Facial Anatomy

3 credit hours

Prerequisite: Thirty (30) credit hours

Students study facial anatomy and its importance in forensic human identification through an examination of topics such as human osteology, soft tissue anatomy, how the brain recognizes faces, collection of facial tissue depths using ultrasound, and 3-D facial reconstruction.

3474 Human Variation

3 credit hours

Prerequisite: Thirty (30) credit hours including ANTH 1280, or ANTH 2282.

Students examine the structure of human variation from a biological perspective through an exploration of topics such as: "race" and biology; eugenics; sex, gender and sexuality; and environmental racism.

3475 Palaeopathology

3 credit hours

Prerequisite: Thirty (30) credit hours including ANTH 1280 or ANTH 2282

Palaeopathology is the study of diseases in past human populations. In this course you will learn how to diagnose simple bone pathologies, and in the process gain an understanding of bone physiology and pathology and how these processes work. The main part of the course will focus on the major categories of disease that affect the skeleton. We will also examine how certain diseases have affected human history.

3571 Archaeological Mysteries

3 credit hours

Prerequisite: ANTH 1271

Students will survey spectacular claims about the past found in public discourse. Questions such as the nature of archaeological evidence, the degree to which archaeology can be said to be a science, and the treatment of alternative interpretations of the past will be addressed.

3572 Archaeology of Empire

3 credit hours

Prerequisite: ANTH 1271

This course examines the phenomenon of imperialism through an archaeological lens. Students will explore the relationships between material culture and systems of social power.

3573 Archaeology of Halifax

3 credit hours

Prerequisite: ANTH 1271

A variety of research methods associated with the study of urban materiality will be examined. Using Halifax as a case study, students will participate in research and field work that will contribute directly to an understanding of the urban archaeology and history of Halifax and its people.

3574 Public Archaeology

3 credit hours

Prerequisites: ANTH1271

Public archaeology concerns how archaeology and archaeologists function beyond the professional community. Students consider why it is important for people to know about archaeology. They also examine how governments, teachers, writers, and journalists interact with the discipline.

3701 Forensic Archaeology Field School

3 credit hours

Prerequisite: Sixty (60) credit hours.

This course is an introduction to forensic archaeology. It will teach students field recovery techniques of surface and buried remains as well as the protocol associated with crime scenes and exhibit documentation. Topics that will be covered include: introduction to forensic archaeology and anthropology (including roles of various law enforcement officials), crime scene safety and ethics, crime scene and exhibit documentation (scene photography, note taking, chain of custody of exhibits), establishing scene perimeters, searching for clandestine burials and human remains, forensic taphonomy, gridding scenes, mapping scenes, excavation techniques, soil analysis, and scene restoration.

3710 - 3719 Field Study in Anthropology

3 credit hours

Prerequisite: Twelve (12) credit hours in Anthropology and permission of the instructor

This course is designed to allow students to take advantage of field study, including international field study, opportunities not necessarily supervised by a member of the Department of Anthropology. Special arrangements for the course must be approved by the Department Chairperson, at the request of the student.

3826-3849 Special Topics/Seminars in Anthropology

3 credit hours

Prerequisite: Six (6) credit hours at the 2000 level or above

To be offered in response to expressed student desire for advanced instruction in anthropological topics not covered intensively in substantive course offerings; or to take advantage of expertise of visiting scholars. The format is usually that of a seminar.

3876 - 3899 Directed Independent Study in Anthropology

3 credit hours

4378 Advanced Landscape Archaeology

3 credit hours

Prerequisite: ANTH 3378

This course offers a practical exploration of empirical landscape archaeological methods such as pedestrian and geophysical survey, and historical map and aerial photograph interpretation. Students apply these methods in the field and produce research reports in accordance with federal and provincial archaeology regulations.

4411 Ethnographic Research Methodology

3 credit hours

Prerequisite: ANTH 1202 or SOCI 1210

Students are introduced to the variety of ethnographic research methods applicable in the field setting. Through a series of exercises (that may include work in the local community) the students develop and design a long-term research project, and learn how to analyze their findings. A brief introduction to quantitative methods is offered.

4452 History of Anthropological Thought

3 credit hours

Prerequisite: ANTH 1202, 1271, 1280, and 1290

A history of anthropological theory focused on the twentieth and early twenty-first centuries.

4462 Method and Theory in Historical Archaeology

3 credit hours

Prerequisite: ANTH 1271

Concepts and methods of historical archeology, survey techniques, data collection, and laboratory analysis. Suggested for students who intend to take fieldwork courses in archeology.

4464 Advanced Fieldwork in Archaeology

3 credit hours

Prerequisite: ANTH 3373

Students are expected to have knowledge of field techniques used in archaeology. They assist a senior archaeologist in the excavation of an archaeological site, being responsible for all levels of recording. Please consult the Departmental Chairperson regarding availability.

4465 Advanced Archaeology Laboratory

3 credit hours

Prerequisite: ANTH 3374

Students must have a knowledge of laboratory techniques used in archaeology. They use this knowledge to record, analyze, and report on archaeological specimens. This course may be twinned with ANTH 4464, should the site being excavated produce sufficient archaeological materials.

4491 Language and Culture [LING 4491]

3 credit hours

Prerequisite: ANTH 1290 or LING 1200

This course examines topics in the field of linguistic anthropology, combining a sophisticated understanding of the structure of language with the cultural realities of its use. Students will learn about current debates and advanced concepts in the field, while being given the opportunity to conduct their own research on language behaviour.

4492 Ethnography of Communication [LING 4492]

3 credit hours

Prerequisite: ANTH 1290 or LING 1200

Linguistic anthropologists analyze the dynamics of communication through the medium of ethnography. This course critically examines how anthropologists collect and convey their findings on language use. Case studies combine ethnographic texts with theoretical background to allow students to evaluate recent anthropological research.

4501 Honours Thesis Research

3 credit hours

Prerequisite: Restricted to students who have been accepted by the department into the honours program.

The application of anthropological theory and methods to a well-defined area of study identified and communicated to the student's honours thesis committee prior to enrolment. Students will work closely with their principal advisors and two other committee members.

4502 Honours Thesis Writing

3 credit hours

Prerequisite: ANTH 4501

This course examines the communication of the results of anthropological inquiry to the scholarly community through the writing of an honours thesis. While students will work closely with their thesis committees, all faculty members of the department will evaluate theses on the basis of content and style.

4701 Internship in Forensic Anthropology

6 credit hours

Prerequisite: ANTH 3471 and 3472

This is a practical, hands-on course in forensic anthropology. Students will use their knowledge of forensic methodologies for the examination and identification of human remains as well as the writing of forensic anthropology reports through work in an official morgue.

4710 - 4719 Advanced Field Study in Anthropology

3 credit hours

Prerequisite: One of ANTH 3710 – 3719

Students will investigate and develop a response to a specific research questions in a particular field site (e.g. Japan, Arctic Canada, etc.). Students will travel to the field site with a faculty member. Students will apply anthropological theories and methods to complete a guided research project. This course generally takes place between May and August and involves additional costs. Locations and foci will vary from year to year. Please consult Departmental Chairperson for availability.

4826 - 4849 Special Topics/Seminars in Anthropology

3 credit hours

Prerequisite: Six (6) credit hours at the 2000 level or above

To be offered in response to expressed student desire for advanced instruction in anthropological topics not covered intensively in substantive course offerings; or to take advantage of expertise of visiting scholars. The format is usually that of a seminar.

4850 - 4875 Directed Independent Study in Anthropology
6 credit hours

4876 - 4899 Directed Independent Study in Anthropology
3 credit hours

Arabic (ARBC)

Chairperson M. McCallum, Modern Languages and Classics

Courses in Arabic are offered by the Department of Modern Languages and Classics

1. Enrollment in some language courses involves the following formal placement procedures.

All students seeking entry into language courses who have not previously taken a language course at Saint Mary's University must complete and return the Language Profile Form to the Department of Modern Languages and Classics.

Based on the information provided in the Language Profile Form, students may receive notification from the Department to appear for an oral interview and/or a written placement test at a designated time.

The Department of Modern Languages determines the appropriate course placement for each student

- (i) Permission to register or remain in a particular language course can be refused if the Department judges that the student's knowledge exceeds the level for that course.
- (ii) Native speakers are not eligible to receive advanced credit for language courses.
- (iii) Completion of Advanced Standing (transfer) courses does not exempt a student from taking the placement test.

2. In order to ensure the academic integrity in language courses, especially at the lower levels of instruction, the Department of Modern Languages and Classics does not allow native or near-native speakers of a particular target language to enroll in courses at the 2000 level or lower.

Students who misrepresent their knowledge of any given language by providing inaccurate or incomplete information about their linguistic educational history will be subject to disciplinary action as laid out in Academic Regulation 19.

3. The Department of Modern Languages and Classics supports a policy of regular class attendance by students. Frequent, unexplained absences from class will result in a lowering of the final grade in a manner to be determined by each faculty member.

Course Description

1100 Introduction to Arabic: Language and Cultures
6 credit hours

An introductory language course for those beginning the study of Arabic language and cultures. This course is designed to offer an initial competency in Arabic, and is not offered to those with an Arabic-speaking background.

Asian Studies (ASNT)

Program Coordinator	B. Sewell, Associate Professor, History
Associate Professors	A. Avdulov, C. Beaupré, Modern Languages

Since 1975, the Asian Studies degree program has helped students understand Canada's relationship with Asia and the impacts Asia has upon Canada. The program consists of the study of language, culture, geography, history and society, and facilitates student travel to experience parts of Asia first hand. Students are encouraged to add Asian Studies as a minor or a second major, or a more focused minor in either Chinese or Japanese Studies. Saint Mary's University is the only institution in the Atlantic Provinces offering a comprehensive degree-granting program in Asian Studies.

An academic background in Asian Studies will help to prepare students for careers in a variety of fields, including the diplomatic service, in international trade and industry and in the secondary and university education.

Facility in an Asian language is central to the program and students are encouraged to consider participating in one or more of our cultural exchange programs overseas.

Regulations for Majors

To major in Asian Studies, students must complete forty-two (42) credit hours within the following constraints:

- a. twelve (12) consecutive Asian language credit hours (Introductory and Intermediate).
- b. six (6) credit hours from the following: HIST 1222, RELS 1220, RELS 1221
- c. ASNT 3300 and ASNT 4400.
- d. eighteen (18) additional core credit hours from at least two different disciplines other than languages. The list of core courses is given below.
- e. Twenty-four (24) credit hours in Asian Studies core courses at the 2000 level or above.

Basic Arts Requirements

Students may find it useful to note that the following introductory courses available for credit towards degrees in Asian Studies also fulfill Basic Arts requirements:

Requirement 3b

JPNS 1100	Introductory Japanese
CHNS 1101	Introductory Modern Chinese I

Requirement 3c

ASNT 1105	Introduction to Chinese Culture
ASNT 1106	Introduction to Japanese Culture
HIST 1208	Global History: 1450 to the Present

HIST 1222	Introduction to East Asian History
RELS 1220	Introduction to Comparative Religions I
RELS 1221	Introduction to Comparative Religions II

Requirement 3d

ANTH 1202	Introduction to Socio-Cultural Anthropology
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Regulations for Honours

1. Admission to and continuance in the honours program in Asian Studies follows the general regulations of the Faculty of Arts.
2. To obtain an honours or double honours program in Asian Studies, students must complete at least sixty (60) credit hours and satisfy the following requirements;
 - a. all of the requirements of the major listed above.
 - b. six (6) additional Asian language credit hours;
 - c. six (6) additional credit hours at the 2000 level or above in Anthropology, Asian Studies, History or Religious Studies in courses listed as Asian Studies core courses or recognized by the Coordinator as relevant for Asian Studies;
 - d. an honours thesis (ASNT 4500), prepared during the final year of study in the program. The topic must be approved by the Asian Studies Committee and the thesis will be supervised and graded by three faculty members chosen by the Asian Studies Committee; and
 - e. annual approval of their program of study by the Coordinator of the Asian Studies Committee.

Regulations for Minors

Students majoring in another academic discipline may obtain a minor in Asian Studies by completing the equivalent of twenty-four (24) credit hours approved for the program:

- (a) CHNS 1101 or JPNS 1100;
- (b) ASNT 3300 and ASNT 4400; and
- (c) twelve (12) credit hours from the Asian Studies Core Courses (below) (at least six from the 2000 level or above).

Minor in Chinese Studies

Students in the undergraduate Arts program who are not Asian Studies majors can complete a minor in Chinese Studies by completing the following courses: CHNS 1101; ASNT 3300 and 4400; and twelve (12) other credit hours on China in at least two different disciplines taken from the following list:

ANTH 2326, ASNT 1105, ASNT 2305, ASNT 3310, CHNS 2200, CHNS 3300, HIST 1222, HIST 2381, HIST 2382, HIST 2383, HIST 3371, HIST 3416, HIST 4572, RELS 2327, RELS 3359, RELS 3360.

Transfer credits from other academic institutions may be recognized.

Minor in Japanese Studies

Students in the undergraduate Arts program who are not Asian Studies majors can complete a minor in Japanese Studies by completing the following courses: JPNS 1100; ASNT 3300 and 4400 and twelve (12) other credit hours on Japan in at least two different disciplines taken from the following list:

ANTH 2326, ANTH 2327, ASNT 1106, ASNT 2303, ASNT 3302, ASNT 4410, HIST 1222, HIST 2354, HIST 2355, HIST 2356, HIST 4573, JPNS 2200, JPNS 3300, RELS 2327.

Transfer credits from other academic institutions may be recognized.

Certificate Programs

Information concerning the requirements for the Certificate of Chinese Studies Program and the Certificate of Japanese Studies Program are found in Section 4 of this *Calendar* under Chinese and Japanese.

Regulation for Concentrations

To obtain concentrations in Asian Studies, Chinese Studies, or Japanese Studies in partial fulfillment of the B.A. General Degree (Double Arts Concentrations), a minimum of twenty-four (24) credit hours in one of these three subject areas is required; also a minimum grade point average of 2.00. Further details are available from the Coordinator.

Dual Degree Program

Since it is possible to obtain two undergraduate degrees from Saint Mary's University, for Commerce students it may be attractive to combine a degree in their field with a major in Asian Studies, especially in light of the interest which the Canadian federal and provincial governments and private industries have in developing trade with the Pacific Rim countries. It is relatively easy to combine Commerce and Asian Studies if Commerce students select their non-commerce and free electives carefully. The second degree can be obtained in a year or less in addition to the normal time requirement for a Commerce degree. For more information please contact the Dean of Arts, the Dean of the Sobey School of Business, or the Coordinator of Asian Studies, and also consult the material at the conclusion of the Faculty of Arts entry in Section 3 of this *Calendar*.

Asian Studies Core Courses

Note: With the Coordinator's permission, relevant courses not listed below may be acceptable for credit towards the Major or Minor in Asian, Chinese or Japanese Studies.

Anthropology (ANTH)

1202 Introduction to Socio-Cultural Anthropology
2326 Contemporary East Asia

2327 Japanese Society
3309 Peasants

Asian Studies (ASNT)

1105 Introduction to Chinese Culture
1106 Introduction to Japanese Culture
1107 Introduction to Korean Culture
2210 Indigenous Voices in Modern Asia
2303 Contemporary Japan: Institutions and Culture
2305 Contemporary China: Institutions and Culture
3300 Multidisciplinary Study of Asia
3302 Japanese Film and Literature
3310 Chinese Film and Literature
3826-3849 Selected Topics in Asian Studies
4400 Seminar in Asian Studies
4500 Honours Thesis
4826-4849 Selected Topics in Asian Studies
4876-4899 Directed Study

Geography (GEOG)

1100 Global Perspectives on Land and Life
1200 People, Place and Environment

History (HIST)

1208 Global History: 1450 to the Present
1222 Introduction to East Asian History
2354 Japan before 1800
2355 Late Tokugawa and Imperial Japan: 1800-1945
2356 Japan since 1945
2381 China before 1800
2382 China in Revolution: 1800-1949
2383 China since 1949
2393 History of Vietnam
2394 History of Korea
3371 The Chinese Cultural Revolution in History and Memory
3416 Love and Family in China
4572 Memories of WW II in China
4573 The Rise and Fall of the Japanese Empire

Arabic (ARBC)

1100 Introduction to Arabic: Language and Cultures

Chinese (CHNS)

1101 Introductory Modern Chinese I
1102 Intermediate Modern Chinese II
3300 Advanced Oral and Written Chinese I
3301 Advanced Oral and Written Chinese II

Japanese (JPNS)

1100 Introductory Japanese
2200 Intermediate Japanese
3300 Advanced Oral and Written Japanese I
3301 Advanced Oral and Written Japanese II

Religious Studies (RELS)

1220 Introduction to Comparative Religions I
1221 Introduction to Comparative Religions II
2323 The Islamic Religious Tradition
2326 The Hindu Religious Tradition
2327 The Buddhist Religious Tradition
2380 Vietnamese Religious Traditions
2401 Religions of China and Japan
3010 Vietnamese Religious Traditions

3312	Theologies of Liberation
3337	Religions and Art: The East
3358	Religious Diversity in Canada
3359	Buddhist Paths
3360	Engaged Buddhism
3370	Introduction to the Qur'an
3373	Islam in South Asia
3374	Islam in North America since 9/11
4387	Religious Pluralism
4500	Religions and Orientalism

Asian Studies Course Descriptions

1105 Introduction to Chinese Culture

3 credit hours

This course surveys aspects of Chinese culture in their historical and social contexts. Topics will be selected by the instructor and may include folklore, literature, language and material culture. No previous study of China or the Chinese language is required.

The Asian Studies Program does not allow students to register or remain in ASNT 1105 if it is judged that the student already knows the course content. The final decision will rest with the Program Coordinator. The course is intended as an introduction for students with little or no previous exposure to Chinese culture.

1106 Introduction to Japanese Culture

3 credit hours

This course surveys aspects of Japanese culture in their historical and social contexts. Topics will be selected by the instructor and may include folklore, literature, language and material culture. No previous study of Japan or the Japanese language is required.

The Asian Studies Program does not allow students to register or remain in ASNT 1106 if it is judged that the student already knows the course content. The final decision will rest with the Program Coordinator. The course is intended as an introduction for students with little or no previous exposure to Japanese culture.

1107 Introduction to Korean Culture

3 credit hours

Students survey aspects of Korean culture in their historical and social contexts. Topics will be selected by the instructor and may include folklore, literature, language, religion, philosophy, and material culture. No previous study of Korea or the Korean language is required.

2210 Indigenous Voices in Modern Asia

3 credit hours

Prerequisites: None

Students explore contemporary political, social, economic, and cultural issues apparent among the indigenous minority communities in China and Southeast Asia, through an examination of literary, cinematic, theatrical, artistic, and musical forms of expression.

2303 Contemporary Japan: Institutions and Culture

3 credit hours

This course will introduce modern Japan, accentuating the institutions of family, school, and workplace. Emphasis will be placed on values, social participation, and the individual's position within the context of contemporary Japanese society. No knowledge of the Japanese language is required.

2305 Contemporary China: Institutions and Culture

3 credit hours

This course will introduce modern China, accentuating the institutions of family, school, and workplace. Emphasis will be placed on values, socio-cultural practices, and the individual's position within contemporary Chinese society. No knowledge of the Chinese language is required.

3300 Multidisciplinary Study of Asia

3 credit hours

This course will introduce students to the study of Asia from a multidisciplinary perspective. Using various disciplines in the humanities, social science and commerce fields, students will review how various disciplines intersect to create a fuller understanding of Asia.

3302 Japanese Film and Literature

3 credit hours

This course will explore the cultural representation of traditional and modern Japanese culture through film and literature. Focus will be on major works of Japanese literature, ranging from pre-modern poetry to modern fiction, as well as their cinematic adaptations. All selected works of literature are in English translation. No knowledge of the Japanese language is required.

3310 Chinese Film and Literature

3 credit hours

This course will explore the rich Chinese culture through representative major works of modern literature, as well as new film and contemporary art in China and Taiwan. Major themes to be considered include the family, the changing role of women, Western influences, modernization, and national identity. All selected works of literature are in English translation. No knowledge of the Chinese language is required.

3800 - 3825 Selected Topics in Asian Studies

6 credit hours

The subject matter of these courses will be announced from time to time. They will cover various aspects of Asian Studies and will be multi-disciplinary in nature. The topics to be examined will be determined by the instructor and/or Department.

3826 - 3849 Selected Topics in Asian Studies

3 credit hours

The subject matter of these courses will be announced from time to time. They will cover various aspects of Asian Studies and will be multi-disciplinary in nature. The topics to be examined will be determined by the instructor and/or Department.

4400 Seminar in Asian Studies

3 credit hours

Prerequisite: ASNT 3300 and twelve (12) core credit hours in Asian Studies.

This half course will provide an opportunity for Asian Studies students to integrate their knowledge of Asia in a multidisciplinary fashion. This course may include case studies, specific area studies and comparative approaches to regions in Asia. Both students and faculty involved in the Asian Studies program will participate in this course.

4500 Honours Thesis

6 credit hours

Prerequisite: admission to final year of the honours program.

Asian Studies students are required to submit and defend a thesis to be selected and prepared in conjunction with a faculty advisor.

4800 - 4825 Selected Topics in Asian Studies

6 credit hours

The subject matter of these courses will be announced from time to time. They will cover various aspects of Asian

Studies and will be multi-disciplinary in nature. The topics to be examined will be determined by the instructor and/or Department.

4826 – 4849 Selected Topics in Asian Studies

3 credit hours

The subject matter of these courses will be announced from time to time. They will cover various aspects of Asian Studies and will be multi-disciplinary in nature. The topics to be examined will be determined by the instructor and/or Department.

4876 - 4899 Directed Study

3 credit hours

Prerequisite: permission of ASNT Coordinator and instructor.

Intended to supplement or provide an alternative to the regular courses in Asian Studies in order to meet the special needs and interests of students, the course provides an opportunity to study a particular subject in detail and requires from the student some measure of independence and initiative.

Astronomy (ASTR) and Astrophysics

Chairperson	I. Short
Observatory Director	D. Lane
Undergraduate Co-ordinator	L. Gallo
Graduate Co-ordinator	R. Thacker
Professors	D. Clarke, L. Gallo, R. Kanungo, A. Sarty, M. Sawicki, I. Short, R. Thacker
Associate Professors	R. Austin
Assistant Professors	I. Damjanov, A. Wiacek
Adjunct Professors	F. Ames, P. Bennett, S. Chapman, C. Lovekin
Professors Emeriti	R. Deupree, D. Guenther, G. Mitchell, D. Turner, G. Welch

Astronomy courses are offered by the Department of Astronomy and Physics
Department website: <http://www.ap.smu.ca>

Note: This segment lists undergraduate courses in Astronomy and programs in Astrophysics only. Course and program descriptions for physics may be found in the Physics (PHYS) segment of Section 4 in this *Calendar* while graduate course descriptions and programs in astronomy may be found in the *Graduate Academic Calendar*.

Degree Programs in Astrophysics

Because all modern-day astronomers are also physicists, no undergraduate degree in astronomy alone is offered. Instead, the Department offers three programs in

astrophysic; a major, an honours and a minor. The astrophysics major program is designed for those who want a solid foundation in modern physics and astronomy, but who are not necessarily planning to continue their education beyond the B.Sc. The astrophysics honours program is designed for those who intend to continue on to graduate school, and involves the preparation of an honours thesis (PHYS 4790) under the supervision of a faculty advisor in their fourth year. As listed below, these two programs are identical through the second year meaning students need not commit to the honours program until the third year of study. Note also, as listed, these programs conform to the requirements of the Science faculty as outlined in Section 3.

Major in Astrophysics – Requirements:

The requirements for the degree of Bachelor of Science with Major apply as listed in this Academic Calendar under the heading *Faculty of Science, Bachelor of Science - Major* in Section Three. The specific courses that make up the fifty-seven (57) credit hours (specifically eighteen (18) credit hours in Astronomy, and thirty-nine (39) credit hours in Physics) required to satisfy 6 (d) are contained in the following list of required Science courses for the program:

- ASTR 1100 Introduction to Astrophysics
- ASTR 2100 Foundations of Astrophysics
- ASTR 2400 Physics of Stars
- ASTR 3400 Interstellar Matter and Stellar Evolution
- ASTR 3500 Galaxies and Cosmology
- Three (3) credit hours from: ASTR 4200 Observational Astronomy, or ASTR 4600 High-Energy Astrophysics
- PHYS 1210 University Physics I

- PHYS 1211 University Physics II
- PHYS 1500 Introduction to Modern Physics
- PHYS 2300 Vibrations, Waves and Optics
- PHYS 2301 Analytical Mechanics
- PHYS 2400 Electricity and Magnetism
- PHYS 3200 Mathematical Methods in Physics I
- PHYS 3201 Mathematical Methods in Physics II
- PHYS 3300 Classical Mechanics
- PHYS 3350 Thermal Physics
- PHYS 3400 Electrodynamics
- PHYS 3500 Quantum Mechanics I
- PHYS 4500 Quantum Mechanics II
- MATH 1210 Introductory Calculus I
- MATH 1211 Introductory Calculus II
- MATH 2311 Intermediate Calculus
- MATH 2301 Applied Linear Algebra
- MATH 2303 Differential Equations I
- Nine (9) additional credit hours of Science Electives* (not in the major subject area).

***Note:** Students should consult the Faculty of Science Program Requirement Tables available online for recommended Science Electives, and a suggested sequence of courses for years 1 and 2. Students should consult with the Undergraduate Coordinator or Science Advisor to determine the best sequence of courses for years 3 and 4.

Honours in Astrophysics – Requirements:

The requirements for the degree of Bachelor of Science with Honours apply as listed in this Academic Calendar under the heading of Faculty of Science, Bachelor of Science – Honours, Section Three. Students must secure a supervisor for the honour thesis (PHYS 4790) before applying to the honours program. The specific courses that make up the total seventy-five (75) credit hours required in the honours subject (specifically twenty-one (21) credit hours in Astronomy and fifty-four (54) credit hours in Physics) are included in the following list of required Science courses for the program:

- ASTR 1100 Introduction to Astrophysics
- ASTR 2100 Foundations of Astrophysics
- ASTR 2400 Physics of Stars
- ASTR 3400 Interstellar Matter and Stellar Evolution
- ASTR 3500 Galaxies and Cosmology
- ASTR 4200 Observational Astronomy
- ASTR 4600 High-Energy Astrophysics
- PHYS 1210 University Physics I
- PHYS 1211 University Physics II
- PHYS 1500 Introduction to Modern Physics
- PHYS 2300 Vibrations, Waves and Optics
- PHYS 2301 Analytical Mechanics
- PHYS 2400 Electricity and Magnetism
- PHYS 3200 Mathematical Methods in Physics I
- PHYS 3201 Mathematical Methods in Physics II
- PHYS 3300 Classical Mechanics
- PHYS 3350 Thermal Physics
- PHYS 3400 Electrodynamics
- PHYS 3500 Quantum Mechanics I
- PHYS 3600 Experimental Physics I

- Three (3) additional credit hours in PHYS at the 4000-level
- PHYS 4500 Quantum Mechanics II
- PHYS 4790 Research Thesis (6 credit hours)
- MATH 1210 Introductory Calculus I
- MATH 1211 Introductory Calculus II
- MATH 2311 Intermediate Calculus
- MATH 2301 Applied Linear Algebra
- MATH 2303 Differential Equations I
- Nine (9) additional credit hours of Science Electives* (not in the honours subject).

***Note:** Students should consult the Faculty of Science Program Requirement Tables available online for recommended Science Electives, and a suggested sequence of courses for years 1 and 2. Students should consult with the Undergraduate Coordinator or a Science Advisor to determine the best sequence of courses for years 3 and 4.

Minor in Astrophysics - Requirements

The requirements for a Minor in Astrophysics are the same as those listed for *Bachelor of Science – Major and Minor* in Section Three of this Academic Calendar. The following Science courses are required for the Astrophysics Minor. A total of thirty (30) credit hours in the minor subject are required, specifically twelve (12) credit hours in Astronomy and eighteen (18) in Physics as follows:

- ASTR 1100 Introduction to Astrophysics
- PHYS 1210 University Physics I
- PHYS 1211 University Physics II
- PHYS 1500 Introduction to Modern Physics
- ASTR 2100 Foundations of Astrophysics
- ASTR 2400 Physics of Stars
- PHYS 2300 Vibrations, Waves and Optics
- Three (3) credit hours in ASTR at the 3000 level
- Six (6) credit hours in PHYS at the 2000 or 3000 level.

Course Descriptions

The Department offers courses in astronomy, both undergraduate and graduate, to support its three degree programs in astronomy and astrophysics. Note that Astrophysics honours students are required to include at least one graduate level course in their program, and students should refer to the *Graduate Academic Calendar* for graduate course descriptions.

The Department also offers introductory astronomy courses for the non-specialist, including ASTR 1000, 1001, and 1010. Both ASTR 1000 and 1001 are suitable for science electives for all students, whereas ASTR 1010 is suitable for a science elective for non-science students only (but still may be taken as a general elective by science students).

1000 The Sky and Planets

3 credit hours

This course provides an introduction to the Solar System for non-science students with little background in science and mathematics. Topics include: the celestial sphere and the night sky, locating astronomical objects, motions and phases of the moon, timekeeping and the calendar, history of

astronomy, eclipses, telescopes and instruments, planets, asteroids, and comets. Homework consists of assignments and labs, some of which require the use of the Burke-Gaffney Observatory.

Classes 3 hrs. and lab/telescope observing 1 hr. per week

1001 Stars and Galaxies

3 credit hours

This course is an introduction to astronomy beyond the Solar System for non-science students with little background in science and mathematics. Topics include: the Sun as a star, stars and star clusters, stellar evolution, nebulae, the Milky Way, galaxies and galaxy clusters, quasars, active galaxies, cosmology. Homework consists of assignments and labs, some of which require the use of the Burke-Gaffney Observatory.

Classes 3 hrs. and lab/telescope observing 1 hr. per week

1010 Life in the Universe

3 credit hours

What are the astronomical, biological, and sociological perspectives on extraterrestrials? Students examine the different types of worlds in our universe; the diversity of life-forms already discovered in extreme environments here on Earth; and the search for biological and intelligent life on other worlds within and outside our own solar system.

Notes: This course is currently offered exclusively as a web-based course.

Please note that this course may not be used by B. Sc. Students to satisfy the requirement of a science elective under regulations 3.e., 6.e., 10.c., and 12.b. for B.Sc. degrees.

1100 Introduction to Astrophysics

3 credit hours

Prerequisites: PHYS 1210 [formerly PHYS 1100], and Nova Scotia grade 12 math pre-calculus, or equivalent.

This course provides a mathematics-based and physics-based introduction to general and solar system astronomy for science students and astrophysics majors. Topics include: the celestial sphere and the night sky, development of astronomy as a science, orbits planets, time measurement, eclipses, telescopes and astronomical instruments, and the solar system. Homework consists of assignments and labs, some of which require the use of the Burke-Gaffney Observatory.

Classes 3 hrs. and lab/telescope observing 1 hr. per week

2100 Foundations of Astrophysics

3 credit hours

Prerequisites: ASTR 1101; PHYS 1211 [formerly PHYS 1101]; MATH 1211

The emphasis of this first course in *astrophysics* is on directly observable quantities such as the positions and motions of stars and the light they emit. Topics include a review of the celestial sphere, time in astronomy, astronomical catalogues, the two-body problem, dynamics of star clusters, stellar spectra including emission and absorption lines, and the operation of telescopes. Students

are assigned observing projects and trained to use the Burke-Gaffney Observatory.

Classes 3 hrs. per week and telescope observing session

2400 Physics of Stars

3 credit hours

Prerequisite: ASTR 2100

One of the major scientific achievements of the 20th Century was the quantitative understanding of stars. This course reviews these advances including the use of binary stars to determine stellar properties, spectral classification and the Boltzmann and Saha equations, radiative transfer and stellar atmospheres, the equations of stellar structure, and the interiors of hydrogen burning stars such as the Sun.

3400 Interstellar Matter and Stellar Evolution

3 credit hours

Prerequisite: ASTR 2400

This course examines the nature of neutral and ionised interstellar clouds and the onset of star formation. Concepts introduced in ASTR 2400 are used to show how the initial mass of a “protostar” largely determines its place on the “main sequence” as a star, its internal structure and energy production, and the nature of its death, whether it be as a white dwarf, neutron star, or a black hole.

3500 Galaxies and Cosmology

3 credit hours

Prerequisite: ASTR 2400

This course deals with an extremely broad area of astrophysics covering seven or eight orders of magnitude in length scale. Topics include the kinematic properties of nearby stars, galactic rotation, spiral structure, and the formation of the Milky Way. Extragalactic topics include the classification of galaxies, galactic evolution and interaction, galaxy clusters, large scale structure of the universe, and modern cosmology including observational tests of various cosmological models.

3876-99 Directed Study in Astrophysics

3 credit hours

Prerequisite: Permission of the chairperson

4200 Observational Astronomy

3 credit hours

Prerequisite: ASTR 2400

The principles of modern ground-based and space-based observational astronomy is discussed. Emphasis is on data acquisition (from observations and archives) and analysis, and on the statistical treatment of data. As much as practical, the Burke-Gaffney Observatory is used for student projects.

Classes 3 hrs. per week and telescope observing session.

4600 High-Energy Astrophysics

3 credit hours

Prerequisite: ASTR 2400, PHYS 2400, PHYS 3300.

This course discusses the astrophysical processes that create high-energy photons (x-rays and gamma-rays) as well as the

emission created from very energetic electrons (synchrotron and inverse Compton). Topics include gas and radiative processes, high-energy detectors and telescopes, and astrophysical processes from the solar system to black holes and gamma-ray bursts responsible for high-energy emission.

Atlantic Canada Studies (ACST)

Program Coordinator	D. Leroux, Social Justice & Community Studies
Professors	M. Byers, Women's Studies J. Reid, History P. Twohig, Atlantic Canada Studies
Associate Professor	B. Brown, History, K. Kehoe, History, A. MacLeod, English
Adjunct Professor	R. Field, K. Mercer, C. Slumkoski, M. Walls

Atlantic Canada Studies is an interdisciplinary major, minor, honours, concentration, and certificate option in the Arts Faculty which has developed out of an increasing demand by students, faculty and the community generally, for a more organized study of this region.

Students who complete a major, minor, honours, concentration, or certificate in Atlantic Canada Studies will have helped to prepare themselves for a fuller and more meaningful participation in the life of Atlantic Canada, and will have acquired a useful background for careers in teaching, trade and industry, and the various bureaus of the provincial and federal civil services. Their attention is particularly drawn to the advantages, from a career point of view, of taking Atlantic Canada Studies as part of a double major or honours.

Students are required to choose their courses in consultation with a member of the Atlantic Canada Studies Committee, and are strongly urged to select one of its members to advise them for the duration of the program, and to provide the necessary liaison with the Committee.

Graduate Studies

For detailed information on the Master of Arts in Atlantic Canada Studies, refer to the *Graduate Academic Calendar*.

Major in Atlantic Canada Studies

To complete a major in Atlantic Canada Studies, a student must meet the usual University requirements for the Bachelor of Arts degree, and in particular, obtain forty-eight (48) credit hours from the courses listed below with a minimum GPA of 2.00 out of 4.3. At least 24 credit hours must be at the 2000 level or above.

- ACST 1000 Making Sense of Atlantic Canada
- a minimum of 3 credit hours in ACST 4000-level courses
- 18 credit hours from Group A below
- 24 credit hours from Group B below

Honours in Atlantic Canada Studies

To complete an honours program in Atlantic Canada Studies, a student must meet the usual University requirements for the Bachelor of Arts (Honours) degree, and in particular, obtain sixty (60) credit hours from the courses listed below with a minimum GPA of 3.00 out of 4.3. At least 48 credit hours must be at the 2000 level or above.

- ACST 1000 Making Sense of Atlantic Canada
- a minimum of 3 credit hours in ACST 4000-level courses
- ACST 4500 Honours Seminar
- 21 credit hours from Group A below
- 24 credit hours from Group B below
- 3 credit hours from either Group A or B

Concentration in Atlantic Canada Studies

To complete a concentration in Atlantic Canada Studies, a student must meet the usual University requirements for the Bachelor of Arts degree, and in particular, obtain twenty-four (24) credit hours from the courses listed below with a minimum GPA of 2.00 out of 4.3. At least 18 credit hours must be at the 2000 level or above.

- ACST 1000 Making Sense of Atlantic Canada
- a minimum of 3 credit hours in ACST 4000-level courses
- 18 credit hours from Group A below

Minor in Atlantic Canada Studies

To complete a minor in Atlantic Canada Studies, a student must obtain twenty-four (24) credit hours from the courses listed below with a minimum GPA of 2.00 out of 4.3. At least 12 credit hours must be at the 2000 level and above.

- ACST 1000 Making Sense of Atlantic Canada
- 12 credit hours from Group A below
- 9 credit hours from Group B

Certificate in Atlantic Canada Studies

The Certificate in Atlantic Canada Studies is designed to meet the needs of students who wish to develop a more nuanced understanding of the region. It will be attractive for students from within Atlantic Canada who wish to improve their knowledge of the local culture that shapes and surrounds them. As well, it provides a valuable educational option for international students travelling abroad who may wish to follow an intense, but carefully planned curriculum that combines a variety of different academic opportunities into a one-year program of study. By creating a classroom environment where local and international students share their different perspectives on the region, the certificate stimulates a useful exchange of

ideas and fully integrates the study of Atlantic Canada into a broader national and global analytical framework.

By striking this balance between courses that are tightly focused on the study of the region, and supplementary classes designed to provide a broader Canadian context, the certificate provides students with a more nuanced and comprehensive understanding of Atlantic Canada's historical, political, economic and cultural life, as well as the region's natural environment.

To complete the Certificate, students are required to complete the following twenty-four (24) credit hours.

- 15 credit hours from Group A below
- 9 credit hours from Group B below

Admission requirements for the Certificate in Atlantic Canada Studies

The Certificate in Atlantic Canada Studies requires a formal application for admission and the official approval of the Undergraduate Coordinator for Atlantic Canada Studies. Students applying for admission to the program must have completed thirty (30) credit hours of undergraduate study at an accredited university or must show a demonstrated interest in the field. Students majoring in Atlantic Canada Studies at Saint Mary's University are not eligible for this program.

Students admitted to the program must complete at least eighteen (18) credit hours at Saint Mary's University. The official approval of the Undergraduate Coordinator for Atlantic Canada Studies is required for credit hours completed at another institution to be included in the certificate program.

Group A

Atlantic Canada Studies

- ACST 1000 Making Sense of Atlantic Canada
- ACST/IRST 1203 Scottish Gaelic I
- ACST/IRST 1204 Scottish Gaelic II
- ACST 1207 Mi'kmaw Language – Introductory I
- ACST 1208 Mi'kmaw Language – Introductory II
- ACST 2311 Inheriting Atlantic Canada: The Cultural Past
- ACST 2313 Researching Atlantic Canada
- ACST/HIST 2341 Atlantic Provinces History, to Confederation
- ACST/HIST 2342 Atlantic Provinces History, from Confederation
- ACST/ENGL 2380 Literature of Atlantic Canada
- ACST 2400 Health and Social Policy in Atlantic Canada
- ACST 2826–2849 Selected Topics in Atlantic Canada Studies I
- ACST 3305 Atlantic Canada Film and Television
- ACST 3312 Living in Atlantic Canada
- ACST 3320 Gender in Atlantic Canada
- ACST 3321 African Nova Scotian Culture
- ACST/IRST 3325 The Irish and Atlantic Canada
- ACST/GEOG 3340 Geography of Nova Scotia
- ACST 3354 The Foreign Protestants and the Founding of Lunenburg
- ACST 3364 Nova Scotia in the Romantic Age, 1768 – 1836
- ACST/HIST 3470 The British Black Atlantic

- ACST 3826–3849 Selected Topics in Atlantic Canada Studies II
- ACST 4400 Health, Illness and Disease in Atlantic Canada
- ACST 4411 Atlantic Canada Seminar I
- ACST 4500 Honours Seminar
- ACST 4511 - 4512 Honours Seminar
- ACST 4543 Indigenous Peoples in Atlantic Canada: Contemporary Issues
- ACST/HIST 4565 Scottish Migration
- ACST 4632 Atlantic Canada Ecology and Resources
- ACST 4633 Reading the Landscapes of Atlantic Canada
- ACST 4876-4899 Directed Readings

Anthropology

- ANTH 2316 Indigenous Peoples of Canada
- ANTH 3379 The Archeology of Acadia
- ANTH 4466 Researching Halifax Heritage

Economics

- ECON 3324 The Atlantic Economy
- ECON 3325 Atlantic Economy Seminar

English

- ENGL 2461 Mi'kmaq Storytelling and Literature
- ENGL 4465 Indigenous Literature Seminar

Environmental Science

- ENVS 3310 Field Course in Environmental Science

Geography

- GEOG 3340 Geography of Nova Scotia
- GEOG 3454 Bay of Fundy: Environments and Issues

Geology

- GEOG 1202 Planet Earth: the Atlantic Canadian Perspective
- GEOG 1203 Earth History: Atlantic Canada Perspective
- GEOG 1208 Environmental Geology: Atlantic Canada

History

- HIST 2346 Black Heritage in Maritime Canada
- HIST 3470 The British Black Atlantic
- HIST 4501 Public History

Political Science

- POLI 2307 Provincial Government and Politics

Religious Studies

- RELS 4390 Religion and Society in Atlantic Canada

Group B

Atlantic Canada Studies

- ACST/IRST 2327 Scottish Gaelic – Intermediate
- ACST/IRST 2328 Scottish Gaelic – Intermediate II
- ACST 2471 History of Football
- ACST 2472 History of Hockey

Anthropology

- ANTH 2401 Anthropology of Work
- ANTH 3329 The Arctic Cultural Area
- ANTH 3377 Urban Anthropology
- ANTH 3378 Landscape Archeology
- ANTH/LING 3395 Language Issues in the Arctic

ANTH/LING 3396 Language Issues in Canada
ANTH 4462 Method and Theory in Historical Archeology

Criminology

CRIM 3508 Corporate Crime

Economics

ECON 3307 Money and Banking
ECON 3319 Public Finance
ECON 3322 Canadian Economic Issues
ECON 3340 Human Resource Economics
ECON /WMST 3349 Women and the Economy
ECON 3362 Natural Resource Economics
ECON 3363 Environmental Economics

English

ENGL 3343 Cultural Studies
ENGL 3344 Canadian Literature to 1920
ENGL 3345 Canadian Literature after 1920
ENGL 3367 Canlit: the 60s and 70s
ENGL 3437 Canadian Drama
ENGL 3471 Contemporary Canadian Fiction
ENGL 3472 Contemporary Canadian Poetry

Environmental Science

ENVS 4440 Environmental Policy

Finance

FINA 3364 Canadian Securities

French

FREN/LING 4440 Canadian French: Sociolinguistic Perspectives

Geography

GEOG 2310 Geography of Canada: Overview
GEOG 2315 The Oceans
GEOG 4434 Watershed Management
GEOG 4449 Tourist Geographies

History

HIST 1252 Canada to Confederation
HIST 1253 Canada: Confederation to the Present
HIST 1260 History of the Americas
HIST 3100 Canadian Women
HIST 3403 Invention of Canada
HIST 4527 Biography and History
HIST/IRST 4566 Irish Migration

Linguistics

LING/SOCI 2339 The Sociology of Language

Management

MGMT 3386 Industrial Relations
MGMT 4498 Small Business Consultancy

Political Science

POLI 1240 Politics and Business
POLI 2304 Canadian Politics in the 21st Century
POLI 3310 Government and the Media
POLI 3315 Canadian Foreign Policy
POLI 3450 Women and Canadian Politics

Religious Studies

RELS 1210 Introduction to Religion
RELS 1211 Introduction to Religious Experience
RELS 3354 Aboriginal Peoples, Religion, and the Justice System
RELS 3355 Religion and Social Issues in Canada
RELS 3358 Religious Diversity in Canada

Sociology

SOCI 3408 Urban Sociology: Introduction & History
SOCI/CRIM 4610 Practicum in Community Development

Course Descriptions

1000 Making Sense of Atlantic Canada

3 credit hours

This course provides an introduction to the Atlantic Provinces. It will examine specific content areas from multiple perspectives, including cultural industries, health and social services, environmental issues, economic development, and representations of the region. This course is intended as an introduction to Atlantic Canada Studies and to interdisciplinary inquiry.

1203 Scottish Gaelic - Introductory I [IRST 1203]

3 credit hours

This course gives the student an introduction to the structure and use of Scottish Gaelic in a Nova Scotia context. Topics covered include grammar and conversation basics, traditional and new Gaelic songs, and conversation aimed at specific social occasions and locations.

1204 Scottish Gaelic - Introductory II [IRST 1204]

3 credit hours

Prerequisite: ACST/IRST 1203.

This course gives the student a continuation of the introduction to the structure and use of Scottish Gaelic in a Nova Scotia context. Topics covered include grammar and conversation basics, traditional and new Gaelic songs, and conversation aimed at specific occasions and locations.

1207 Mi'kmaw Language – Introductory I

3 credit hours

Students are introduced to the Mi'kmaq language through a consideration of its relationship to the people and land of Mi'kmaki. Students will examine basic word structure, Mi'kmaq songs, and specific social conversations and greetings.

1208 Mi'kmaw Language – Introductory II

3 credit hours

Prerequisite: ACST 1207 or permission of the instructor

Students examine the place-based structure of the Mi'kmaq language.

2311 Inheriting Atlantic Canada: The Cultural Past [HIST 2311]

3 credit hours

Prerequisite: A minimum of twenty-four (24) university credit hours.

Ideas, attitudes, and assumptions about Atlantic Canada have been influenced by social, cultural, political, religious, and ethnic traditions inherited from the past. The curriculum of this course covers a wide range of topics from gender, refinement, material culture, dress, food, and conspicuous consumption, to political choices and ethnic biases. Lectures, readings, class discussions, and mixed media demonstrate how historical events and previous ways of behaving and thinking continue to influence social and cultural customs and decision-making.

2313 Researching Atlantic Canada

3 credit hours

Prerequisite: A minimum of twenty-four (24) credit hours.

There are many ways of interpreting the Atlantic Canadian experience. Individual disciplines (such as history, sociology, anthropology, economics, and biology) take different approaches, utilize different data, and present their research in different ways. All research, however, must be read with a critical eye. This course will expose students to a variety of ways of analyzing Atlantic Canada, focusing largely on qualitative research approaches and the human experience in the region.

2327 Scottish Gaelic - Intermediate I [IRST 2327]

3 credit hours

Prerequisite: IRST 1203 and 1204.

This course gives the student an opportunity to advance from the introductory level in a structured environment. Topics covered include a review of grammar and conversation basics. Time will be spent on composition of short stories, translation of written and recorded Gaelic, traditional and new Gaelic songs, and poetry and conversation aimed at specific social occasions and locations.

2328 Scottish Gaelic - Intermediate II [IRST 2328]

3 credit hours

Prerequisite: IRST 2327 or equivalent.

This course gives the student an opportunity to advance from the introductory level in a structured environment. Topics covered include a review of grammar and conversation basics. Time will be spent on composition of short stories, translation of written and recorded Gaelic, traditional and new Gaelic songs, and poetry and conversation aimed at specific social occasions and locations.

2341 Atlantic Provinces History, to Confederation [HIST 2341]

3 credit hours

Prerequisites: Six (6) credit hours in HIST or thirty (30) credits overall.

Commencing with the earliest Native-European contact in the Atlantic Provinces, students in this course will examine the interactions among the peoples who inhabited the region up until the mid-nineteenth century. Major events, such as wars, treaties, and Confederation will also be considered

2342 Atlantic Provinces History, from Confederation [HIST2342]

3 credit hours

Prerequisites: Six (6) credit hours in HIST or thirty (30) credits overall.

Beginning with the post-Confederation era, and then moving into the phases of industrialization and deindustrialization, students will study social, economic, and political developments in the region up to the end of the twentieth century and beyond. Major events such as the two World Wars will also be considered

2380 Literature of Atlantic Canada [ENGL 2380]

6 credit hours

An examination of the literature and literary background of Atlantic Canada. Emphasis in the first semester is on the 19th and early 20th centuries; in the second semester it is on contemporary writing.

2400 Health and Social Policy in Atlantic Canada

3 credit hours

This course is an exploration of the development of health and social policy in Atlantic Canada. The evolution of the welfare state, hospitals, training for health care workers, and contemporary health issues are examined.

2471 History of Football [HIST 2471]

3 credit hours

Students analytically examine the evolution of sports such as soccer, rugby, Australian and North American football from the nineteenth century onwards, commencing with the earliest forms of vernacular football. Australian and North American football from the nineteenth century onwards. Although the scope will be international, special attention will be paid to Atlantic Canada.

2472 History of Hockey [HIST 2472]

3 credit hours

Students analytically examine the evolution of sports such as shinty, hurling, field hockey, ice hockey, and sledge hockey from the nineteenth century onwards, commencing with the earliest forms of vernacular stick sports. Although the scope will be international, special attention will be paid to Atlantic Canada.

2826 –2849 Selected Topics in Atlantic Canada Studies I

3 credit hours

This semester course will provide the student with an opportunity to take courses on specific Atlantic Canada topics which do not fit in with the standard offerings of other departments of the University.

3305 Atlantic Canada Film and Television

3 credit hours

Students engage critically with texts (films and television shows) that tell stories about Atlantic Canada. They explore the ways the region and its citizens have been viewed historically as well as the contemporary visions of Atlantic Canada that circulate at the local, national, and transnational levels.

3311 Fisheries in Atlantic Canada

3 credit hours

A study of the relationship between the material basis and political economy of the Atlantic fisheries since 1945. Stress will be placed on the scientific facts underlying the fisheries, and in particular, the qualities and quantities in the marine ecosystem that support them. A detailed study will also be made on the methods of fisheries science which are the basis of fish stock assessments by government scientists. Roughly the last third of the course will examine the effects of the livelihood of fishermen, of government policies respecting the fisheries, and the regional, national and international political forces which are behind federal government fisheries regulations.

3312 Living in Atlantic Canada

3 credit hours

This course examines on-going societal issues facing Atlantic Canadians. In a seminar setting, student teams and weekly guest speakers from non-government organizations, engage students in lively presentations about the current challenges facing those living and working in this region. Topics include arts and culture, poverty and homelessness, women, youth, crime, addictions, and concerns faced by aboriginal, black, Muslim, and immigrant communities. The structure of this course provides students a unique learning environment.

NOTE: To maintain the structure of ACST 3312, it should be limited to 30 students, and as a 3000-level course not recommend to first year students.

3320 Gender in Atlantic Canada

3 credit hours

Prerequisite(s): Six (6) credit hours in ACST or permission

Issues related to gender in Atlantic Canada are examined, including the individual body, the family, the economy, and the state. The experiences of women, men, and those who do not identify with either category are considered. Topics may include the gendering of government policy, class and cross-cultural perspectives on gender, and the gendered nature of work through examples drawn from throughout Atlantic Canada.

3321 African Nova Scotian Culture

3 credit hours

This course provides a basic understanding of African Nova Scotian culture. It introduces students to the history and cultural heritage of African Nova Scotian communities, their experience of life today, and the various forms of artistic expression produced by the culture. It also offers insight into the problems and concerns of African Nova Scotian communities and their historical and cultural connections with the Black Diaspora.

3325 The Irish and Atlantic Canada [IRST 3325]

3 credit hours

Prerequisite: Thirty (30) credit hours and ACST 1000 or permission of instructor

This interdisciplinary course will offer a survey of the history and culture of people of Irish descent in the Atlantic Region. Topics will include Irish settlement in the Atlantic

Region, religion and politics, sectarian conflict, social status, community organizations and contemporary Irish identity in the Atlantic Region.

3340 Geography of Nova Scotia [GEOG 3340]

3 credit hours

Prerequisite: At least thirty (30) credit hours.

This course explores the geographical diversity of the province, with particular emphasis on interrelationships between physical and human patterns. A section on the physical environment is followed by a discussion of settlement, cultural patterns, and economic development. Current issues of resource development, industrial reorganization, environmental management, and land use planning are addressed.

3345 First Nations of the Atlantic Region

3 credit hours

Prerequisite: ACST1000 or permission of instructor

Students will examine indigenous peoples' experiences in the Atlantic region and their varied relations with imperial and Canadian institutions. While the focus is on the Mi'kmaq, Wolastoqiyik (Maliseet), and Passamaquoddy peoples, students will also explore the experiences of the Innu, Inuit, Métis, and other indigenous peoples of the region.

3354 The Foreign Protestants and the Founding of Lunenburg [HIST3354]

3 credit hours

Prerequisites: A minimum of Twenty-four (24) credit hours in ACST or HIST.

Students examine the history of the Foreign Protestants (Lunenburg Germans) in Nova Scotia from the founding of Lunenburg in 1753 to World War II. Topics include settlement history, material and cultural traditions, the persistence of their ethnic identity into the 20th century, their importance to 19th century fishing and shipbuilding, and the designation of "Old Town" Lunenburg as a UNESCO World Heritage site.

3364 Nova Scotia in the Romantic Age, 1768-1836 [HIST3364]

Students examine the Romantic Era in Nova Scotia using a methodology that is part historical, part documentary, and part conceptual. The historical focus is on Maritime explorers and scientists between 1768 and 1836. The documentary focus is on how their discoveries led to the "making" of Nova Scotia. The conceptual focus is the impact of science and exploration on Romantic Literature.

3376 Atlantic Canadian Film & TV

{SOCl 3376/CRIM 3376/WMST3376}

3 credit hours

3470 The British Black Atlantic [HIST 3470]

3 credit hours

The term the "Black Atlantic" has been used to describe the interconnected nature of Black communities in the Atlantic world. This course examines the British dimension of that

transatlantic experience. Among topics covered are: Britain's involvement in African slavery, the migration of Black Loyalists to Nova Scotia and Sierra Leone, and the nature of the Black community in the United Kingdom.

3791 Literatures of the Black Atlantic

3 credit hours

Prerequisite: ENGL 1205

Students examine transnational literatures from African, Caribbean, European and North American contexts with a focus on the multidirectional networks and the distinctive poetics of water that constitute the historical and literary formation of the black Atlantic. Writers examined may include; Olaudah, Equiano, Phillis Wheatley, Claude McKay, James Baldwin, Derek Walcott, Dionne Brand, Lawrence Hill, Bernardine Evaristo, and Caryl Phillips.

3826 - 49 Selected Topics in Atlantic Canada Studies II

3 credit hours

This semester course will provide the student with an opportunity to take courses on specific Atlantic Canada topics which do not fit in with the standard offerings of other departments of the University.

4400 Health, Illness and Disease in Atlantic Canada

3 credit hours

Prerequisite(s): ACST 1000 and Six (6) credit hours in ACST or permission of the instructor

This seminar is an examination of health and medicine in contemporary Atlantic Canada through an interdisciplinary perspective. Emphasis is placed on the organization of health services, health policy, the role of voluntary groups and agencies, and the experiences of health and illness in a regional context.

4411 Atlantic Canada Seminar I

3 credit hours

Prerequisite: A minimum of thirty (30) credit hours.

This course will provide an opportunity for students to integrate their knowledge of Atlantic Canada in an interdisciplinary fashion. Drawing upon the expertise of a number of guest speakers familiar with various aspects of Atlantic Provinces life, the course will deal with such topics as the Atlantic fishery, agriculture, industry and labour, business enterprise, regional protest and cultural ethnicity.

4500 Honours Seminar

6 credit hours

Prerequisite: A minimum of sixty (60) credit hours.

These courses will provide an opportunity for honours students to integrate their knowledge in an interdisciplinary fashion.

4511 - 4512 Honours Seminar

3 credit hours

Prerequisite: A minimum of sixty (60) credit hours.

These courses will provide an opportunity for honours students to integrate their knowledge in an interdisciplinary fashion.

4543 Indigenous Peoples in Atlantic Canada: Contemporary Issues

3 credit hours

Prerequisite: At least sixty (60) credit hours

In this seminar course students will examine contemporary issues facing First Nations and Inuit communities in Atlantic Canada. Students will be introduced to the challenges facing Indigenous Peoples in an age of increasing globalization, radical environmental change, and complex economic development, as they struggle to reassume self-government.

4565 Scottish Migration [HIST 4565]

3 credit hours

From the late eighteenth to the middle of the twentieth century, Scotland had one of the highest emigration rates in Europe. This seminar course will examine a wide range of literature that discusses Scottish migration to various overseas destinations in order to place the Scottish presence in Nova Scotia in historical context.

4631 Environmental History of Atlantic Canada

3 credit hours

Prerequisite: At least sixty (60) credit hours.

This interdisciplinary seminar course is an examination of the changing ways nature has been viewed and transformed in Atlantic Canada before and after European settlement, surveying environmental history up to the mid-20th century. Topics range from historic aboriginal resource use to colonial perceptions of nature and the early conservation movement.

4632 Atlantic Canada Ecology and Resources

3 credit hours

Prerequisite: At least sixty (60) credit hours.

Ecology provides the background for considering the many social, economic, political, and philosophical dimensions of environmental and resource use in Atlantic Canada today. In this interdisciplinary seminar course, students examine contemporary regional ecological concerns through the study of concepts such as environmentalism, sustainability, environmental governance, and ecological literacy.

4633 Reading the Landscapes of Atlantic Canada

3 credit hours

Prerequisite: At least sixty (60) credit hours.

Reading landscapes is an interdisciplinary investigation of the relationship between natural history, ecology, and human activity in a regional context. In this seminar course students examine the ecology and environment of Atlantic Canada by exploring a range of landscapes that include forests, marshlands, beaches, rivers, fields, and urban streets

4876 - 4899 Directed Readings

3 credit hours

Prerequisite: Permission of ACST Coordinator.

These courses provide opportunities to study a particular subject in detail. They will normally require a considerable amount of independent, though supervised, study.

Biology (BIOL)

Chairperson	S. Bjornson
Professors	C. Barber, S. Bjornson, Z. Dong, J. Lundholm, G. Sun, K. Vessey
Associate Professors	T. Frasier, R. Russell
Assistant Professors	A. Dalziel, L. Weir
Lecturer	D. Dansereau
Adjunct Professors	M. Agbeti, S. Basquill, H. Broders, T. Franz-Odendaal, K. Harper, G. Kernaghan, Y. Papadopoulos, M. Qaderi
Professor Emeritus	A. Rojo
Dean Emeritus	D. Richardson

Department website: www.smu.ca/academic/science/biology

The Department offers a concentration, major, honours, and minor in Biology. A double major or double honours in Biology and another science can be completed. Students may pursue a cooperative education option. See the Cooperative Education Office for details.

The Department trains graduate students through the M.Sc. and Ph.D. in Applied Science programs. Consult the *Graduate Academic Calendar* for details.

Major in Biology - Requirements:

The requirements for the degree of Bachelor of Science with Major in Biology apply as listed in this Academic Calendar under the heading of Faculty of Science, Bachelor of Science – Major, in Section Three. The specific list of required forty-five (45) credit hours in BIOL required to satisfy 6(d) is contained in the following list of Science courses required for the program

- BIOL 1201 Molecular and Cell Biology
- BIOL 1202 Organismal and Ecological Biology
- BIOL 2303 Plant Biology
- BIOL 2304 Animal Biology
- BIOL 2307 Genetics
- BIOL 2321 Cell Biology
- BIOL 2324 Ecology
- Twenty-four (24) additional credit hours of BIOL courses* at the 3000 and 4000-level, with at least nine (9) credit hours at each of the 3000 and 4000-levels.
- CHEM 1210 General Chemistry I
- CHEM 1211 or CHEM 1212 General Chemistry II (note specific MATH pre-requisites)
- CHEM 2346 (Students may substitute CHEM 2344 plus CHEM 2345 in lieu of CHEM 2346)
- Six (6) credit hours in MATH from: MATH 1210 and MATH 1211; or MATH 1250 and MATH 1251.
- Nine (9) additional credit hours of Science Electives not in the major subject

*Note: Up to six (6) credit hours of BIOL electives may be substituted with any of the following:

- ANTH 3471 Forensic Skeletal Identification
- ANTH 3472 Forensic Skeletal Analysis
- CHEM 3451 Introductory Biochemistry
- CHEM 4452 Biochemistry: Intermediary Metabolism

- PSYC 2350 Psychology Statistics (Group C)
- PSYC 4407 Introduction to Ethnology

Note that these courses cannot count simultaneously as Biology electives and “other Science electives” (Regulation 6e) or Arts electives (Regulation 6c) for the Bachelor of Science with major.

Students should consult the Faculty of Science Program Requirement Tables available online for recommended Science Electives, and a suggested sequence of courses for years 1 and 2. Students should consult with a Biology Program Advisor or a Science Advisor to chart their courses, and to determine the best sequence of courses for years 3 and 4.

Double Major in Biology and Other Science - Requirements:

- The requirements for the degree of Bachelor of Science with Double Major apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Double Major, in Section Three. The specific list of BIOL courses required to satisfy 7 (a) are the same as the major requirements above, except that they need only complete fifteen (15) credit hours of BIOL electives: six (6) credit hours at the 3000 level.
- six (6) credit hours at the 4000-level.
- and three (3) additional credit hours at the 3000 or 4000-levels.

Honours in Biology - Requirements:

The requirements for the degree of Bachelor of Science with Honours apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Honours, in Section Three. Students with a minimum CGPA of 3.00 are encouraged to apply for admission to the honours program. Students must secure a supervisor for the honours thesis (BIOL 4500) before applying to the honours program. The Department website lists the research interests of faculty. The specific list of BIOL courses used to satisfy the honours requirements 11 (a) is contained in the following list of requirements for the program:

- All requirements of the Major in Biology listed above
- BIOL 4549 Honours Seminar (6 credit hours)
- BIOL 4500 Honours Thesis (6 credit hours)
- BIOL 3308 Biostatistics
- Three (3) additional credit hours in BIOL at the 4000-level for a total of 30 credit hours of BIOL electives (including 3308) at the 3000 and 4000-level, with at least 12 credit hours at each of the 3000 and 4000-levels.
- Minimum DGPÁ of 3.00 (Faculty of Science regulation 13)

Double Honours in Biology and Other Science – Requirements:

The requirements for the degree of Bachelor of Science with Double Honours apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Double Honours, in Section Three. The specific list of BIOL courses required to satisfy 11 (d) includes those requirements for the Major plus the following:

- BIOL 4549 Honours Seminar (6 credit hours)
- BIOL 4500 Honours Thesis (6 credit hours)
- Minimum DGPÁ of 3.00 (Faculty of Science regulation 13)

Concentration in Biology - Requirements:

The requirements for the degree of Bachelor of Science – General - with Concentration apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – General (with a Concentration), in Section Three. The specific list of courses required to satisfy 3(d) are contained in the following list of required Science courses for the program:

- BIOL 1201 Molecular and Cell Biology
- BIOL 1202 Organismal and Ecological Biology
- BIOL 2303 Plant Biology
- BIOL 2304 Animal Biology
- BIOL 2307 Genetics
- BIOL 2321 Cell Biology
- BIOL 2324 Ecology
- Nine (9) additional credit hours of BIOL at the 3000-level or above
- CHEM 1210 General Chemistry I
- CHEM 1211 or CHEM 1212 General Chemistry II (note specific MATH pre-requisites).
- CHEM 2346 Organic Chemistry for Life Sciences *(Students may substitute CHEM 2344 and CHEM 2345 in lieu of CHEM 2346)
- Six (6) credit hours in MATH from: MATH 1210 and MATH 1211; or MATH 1250 and MATH 1251

Minor in Biology - Requirements:

The requirements for a Minor apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Major and Minor, in Section Three. The specific thirty (30) credit hours of BIOL courses required to satisfy 9(b) are the following:

:

- BIOL 1201 Molecular and Cell Biology
- BIOL 1202 Organismal and Ecological Biology
- BIOL 2303 Plant Biology
- BIOL 2304 Animal Biology
- BIOL 2307 Genetics
- BIOL 2321 Cell Biology
- BIOL 2324 Ecology
- Nine (9) additional credit hours in BIOL at the 3000-level or above.

Course Descriptions

Each of the following courses has a 3 hour per week lab component unless otherwise noted. Students must pass both the laboratory and the lecture components of a course to pass the course. A minimum grade of C is required in all biology courses applied to the student's Biology Program.

A minimum grade of C is required for all BIOL prerequisites for 2000, 3000 and 4000-level BIOL courses.

1201 Molecular and Cell Biology

3 credit hours

Prerequisite: Nova Scotia Grade 12 Biology or equivalent.

This course is an introduction to the principles of life at the cellular and molecular level. Major topics include the molecules that encode biological information, prokaryotic and eukaryotic cells, cell membranes and compartments, cell respiration, photosynthesis, transcription and translation, DNA replication and cell division, mutation, variation and inheritance.

1202 Organismal and Ecological Biology

3 credit hours

Prerequisite: Nova Scotia Grade 12 Biology or equivalent.

This course is an introduction to the study of the principles and organization of life, including anatomy, form and function, physiology, life history and ecology. Topics include the origins of eukaryotic and multicellular life, plant structure and function, plant growth and reproduction, diversity of plants, and animals, themes of animal physiology, evolution, and population ecology.

2303 Plant Biology (formerly BIOL 3303)

3 credit hours

Prerequisites: BIOL 1201 and BIOL 1202

This course is an introduction to plant biology, with emphasis on angiosperm plant structure, reproduction and development, basic mechanisms of photosynthesis and respiration, plant nutrition, and growth regulation. Land plants are also studied from an evolutionary perspective, spanning from the first appearance of plants on land to the major groups present today.

2304 Animal Biology (formerly BIOL 3304)

3 credit hours

Prerequisites: BIOL 1201 and BIOL 1202

Students are introduced to the taxonomic treatment of major animal phyla with reference to anatomy, function and ecological significance.

2307 Genetics

3 credit hours

Prerequisites: BIOL 1201 and BIOL 1202

This course is an introduction to the major topics in genetics. Emphasis is placed on how genes are passed from generation to generation and how genes interact with one another. Topics include the environment that determines phenotype, the

creation of genetic variation, mapping genes on chromosomes, and the practical application of this knowledge.

2321 Cell Biology

3 credit hours

Prerequisites: BIOL 1201 and BIOL 1202

This course is an introduction to the eukaryotic cell with emphasis on the chemical and genetic basis of cellular activities and the division of the cell into membrane-bound and biochemically specialized compartments. The plasma membrane, cytosol, nucleus, cytoskeleton, Golgi apparatus, mitochondrion, chloroplasts and endoplasmic reticulum are considered.

2324 Ecology

3 credit hours

Prerequisites: BIOL 1201 and BIOL 1202

Ecology is the study of interactions and relationships among organisms and their environment such as adaptations, competition and predation. Topics include the density, diversity and distribution of organisms, population dynamics, community relationships and structure, succession, and the flow of energy and matter through ecosystems.

3002 Entomology

3 credit hours

Prerequisite: BIOL 2304

This course is an introduction to the fascinating world of insects. The anatomy, physiology and taxonomy of this group are examined. Examination of insect specimens and recognition of the key features for identification is a focus.

3004 Principles of Physiology (formerly BIOL 2004)

3 credit hours

Prerequisite: BIOL 2321

Students examine basic definitions and principles of physiology at the molecular, cellular and tissue levels. Topics include the fundamentals of membrane structure and function, enzymes and enzyme kinetics, bioenergetics, signal transduction, feedback regulation, cell structure, function, and integration of neurons and skeletal muscles.

3007 Forensic DNA Typing [FRSC 3007] (formerly BIOL 4001 [FRSC 4001])

3 credit hours

Prerequisite: BIOL 2307

Students study all aspects of forensic DNA typing protocols and interpretation. Lectures focus on theory and laboratory sessions involve actual DNA typing, where students work with their own DNA. These skills are highly transferrable, and are applicable to the genetic analysis of populations in general.

3020 Comparative Vertebrate Anatomy

3 credit hours

Prerequisite: BIOL 2304

Students examine vertebrates, with consideration of structural modifications for particular life styles. A comparative and evolutionary approach is taken in lectures. Laboratory instruction involves dissection of representative animals.

3021 Integrative Vertebrate Physiology

3 credit hours

Prerequisites: BIOL 2304, BIOL 3004, and BIOL 3308

Students study vertebrate physiology and physiological adaptations. Topics include the integration of the eleven organ systems and how they interact to maintain homeostasis. The physiology of vertebrates is compared as it pertains to their specific environment or success of the individual.

3308 Biostatistics (formerly BIOL 2308)

3 credit hours

Prerequisite: Six (6) credit hours in BIOL at the 2000-level

Students are introduced to the methods of graphing and analyzing quantitative data in the biological sciences with emphasis on practical applications of statistics in biology. Topics include descriptive statistics, normal and non-normal distributions, probability, correlation, regression, tests of significance such as analysis of variance, and sampling methods.

NOTE: Students will not receive credit for both BIOL 3308 (formerly BIOL 2308) and any of MATH 1216, PSYC 2350, GEOG 3326, MGSC 2207, SOCI 3102, or CRIM 3102.

3328 Plant Taxonomy and Identification

3 credit hours

Prerequisite: BIOL 2303

This is a hands-on course on the identification of plants in important vegetation types in Nova Scotia. Students examine the principles of plant taxonomy, prepare plant specimens and differentiate habitat types. Topics include the ecology of plant adaptations to the local environment, and applied ecology and conservation biology of key habitat types.

3329 Systematics

3 credit hours

Prerequisite: BIOL 2324

Contemporary systematics includes the study of the diversity of species and their relationships through time. Students examine species characters and character analyses, International Codes of Nomenclature, protocols for describing new species, cladistics-based phylogenetics and molecular sequence analyses, biological classification, and the importance of assessing evolutionary relationships between taxa.

3332 Ecosystems (formerly BIOL 4331)

3 credit hours

Prerequisite: BIOL 2324

Students are introduced to ecosystem ecology by examining ecosystem patterns and processes. Topics include biological hierarchy, energy and material flow through systems, ecosystem structure and food web analysis, ecosystem

assembly/succession, stability and resiliency, and successional reversal and ecosystem responses to stress. “Ecosystem Health”, “New Ecology” and the ecosystem-based “UN Millennium Assessment” are examined.

3398 Microbiology

3 credit hours

Prerequisite: BIOL 2321

This course is an introduction to the world of microorganisms, the means by which they are studied, and their role in human disease. Topics may include: the origin and discovery of microbial life, structure and function of prokaryotic cells, cell growth and development, and the role of bacteria, fungi, viruses and protozoa with respect to the development of human disease.

3402 Population Genetics

3 credit hours

Prerequisite: BIOL 2307

Population genetics is the integration of mathematics with population biology, genetics, and evolution and allows researchers to quantitatively infer what is going on within and among populations based on genetic data. Students focus on developing a basic understanding of the main principles of population genetics and their application to real-world problems.

3419 Molecular Biology (formerly BIOL 4419)

3 credit hours

Prerequisites: BIOL 2307, BIOL 2321, and either CHEM 2345 or CHEM 2346

Students are introduced to the chemistry of genes, DNA, RNA, and protein structure. Topics include transcription, translation, the replication of DNA and RNA, and the organization of genes and genomes. Students will also learn basic molecular techniques.

3421 Plants and People

3 credit hours

Prerequisite: BIOL 2303

This course is an introduction to the study of plants used by people, their origin, domestication, botany, cultivation, harvesting, uses, diseases, breeding, and their role in the modern world economy. Plants and plant products of industrial importance, medicinal plants, food plants, psychoactive plants, and food additives are examined.

3423 Evolution (formerly BIOL 2423)

3 credit hours

Prerequisite: BIOL 2324

Students are exposed to evolution and the importance of evolutionary thinking in biology. Topics include evolutionary theory, how evolutionary processes have resulted in the diversity of life today, and how evolutionary thinking can inform their daily lives.

3434 Communication and Defense in Biological Systems (formerly BIOL 4434)

3 credit hours

Prerequisites: BIOL 2303 and BIOL 2304

This course explores the ecological interrelationships between plants and animals and the ways in which they use chemicals to communicate, attract mates, and protect themselves from predators. Topics include the chemical and morphological adaptations of insect defense, plant toxins and their effects on animals, insect and animal venoms, plant and fungal hallucinogens, hormonal and chemical interactions between plants and animals, animal pheromones, and plant allelopathy and its ecological importance.

4003 Molecular Ecology

3 credit hours

Prerequisites: BIOL 3402 and BIOL 3419

Molecular ecology is the use of molecular techniques to provide insight into genetics, ecology, behaviour, and evolution. Students are provided with a broad overview of molecular biology and will also focus on advanced topics and theory, building on topics from population genetics.

Three hours per week.

4004 Advanced Biostatistics

3 credit hours

Prerequisites: BIOL 3308 or PSYC 2350

This course provides students with the basic tools to design and conduct biological experiments. Topics include analysis of variance, regression, multivariate analysis, nonparametric methods, and model selection.

4006 Plant-microbe Interactions

3 credit hours

Prerequisite: BIOL 3398

Students examine a variety of important plant microbial relationships that exist between plants and microbes such as viruses, bacteria, fungi and protists. These relationships include mutualistic, symbiotic and pathogenic interactions.

4007 Bioinformatics and Genomics

3 credit hours

Prerequisites: BIOL 3419

Students are introduced to the fields of bioinformatics and genomics, including genomics technologies, bioinformatics technologies and their use in analysis and interpretation of genomics data. The focus of this course is to provide practical descriptions of the topics, tools and current trends instead of the theoretical and computational aspects of the field.

4010 Biology of Cancer

3 credit hours

Prerequisites: BIOL 3004 and BIOL 3419

Students study current models of the nature of cancer and how cancer arises in a multicellular body. Topics include the molecular mechanisms that control normal growth and development, including oncogenes, tumor suppressors, the

cell cycle, cell death, and cell communication. Students explore how molecular mechanisms act inappropriately in cancer cells, and how this knowledge influences anti-cancer therapies.

4404 Behavioural Ecology

3 credit hours

Prerequisites: BIOL 2324; and one of BIOL 3308 or PSYC 2350 or MATH 1216

Behavioural Ecology is the examination of how animals interact in their environment with emphasis on the adaptive value of behaviour. Topics include the life-history trade-offs, foraging theory, predation, competition, game theory, natural and sexual selection, mating systems, parental care, and communication. Independent research is conducted in labs.

Note: Students cannot receive credit for both BIOL 4404 and PSYC 4407.

4408 Animal Developmental Biology

3 credit hours

Prerequisites: BIOL 3004 and BIOL 3419

The fundamental question of development is how differences arise between cells and tissues in the embryo. Students explore the major events leading to the formation of the embryo, and examine how various experimental manipulations help to define the mechanisms involved in generating different cell types and embryonic structures.

4409 Mammalogy

3 credit hours

Prerequisite: BIOL3020

The focus of this course is on the classification, anatomy, physiology, ecology, conservation biology and evolutionary relationships of mammals. Emphasis is on mammals of Nova Scotia.

4410 Plant Ecology

3 credit hours

Prerequisite: BIOL 3328

Students focus on plant populations and communities by exploring species composition, diversity, and interactions in field or laboratory projects.

4411 Medical and Veterinary Parasitology

3 credit hours

Prerequisite: BIOL 2304 and BIOL 3398

Students study animal parasites of humans and domesticated animals. The taxonomy, life cycle and epidemiology of protists and helminths are emphasized. Laboratory work involves microscopic diagnostics of the important parasite species.

4416 Fungal Biology (formerly BIOL 3416)

3 credit hours

Prerequisite: BIOL 2324 and BIOL 3398

This course is an introduction to the fungi and related microorganisms. Students study the morphology of representatives from each of the major taxonomic groups.

4417 Fungal Morphology and Ecology

Prerequisite: BIOL 4416

The uniqueness of fungal ultrastructure, physiology and genetics is examined. The many important ecological roles that fungi fill and their impact on humans are explored.

4422 Conservation Biology

3 credit hours

Prerequisites: BIOL 3308 and BIOL 3423

This course introduces students to how the principles of evolutionary-ecology can be applied to help us understand how human exploitation of natural resources affects biodiversity. Students characterize biodiversity and explore topics such as the biology of small populations, conservation genetics, ecological economics, and landscape ecology. In the lab students explore current topics in conservation biology through critiques, population modeling and independent research.

4424 Diversity and Ecology of Fishes (formerly BIOL 3424)

3 credit hours

Prerequisite: BIOL 3020 and BIOL 3308

This course is a study of the ecology of fishes, their classification, life history and global distribution. The laboratory portion of the course emphasizes study of representatives of world taxa and the fishes of Nova Scotia.

4428 Applied Entomology

Prerequisite: BIOL 3002

Insect ecology and the relationship of insects to humans are explored. Topics may include the identification of insect pest species and their impact on human activities, morphological and behavioural modifications for specific ecological roles, population dynamics, the history and use of chemical insecticides, the use of insects as natural and biological control agents and integrated pest management.

4430 Ornithology

3 credit hours

Prerequisite: BIOL 3020

Ornithology is the study of birds. Students examine the evolutionary history of birds, adaptations they have made for flight and for their particular niche, their behaviour, breeding systems and conservation. Nova Scotian species are identified through sight and song..

4431 Herpetology

3 credit hours

Prerequisite: BIOL 3020

Herpetology is the study of amphibians and reptiles. Topics include ecology, natural history, form and function of amphibians and reptiles with emphasis on Nova Scotia herpetofauna.

4432 Medical and Veterinary Entomology

3 credit hours

Prerequisite: BIOL 3002

This course presents an introduction to the biology of insects and arthropods that cause disease in humans and domestic animals. Topics include the biology and behaviour of disease vectors and external parasites, the role of vectors in the transmission of disease organisms, life cycles of vector borne pathogens, and the mechanisms of vector and disease control.

4433 Ecotoxicology

3 credit hours

Prerequisites: BIOL 3332 and CHEM 1212

Ecotoxicology is the study of anthropogenic contaminants in the natural environment. This course provides an introduction to the study of the fate and effects of toxic chemicals on the structure and function of ecological systems.

4448 Biology Field Course

3 credit hours

Prerequisites: BIOL 3329 and one of BIOL 3308, PSYC 2350 or MATH 1216

The design and practice of biological study of communities under field conditions at selected sites in Nova Scotia. The main emphasis is on how ecologists document the abundance of organisms and quantify the structure of a community.

Note: Enrolment in this course is limited. Normally this course is held over 10-12 consecutive days and nights at an off-campus site.

4451 Ecology in the Tropics

3 credit hours

Prerequisites: BIOL 3329, and one of BIOL 3308, PSYC 2350 or MATH 1216 and application to the Department.

This course provides students with an opportunity to study in a field trip to a tropical location where students are able to immerse themselves in a tropical environment. Prior to departure students present and attend seminars on subjects

pertinent to the ecology of the tropical field site to be visited. Students design a research project on some aspect of tropical ecology prior to departure to the tropical site, collect data for the project while in the tropics and write a report on the research upon return to Saint Mary's University.

Note: Students are responsible for travel and living costs associated with the course, as well as tuition. Enrolment is limited and admission is by application to the Biology Department. Contact the Biology Chairperson for details. This course occurs over a period of 10-12 days and nights at an off-campus location.

4500 Research Thesis

6 credit hours

Prerequisite: BIOL 3308 and honours standing.

Students complete a research project carried out by the student under the supervision of a member of the Department. The student will submit a thesis and present it orally.

Lab 6 hrs. per week. Two semesters.

4549 Honours Seminar

6 credit hours

Prerequisite: honours standing.

Seminars followed by discussions based on recent advances in biology. In consultation with the honours advisor, the honours students will select and prepare the topics for presentation to biology faculty and students.

4876 - 4899 Directed Study in Biology

3 credit hours

Prerequisite: Permission of instructor on a directed studies form available from the Biology Chairperson.

These courses are intended to supplement the course offerings in biology and allow students to delve deeper into a subject of particular interest to them. Students must show some initiative and be willing to work independently.

Chemistry (CHEM)

Chairperson	R. Singer
Professors	J. Clyburne cross appointed with ENVS), J. Masuda, R. Singer
Associate Professors	C. Brosseau (Canada Research Chair [Tier II] in Sustainable Chemistry and Materials), M. Lamoureux, C. Pye, K. Singfield
Assistant Professors	C. Sit, D. Tokarz, K. Ylijoki
Lecturer	M. Sheppard
Adjunct Professors	D. Gamble, J. MacNeil, C. Matta, A. Piorko, I. Pottie
Professor Emeritus	J. Young

Department website:
www.smu.ca/academic/science/chemist/

The program offerings of the Department of Chemistry are designed to meet two main objectives:

- to provide a rigorous core education in the theory and practice of chemistry for students pursuing a Bachelor of Science degree with Honours, Major, Minor, or Concentration in Chemistry;
- to provide students in other disciplines an introduction to the principles and practices of this central science, contributing to their fundamental understanding and appreciation of the physical world.

Our Bachelor of Science with Major in Chemistry and Bachelor of Science with Honours in Chemistry degrees are **nationally accredited programs by the Canadian Society for Chemistry (CSC) governing board**, ensuring that the program has the potential to prepare graduates to practice their profession in a competent scientific manner. Honours graduates from the program are well prepared to continue their education at the graduate level in related fields of study. Majors graduates are also well equipped to further their education or to enter into the scientific work force, contributing to such areas as research, education, government, and industry at various levels of responsibility.

In addition to having a strong commitment to teaching, the Chemistry Department Faculty members are committed to engaging undergraduate students in their research activities. Opportunities exist for motivated and capable students to enrich their program by contributing to the research work and dissemination of research results through employment as research assistants and participation in research conferences.

Major in Chemistry - Requirements:

The requirements for the degree of Bachelor of Science with Major apply as listed in this Academic Calendar under the heading of Faculty of Science, Bachelor of Science – Major, in Section Three. The specific list of forty-five (45) credit hours of CHEM courses required to satisfy 6 (d) is contained in the following list of Science courses required for the program:

- CHEM 1210 General Chemistry I
- Three (3) credit hours from: CHEM 1211, 1212 or 1213 General Chemistry II

- CHEM 2312 Physical Chemistry I
- CHEM 2313 Physical Chemistry II
- CHEM 2332 Introductory Analytical Chemistry: Wet Methods
- CHEM 2333 Introductory Analytical Chemistry: Electrochemistry and Spectroscopy
- CHEM 2344 Organic Chemistry I
- CHEM 2345 Organic Chemistry II
- CHEM 2322 Inorganic Chemistry I
- CHEM 3424 Inorganic Chemistry II
- Three (3) credit hours from: CHEM 3451 Introductory Biochemistry, or CHEM 4452 Biochemistry: Intermediary Metabolism
- Twelve (12) credit hours in CHEM at the 3400 level or above;
- MATH 1210 and MATH 1211;
- MATH 1216 or three (3) credit hours in MATH or CSCI at the 2000-level or above.
- PHYS 1210 and PHYS 1211
- Nine (9) credit hours in Science Electives (not in CHEM)

*Note: Students should consult the Faculty of Science Program Requirement Tables available online for recommended Science Electives, and a suggested sequence of courses for years 1 and 2. Students should consult with the Chemistry Chairperson or a Science Advisor to determine the best sequence of courses for years 3 and 4.

Double Major in Chemistry and Other Science - Requirements:

The requirements for the degree of Bachelor of Science with Double Major apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Double Major, in Section Three. The specific list of thirty-six (36) credit hours of CHEM required to satisfy 7(a) are contained in the following list of required Science courses for the program:

- CHEM 1210 General Chemistry I
- Three (3) credit hours from: CHEM 1211, 1212 or 1213 General Chemistry II
- CHEM 2312 Physical Chemistry I
- CHEM 2313 Physical Chemistry II
- CHEM 2344 Organic Chemistry I
- CHEM 2345 Organic Chemistry II
- Six (6) credit hours from the following:
 - CHEM 2332 Introductory Analytical Chemistry: Wet Methods
 - CHEM 2333 Introductory Analytical Chemistry: Electrochemistry and Spectroscopy
 - CHEM 2322 Inorganic Chemistry I
 - CHEM 3424 Inorganic Chemistry II
- CHEM 3451 Introductory Biochemistry
- Nine (9) credit hours in CHEM at the 3400-level or above
- MATH 1210 and MATH 1211

- MATH 1216 or three (3) credit hours in MATH or CSCI at the 2000 level or higher.
- PHYS 1210
- PHYS 1211

Honours in Chemistry – Requirements:

The requirements for the degree of Bachelor of Science with Honours apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Honours and Double Honours, in Section Three. Students must secure a supervisor for the Honours thesis (CHEM 4500) before applying to the Honours program. The specific list of sixty (60) credit hours of CHEM courses required to satisfy the honours requirements 11 (a) is contained in the following list of required Science courses for the program:

- CHEM 1210 General Chemistry I
- CHEM 1211 General Chemistry II for Physical Sciences or 1212 General Chemistry II for Life Sciences or 1213 General Chemistry II for Engineers
- CHEM 2312 Physical Chemistry I
- CHEM 2313 Physical Chemistry II
- CHEM 2332 Introductory Analytical Chemistry: Wet Methods
- CHEM 2333 Introductory Analytical Chemistry: Electrochemistry and Spectroscopy
- CHEM 2344 Organic Chemistry I
- CHEM 2345 Organic Chemistry II
- CHEM 2322 Inorganic Chemistry I
- CHEM 3424 Inorganic Chemistry II
- Three (3) credit hours from:
 - CHEM 3432 Instrumental Analysis I
 - CHEM 4433 Instrumental Analysis II
- Three (3) credit hours from:
 - CHEM 3443 Organic Reaction Mechanisms
 - CHEM 4444 Synthesis in Organic Chemistry
- Three (3) credit hours from:
 - CHEM 3445 Organic Spectroscopy
 - CHEM 4421 Organometallic Chemistry
 - CHEM 4422 Advanced Topics in Inorganic Chemistry
- Three (3) credit hours from:
 - CHEM 3415 Polymers
 - CHEM 4412 Quantum Chemistry
 - CHEM 4413 Physical Chemistry III
 - CHEM 4414 Symmetry & Chemical Appl. of Group Theory
- Three (3) credit hours from:
 - CHEM 3451 Introductory Biochemistry
 - CHEM 4452 Biochemistry: Intermediary Metabolism
- CHEM 4499 Selected Research Topics in Chemistry
- CHEM 4500 Research Thesis
- Six (6) additional credit hours in CHEM at the 3400 level or above
- MATH 1210
- MATH 1211
- MATH 2311
- One of: MATH 2301, 2303, or 2315
- PHYS 1210
- PHYS 1211

Double Honours in Chemistry and Other Science - Requirements:

The requirements for the degree of Bachelor of Science with Double Honours apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Honours and Double Honours in Section Three. The specific list of Chemistry courses which satisfies the required minimum forty-eight (48) credit hours in Chemistry (if thesis completed in Chemistry) or the required minimum of forty-two (42) credit hours in Chemistry (if thesis completed in another science) is as follows:

- CHEM 1210 General Chemistry I
- CHEM 1211 General Chemistry II for Physical Science , or CHEM 1212 General Chemistry II for Life Sciences or CHEM 1213 General Chemistry II for Engineers
- CHEM 2312 Physical Chemistry I
- CHEM 2313 Physical Chemistry II
- CHEM 2344 Organic Chemistry I
- CHEM 2345 Organic Chemistry II
- CHEM 2332 Introductory Analytical Chemistry: Wet Methods
- CHEM 2333 Introductory Analytical Chemistry: Electrochemistry and Spectroscopy
- CHEM 2322 Inorganic Chemistry I
- CHEM 3424 Inorganic Chemistry II
- Nine (9) credit hours in CHEM from three of the groupings below:
 - Three (3) credit hours from:
 - CHEM 3432 Instrumental Analysis I
 - CHEM 4433 Instrumental Analysis II
 - Three (3) credit hours from:
 - CHEM 3443 Organic Reaction Mechanisms
 - CHEM 4444 Synthesis in Organic Chemistry
 - Three (3) credit hours from:
 - CHEM 3445 Organic Spectroscopy
 - CHEM 4421 Organometallic Chemistry
 - CHEM 4422 Advanced Topics in Inorganic Chemistry
 - Three (3) credit hours from:
 - CHEM 3415 Polymers
 - CHEM 4412 Quantum Chemistry
 - CHEM 4413 Physical Chemistry III
 - CHEM 4414 Symmetry & Chemical Appl. of Group Theory
 - Three (3) credit hours from:
 - CHEM 3451 Introductory Biochemistry
 - CHEM 4452 Biochemistry: Intermediary Metabolism
- CHEM 4499 Selected Research Topics In Chemistry
- CHEM 4500 Research Thesis (ONLY if thesis is in CHEM)
- MATH 1210
- MATH 1211
- MATH 2311
- One of: MATH 2301, 2303, or 2315
- PHYS 1210
- PHYS 1211

Honours in Chemistry and Major in Other Science - Requirements:

The requirements for the degree of Bachelor of Science with Honours in Chemistry and Major in another science apply as listed in this *Academic Calendar* under the heading of

Faculty of Science, Bachelor of Science – Honours and Major Program in Section Three. The specific list of Chemistry courses which satisfies the required minimum forty-eight (48) credit hours in Chemistry is the same as that listed above for the Double Honours, thesis completed in Chemistry.

Concentration in Chemistry – Requirements:

The requirements for the degree of Bachelor of Science General with Concentration in Chemistry apply as listed in this Academic Calendar under the heading of Faculty of Science, Bachelor of Science – General (with a Concentration) in Section Three. The specific list of thirty (30) credit hours in CHEM courses required to satisfy 9 (b) is as follows:

- CHEM 1210 General Chemistry I
- Three (3) credit hours from: CHEM 1211, 1212 or 1213 General Chemistry II
- Twelve (12) credit hours from the following:
 - CHEM 2312 Physical Chemistry I
 - CHEM 2313 Physical Chemistry II
 - CHEM 2332 Introductory Analytical Chemistry: Wet Methods
 - CHEM 2333 Introductory Analytical Chemistry: Electrochemistry and Spectroscopy
 - CHEM 2344 Organic Chemistry I
 - CHEM 2345 Organic Chemistry II
 - CHEM 2322 Inorganic Chemistry I
 - CHEM 3424 Inorganic Chemistry II
- Twelve (12) credit hours in CHEM at the 3400 level or above

Minor in Chemistry – Requirements:

The requirements for a Minor in Chemistry apply as listed in this *Academic Calendar* in the Faculty of Science pages under the heading of Bachelor of Science – Major and Minor in Section Three. The specific list of thirty (30) credit hours in CHEM courses required to satisfy 9 (b) is as follows:

- CHEM 1210 General Chemistry I
- Three (3) credit hours from: CHEM 1211, 1212 or 1213
- Twenty-four (24) credit hours from the following:
 - CHEM 2100 Green Chemistry
 - CHEM 2312 Physical Chemistry I
 - CHEM 2313 Physical Chemistry II
 - CHEM 2332 Introductory Analytical Chemistry: Wet Methods
 - CHEM 2333 Introductory Analytical Chemistry: Electrochemistry and Spectroscopy
 - CHEM 2344 Organic Chemistry I
 - CHEM 2345 Organic Chemistry II
 - CHEM 2346 Organic Chemistry for Life Sciences
 - CHEM 2373 Environmental Chemistry I
 - CHEM 2322 Inorganic Chemistry I
 - CHEM 3424 Inorganic Chemistry II

SPECIAL NOTE

Students must achieve a passing grade in the lab component of a chemistry course in order to be eligible to receive credit for the course. All of the Chemistry courses listed on these pages have a 3-hour per week lab period except the following courses: CHEM 1190, CHEM 1221, CHEM 2100, CHEM 3473, CHEM 4499 AND CHEM 4500.

Graduate-Level Courses

The Department offers instruction in Chemistry at the graduate level. For details on graduate courses, see the *Graduate Academic Calendar*.

Course Descriptions

1190 Fundamental Chemistry

3 credit hours

Prerequisite: Nova Scotia Grade 11 Chemistry or equivalent

The intent of this course is to develop fundamental conceptual understanding in chemistry, and associated problem-solving skills, essential for subsequent study in the subject.

Note: Students may not receive credit for CHEM 1190 following successful completion of CHEM 1210 or any higher-level CHEM courses. This course may not be taken concurrently with any other CHEM course.

1210 General Chemistry I

3 credit hours

Prerequisite: Nova Scotia Grade 12 Chemistry and Nova Scotia Grade 12 Mathematics or equivalent

An introduction to general topics in chemistry including composition and properties of matter, reaction stoichiometry, chemical reactions, atomic structure, the periodic table, chemical bonding, molecular geometry and gases. The course is intended for students interested in the physical sciences, life sciences and for students in the engineering program.

1211 General Chemistry II for Physical Sciences

3 credit hours

Prerequisite: CHEM 1210 and MATH 1210 (which may be taken concurrently)

A continuation of the introduction to general topics in chemistry including chemical equilibrium and applications to aqueous systems, physical equilibrium, thermodynamics, reaction kinetics, molecular structure, electrochemistry and organic chemistry. Emphasis is placed on applications to the physical sciences, including chemistry, geology and physics.

Note: This course is intended for students in the physical sciences.

Note: Credit is only given for one of CHEM 1211, 1212, or 1213.

1212 General Chemistry II for Life Sciences

3 credit hours

Prerequisite: CHEM 1210; and three (3) credit hours in CSCI or MATH (except MATH 1202 and MATH 1203) (which can be taken concurrently)

A continuation of the introduction to general topics in chemistry including chemical equilibrium and applications to aqueous systems, physical equilibrium, thermodynamics, reaction kinetics, molecular structure, electrochemistry and

organic chemistry. Emphasis is placed on applications to the life sciences, including biology.

Note: This course is intended for students in the life sciences. This course satisfies the requirement for the Chemistry Major or Honours only if MATH 1210/1211 is completed successfully

Note: Credit is only given for one of CHEM 1211, 1212, or 1213.

1213 General Chemistry II for Engineering

3 credit hours

Prerequisite: CHEM 1210; and MATH 1210 (which may be taken concurrently)

A continuation of the introduction to general topics in chemistry including chemical equilibrium and applications to aqueous systems, physical equilibrium, thermodynamics, reaction kinetics, molecular structure, electrochemistry and organic chemistry. Emphasis is placed on applications to the related field of engineering.

Note: This course is intended for students in the engineering program.

Note: Credit is only given for one of CHEM 1211, 1212, or 1213

1221 Chemicals

3 credit hours

This course is an introduction to the chemistry of everyday life for non-science major students who have an interest in improving their scientific literacy and understanding of the world around them. Theory is presented on a need-to-know basis as real-world subjects ranging from the chemistry of global warming to designer drugs are encountered.

Note: There is no lab component for this course.

Note: This course may not be used to satisfy the requirement of a science elective under regulations 3.e., 6.e., 10.c., and 12.b. for B.Sc. degrees.

2100 Green Chemistry [ENVS 2100]

3 credit hours

Prerequisite: CHEM 1211 or CHEM 1212 or CHEM 1213

Green chemistry, or environmentally benign chemistry, is the design of chemical products and processes that reduce or eliminate the use and generation of hazardous substances. This course will examine the chemical principles and processes in the development of technology and in the effects that this technology has on the environment. The course will avoid traditional approaches that only consider the treatment of pollution after it was created, and will focus on alternative routes that limit the production of waste.

Note: There is no lab component for this course

2312 Physical Chemistry I

3 credit hours

Prerequisite: CHEM 1211, 1212 or 1213, and MATH 1211

In this introduction to Physical Chemistry, a study of the underlying physical principles that govern the properties and behaviour of chemical systems from a *macroscopic* viewpoint will be undertaken. Topics covered will include: Laws of Thermodynamics; Temperature; Work, Heat, Enthalpy; Entropy; Carnot Cycle; Free Energy, Colligative Properties of Solutions; Phase Equilibrium; Phase Diagrams of Pure Substances and Simple Mixtures; Chemical Potentials and Chemical Equilibrium.

2313 Physical Chemistry II

3 credit hours

Prerequisite: CHEM 1211 or 1212 or 1213, and MATH 1211

In this second course in Physical Chemistry, the focus is on processes by which change occurs in chemical systems and the rates of these changes. The first part of the course examines molecular motion in gases and liquids and the mobility of ions in solution. In the second part, the focus is on the branch of Physical Chemistry called Kinetics. The rates and mechanisms of simple and complex chemical reactions will be examined, including polymerization and reactions at surfaces. Topics may include catalysis and kinetics of crystallization.

2322 Inorganic Chemistry I

3 credit hours

Prerequisite: CHEM 1211 or 1212 or 1213

This course will examine the structure and bonding of the main group elements. Topics covered will include electronic structure of atoms, bonding theories, ionic solids, and an introduction to point group symmetry and group theory; descriptive chemistry of the main group elements and their compounds.

2332 Introductory Analytical Chemistry: Wet Methods

3 credit hours

Prerequisite: CHEM 1211 or 1212 or 1213

An integrated lecture-laboratory course with emphasis on basic analytical methods. The practical application of analytical methods will be stressed by analyzing geological and environmental samples. Lecture topics will include treatment of data, theory of gravimetric and titrimetric analyses and chemical equilibria.

2333 Introductory Analytical Chemistry: Electrochemistry and Spectroscopy

3 credit hours

Prerequisite: CHEM 2332

An integrated lecture-laboratory course with emphasis on basic analytical methods. The practical application of analytical methods will be stressed by analyzing geological and environmental samples. Lecture topics will include a thorough introduction to electrochemistry, spectroscopy, chromatography and extractions. Topics include redox titrations, potentiometry, voltammetry, and atomic and molecular spectroscopy. Aspects of quality assurance and quality control in the analytical laboratory setting will also be discussed.

2344 Organic Chemistry I

3 credit hours

Prerequisite: CHEM 1211 or 1212 or 1213

An introduction to organic chemistry designed for all students in life science, physical science, general science, engineering or non-science. Topics covered include the structure, nomenclature, physical properties, synthesis, reactions and spectroscopic properties of all classes of hydrocarbons: alkanes, alkenes, alkynes, arenes, alicyclic compounds, polyenes, as well as the principle heterocyclic compounds. The course emphasizes the mechanistic approach to the reactivity of organic compounds and provides a thorough introduction to stereochemistry and nuclear magnetic resonance.

2345 Organic Chemistry II

3 credit hours

Prerequisite: CHEM 2344

This course is for science students intending to go on to more advanced organic chemistry. Topics include: reaction mechanism as a means of understanding reactivity, introduction to synthesis design, the structure, nomenclature, physical properties, synthesis, and reactivity of monofunctional organic compounds: alkyl halides, alcohols, ethers, aldehydes, ketones, carboxylic acids and their derivatives, amines, and phenols.

2346 Organic Chemistry for Life Sciences

3 credit hours

Prerequisite: CHEM 1211 or 1212 or 1213

A course for students in the life sciences. The course covers the chemistry of the principle functional groups in organic molecules with special emphasis on the relevance of organic functional group chemistry to molecules of biological importance. The functional group classes include: alcohols, thiols, phenols, ethers, epoxides, aldehydes, ketones, carboxylic acids, esters, amides, anhydrides, acid chlorides, nitriles, amines, amino acids, proteins, and carbohydrates. The course emphasizes the mechanistic approach to functional group reactivity and makes the connection to biochemistry at every opportunity. The stereochemical features of molecules of biological interest are emphasized.

Note: This course cannot be used to satisfy requirements for the Chemistry Major; Honours; or double Major or Honours. Students planning to go to some professional schools in Life Sciences are strongly advised to take CHEM 2344 and CHEM 2345.

3415 Polymers

3 credit hours

Prerequisite: CHEM 2312 and CHEM 2313

Students explore the physical chemistry of long-chain polymer molecules. Course material integrates and builds on foundation concepts in thermodynamics, kinetics, bonding and structure, as well as synthesis, and analytical methods. Topics include chain conformations; molecular weight averages, distributions and measurement; survey of different types of polymerization and polymerization kinetics; polymer solutions; phase behaviour; physical properties of

glass and crystalline states; structure and morphology; survey of natural polymers, biopolymers and degradation; structure-property relationships and end-use applications.

3424 Inorganic Chemistry II

3 credit hours

Prerequisite: CHEM 2322

This course examines the structure, bonding, and reactivity of transition metal complexes. Topics will include crystal field theory, ligand field theory, magnetism and electronic structure of coordination compounds; oxidation and reduction and substitution reactions of square planar and octahedral complexes. Ligands and an introduction to organometallic chemistry will also be covered.

3432 Instrumental Analysis I: Separations

3 credit hours

Prerequisite: CHEM 2333

Students examine advanced aspects of instrumental analysis including (i) an introduction to chemical separations; (ii) separation techniques including high performance liquid chromatography and gas chromatography; (iii) additional separations methods including capillary electrophoresis; and (iv) hyphenated techniques with organic mass spectrometry and additional topics at the discretion of the instructor.

3443 Organic Reaction Mechanisms

3 credit hours

Prerequisite: CHEM 2345

A study of the more important mechanisms of reactions of organic molecules and the methods by which they are elucidated: applications of kinetic data, isotope effects, linear free energy relationships, orbital symmetry control and acid and base catalysis.

3445 Organic Spectroscopy

3 credit hours

Prerequisite: CHEM 2345

An introduction to the interpretation of ^1H and ^{13}C nuclear magnetic resonance spectra. Infrared spectroscopy, mass spectrometry, and ultra-violet spectrophotometry will also be applied to the problems of organic and organometallic structural determination.

3451 Introductory Biochemistry

3 credit hours

Prerequisite: CHEM 2345 or 2346

This course reviews and/or presents an introduction to the chemistry and biochemistry of macromolecules such as proteins, enzymes, simple and complex carbohydrates, lipids, nucleic acids, and coenzymes. A relationship between the molecular structure of a given macromolecule, its properties, and its function in the living system is explored. The laboratory work concentrates on the isolation, purification, and analysis of naturally occurring macromolecules and includes study of their properties, using micro chemical measurements.

3473 Environmental Chemistry I [ENVS 3473]

3 credit hours

Prerequisite: CHEM 2332 or permission of instructor. Students examine sources, movements and ultimate destinations of chemicals in air, water and soil. Topics include: principles of green chemistry; reactions of the ozone layer; chemistry of ground-level air pollution; greenhouse effect; fossil fuel energy; global warming; alternative energy sources; polycyclic organic compounds; and the chemistry of natural waters including pollution and disinfection.

Note: There is no laboratory component for this course.

4412 Quantum Chemistry

3 credit hours

Prerequisite: CHEM 2312 and 2313, MATH 2311

The basic principles of quantum physics are used to develop an understanding of atomic and molecular structure.

4413 Physical Chemistry III

3 credit hours

Prerequisite: CHEM 2312, CHEM2313 and MATH 2311

An introduction to statistical thermodynamics and the study of chemical reaction rates and mechanisms.

4414 Symmetry and Chemical Applications of Group Theory

3 credit hours

Prerequisite: CHEM 4412 and three credit hours in MATH at the 2000 level or higher.

An introduction to symmetry and group theory for the experimental chemist. Applications of point groups and space groups in organic chemistry, inorganic chemistry, molecular spectroscopy, atomic and molecular structure and crystallography.

4421 Organometallic Chemistry

3 credit hours

Prerequisite: CHEM 3424 or permission of the instructor

This course will deal with synthesis, structure, and reactivity of organotransition metal complexes. Topics will include transition metal-alkyls, -carbonyls, -alkenes, -alkynes and -bonded complexes, fundamental reactions and applications to organic synthesis and catalysis. Characterization of organometallic complexes using spectroscopic techniques (IR, Raman, NMR, and ESR) and X-ray crystallography will also be covered.

4422 Advanced Topics in Inorganic Chemistry

3 credit hours

Prerequisite: CHEM 3424 or permission of the instructor

Current topics and applications of inorganic chemistry will be covered, and may include the following: cluster chemistry, chemistry of the lanthanides and actinides, inorganic and organometallic materials, bioinorganic chemistry and inorganic photochemistry.

4433 Instrumental Analysis II: Materials Analysis

3 credit hours

Prerequisite: CHEM 2333

Students examine advanced aspects of instrumental analysis for materials chemistry including (i) X-ray spectrometry; (ii) optical microscopy; (iii) electron microscopy; and (iv) scanning probe microscopy. Students will also study analog circuits and devices as well as digital electronics and additional topics at the discretion of the Instructor.

4444 Synthesis in Organic Chemistry

3 credit hours

Prerequisite: CHEM 2345

A study of the principles involved in the planning and execution of the synthesis of organic molecules. Laboratory experiments are designed so that students learn to identify their products by the use of spectroscopic and other techniques.

4452 Biochemistry: Intermediary Metabolism

3 credit hours

Prerequisite: CHEM 3451

A course presenting principles of metabolism of biomolecules involved in energy production, formation of biosynthetic substrates and metabolism of nucleic acids. Both catabolic and anabolic processes as well as transport of biomolecules within cells and organs are considered.

4453 Biochemistry: Secondary Metabolism II

3 credit hours

Prerequisite: CHEM 3451

A course presenting principles of metabolism of molecules commonly referred to as the secondary metabolites, i.e. involved neither in energy nor in biosynthetic substrates formation. Thus biosynthetic pathways leading to formation of major secondary metabolite (or natural products) classes, i.e. fatty acids derivatives, polyketides, isoprenoids including sterols, alkaloids, and shikimic acid pathway products such as phenols, lignans, and flavonoids, will be presented. Some major enzymes involved in formation of these biomolecules as well as the methods of pathway and structure elucidation will be presented along with biological activity, ecological and taxonomic significance of metabolites. The laboratory component will provide an opportunity to complete an individual research project, including literature search, experimental work, analysis of results, and writing a comprehensive report.

4499 Selected Research Topics in Chemistry

3 credit hours

Prerequisite: Enrolment is permitted to declared Chemistry Majors or Honours students who have successfully completed twenty-four (24) credit hours in CHEM.

A weekly seminar course that covers a broad range of research topics that are of current relevance, including ethics in science. Speakers include faculty from within and outside Saint Mary's University and students will normally be expected to present two seminars.

4500 Research Thesis

6 credit hours

Prerequisite: Enrollment is permitted to declared Chemistry Honours students only.

Students will carry out a research project under the direction of one of the Chemistry Department faculty members and will prepare a thesis on their work. The thesis is presented orally.

Chinese (CHNS)

Chairperson	M. McCallum, Modern Languages and Classics
Associate Professor	C. Beaupré
Adjunct Professor	Y. Qiu

Moratorium on new Admissions

Courses in Chinese are offered by the Department of Modern Languages and Classics

1. Enrollment in some language courses involves the following formal placement procedures.

All students seeking entry into language courses who have not previously taken a language course at Saint Mary's University must complete and return the Language Profile Form to the Department of Modern Languages and Classics.

Based on the information provided in the Language Profile Form, students may receive notification from the Department to appear for an oral interview and/or a written placement test at a designated time.

The Department of Modern Languages determines the appropriate course placement for each student

- (i) Permission to register or remain in a particular language course can be refused if the Department judges that the student's knowledge exceeds the level for that course.
- (ii) Native speakers are not eligible to receive advanced credit for language courses.
- (iii) Completion of Advanced Standing (transfer) courses does not exempt a student from taking the placement test.

2. In order to ensure the academic integrity in language courses, especially at the lower levels of instruction, the Department of Modern Languages and Classics does not allow native or near-native speakers of a particular target language to enroll in courses at the 2000 level or lower.

Students who misrepresent their knowledge of any given language by providing inaccurate or incomplete information about their linguistic educational history will be subject to disciplinary action as laid out in Academic Regulation 19.

4876 – 4899 Directed Study in Chemistry

3 credit hours

Prerequisite: Permission of instructor

These courses cover advanced topics in chemistry chosen according to the needs and interests of the students and instructor. These courses provide an opportunity to study a particular subject in detail and require some measure of independence and initiative from the student.

3. The Department of Modern Languages and Classics supports a policy of regular class attendance by students. Frequent, unexplained absences from class will result in a lowering of the final grade in a manner to be determined by each faculty member.

Certificate of Chinese Studies (Cert. C.S.)

This certificate program in Chinese Studies is designed to provide linguistic, cultural and practical knowledge to persons interested in studying about or working in China. The program consists of twenty-four (24) credit hours. It is intended for undergraduate students, persons already holding degrees in any discipline, and mature students with relevant work experience.

Admission

The Certificate of Chinese Studies requires a formal application for admission. The official approval of the Asian Studies Coordinator is a prerequisite for admission to the program. Students majoring in Asian Studies at Saint Mary's University are not eligible for this program.

A student of the program must complete at least eighteen (18) credit hours at Saint Mary's University. Relevant academic courses, work experience and linguistic capability may be considered for credit recognition. Applicants should submit a resume of relevant work experience, official university transcripts and any other relevant documentation.

Program Courses

This program consists of twelve (12) required credit hours and a number of optional credit hours. All students are required to take CHNS 1101 (Introductory Modern Chinese I), CHNS 1102 (Introductory Modern Chinese II) and CHNS 2200 (Intermediate Modern Chinese). Students must also select twelve (12) optional credit hours in at least two different disciplines from the following courses:

ANTH 2326; ASNT 3300; ASNT 3310; HIST 1222; HIST 2381; HIST 2382 HIST 2383; RELS 2327.

At least twelve (12) credit hours must be at the 2000 level or above. Detailed descriptions are found under Departmental listing. These courses may not be offered every year.

Requirements for Graduation

Students are encouraged to complete the program within five years. A minimum cumulative grade point average of 2.00 in the Certificate of Chinese Studies is required. Students who have completed all the courses without being officially admitted to the program will not be accredited.

Course Descriptions

1101 Introductory Modern Chinese I

3 credit hours

Students are introduced to spoken and written modern Chinese (Mandarin). Conversational drill and comprehension exercises in the classroom and laboratory provide practice in pronunciation and in the use of the basic patterns of speech. Chinese ideographs are introduced and studied in combinations. Reading progresses from prepared materials to selections from contemporary writings.

1102 Introductory Modern Chinese II

3 credit hours

Prerequisites: CHNS 1101

In this continuation of CHNS 1101, students deepen their ability to use spoken and written modern Chinese (Mandarin).

2200 Intermediate Modern Chinese

6 credit hours

Prerequisite: CHNS 1101 and 1102

A continuation of CHNS 1101 and 1102, this course is intended to develop proficiency in both oral and written Chinese with emphasis on comprehension. Textbooks, newspapers, magazines, and modern short stories will be used, especially in the second semester, to help students acquire the ability to read and write.

3300 Advanced Oral and Written Chinese I

3 credit hours

Prerequisite: CHNS 2200

This course offers an opportunity to build and refine students' ability to comprehend and to communicate effectively in Chinese.

3301 Advanced Oral and Written Chinese II

3 credit hours

Prerequisite: CHNS 3300

This course is a continuation of CHNS 3300.

Classics (CLAS)

Ancient History (CLAS) - Classical Literature and Civilization (CLAS) - Greek (GREK) - Latin (LATN)

Chairperson	M. McCallum, Modern Languages and Classics
Associate Professor	M. McCallum
Assistant Professor	A. E. Barclay

Courses and programs in Classics are offered by the Department of Modern Languages and Classics

Note that Classics courses (CLAS) satisfy the BA humanities requirement 3(c), but courses in Latin and Greek do not. **One of the language courses may be used to satisfy the 3(b) requirement of the Faculty of Arts, while the other courses in Classics may be used to satisfy the 3(c) requirement.**

Programs in Classics

The Classics Program encompasses ancient languages, literature, history and culture in Greek, Roman, and Near Eastern societies and, as such, is a central, foundational element of an Arts education. The department offers a range of courses leading to a major (either Ancient Languages or Classical Civilization stream) or minor in Classics that encompass ancient Latin and Greek, as well as the history, archaeology, art, and literature of ancient Greece, Rome, and the Near East. The program at Saint Mary's presents students with the core concepts, texts, and material culture of the Ancient Greeks and Romans, including courses on ancient history, literature in translation, women and gender, and archaeology. The core of the program, however, is distinctive in that it reflects a developing trend in the study of the ancient Mediterranean which positions the ancient civilizations of the Greeks and the Romans within the context of wider trends in Mediterranean cultural,

intellectual, religious, artistic, and historical change and development. Top this end, the program also includes courses on the ancient Near East, Egypt, the Iron Age, the Bronze Age, archaeological theory, the tradition of ancient imperialism, and the fruitful interaction among the various peoples of the ancient Mediterranean, the Near East, and Europe. Many of our courses are cross-listed with other disciplines, including History and Women and Gender Studies, and our upper-level courses present to students the latest in current theory and method with respect to the study of archaeology, history, and the history of art. As such, there is some overlap with disciplines such as History, Anthropology, Geography, Geology, and Environmental Studies, and many of our students pursue double-majors in Classic and these other subject areas.

Students majoring in Classics must study at least one of the ancient languages. Entry to a graduate program in Classics normally means the successful completion of at least eighteen (18) credit hours at the undergraduate level in one ancient language (Latin or Greek) and twelve (12) credit hours in the other. Latin is a valuable asset for students majoring in French, German or Spanish.

Major in Classics

A major in Classics comprises forty-two (42) credit hours, eighteen (18) credit hours of which must be at the 3000 level or higher. There are two recommended tracks for our Classics majors:

- 1) Ancient Languages: Classics with the ancient languages
- 2) Classical Civilizations: Classics without the ancient languages

Ancient Languages track:

The Ancient Languages track is recommended for students interested in pursuing a career in some aspect of Classical Studies (e.g. Literature, History, Archaeology). Entry into a graduate program in Classics normally means the successful completion of at least eighteen (18) credit hours at the undergraduate level in one ancient language (Latin or Greek) and twelve (12) credit hours in the other. Latin is a valuable asset for students majoring in French, German or Spanish. Both Latin and Greek are useful to students interested in entering a seminary, studying theology, philosophy, medicine, European history, or linguistics.

Recommended credit hours to complete this track:

6 credit hours in at least one ancient language; 6 credit hours in Classics at the 1000 level; 12 credit hours at the 2000 level; 15 credit hours at the 3000 level; 3 credit hours at the 4000 level.

Suggested Schedule

Year 1

- LATN 1100 or GREK 1100 (6 credit hours)
- Three (3) credit hours at the 1000 level
 - Possible Courses: CLAS 1001, 1002, 1003, 1004
- Three (3) credit hours at the 2000 level
 - Possible Courses: CLAS 2000, 2100, 2200, 2450, 2451, 2452, 2453, 2454, 2455, 2500
 - There are no prerequisites for 2000 level courses

Year 2

- LATN 2201 or GREK 2200 (6 credit hours)
- Three (3) credit hours at the 1000 level
- Six (6) credit hours at the 2000 level
- Six (6) credit hours at the 3000 level
 - Possible courses: CLAS 3000, 3100, 3310, 3317, 3318, 3319, 3321, 3352, 3354, 3400, 3410, 3420, 3610, 3611, 3612, 3826 – 3849

Year 3

- Three (3) credit hours at the 2000 level
- Six (6) credit hours at the 3000 level
 - CLAS 2000 and 2100 are natural precursors to CLAS 3000, 3100, 3317, 3318, 3319
 - CLAS 2450, 2451, 2452, 2453, 2454 are natural precursors to CLAS 3400, 3410, 3420, 3352
- OR, Three (3) credit hours at the 3000 level and three (3) credit hours at the 4000 level

Year 4

- Three (3) credit hours at the 4000 level
 - Possible courses: CLAS 4405, 4406, 4407, 4600, 4610, 4611
 - It is generally advisable to have taken a 3000 level CLAS course, or related 3000 level course in the Arts, prior to enrolling in a 4000 level CLAS course
- Three (3) credit hours at the 2000 level
 - Possible courses: CLAS 2000, 2100, 2200, 2450, 2451, 2452, 2453, 2454, 2500, 2600
 - There are no prerequisites for 2000 level CLAS courses
- Three (3) to six (6) credit hours at the 3000 level

- CLAS 2000 and 2100 are natural precursors to CLAS 3000, 3100, 3317, 3318, 3319
- CLAS 2450, 2451, 2452, 2453, 2454 are natural precursors to CLAS 3400, 3410, 3420, 3352

Classics Civilizations track:

The Classics Civilizations track is recommended for students interested in acquiring a Liberal Arts style BA as a foundation degree for careers in law, law enforcement, education (Classics is recognized as a 'teachable' program by the Nova Scotia School Board), business, museum studies, cultural resource management, architecture, politics, among many other career possibilities.

Recommended credit hours to complete this track:

CLAS courses only: 6 credit hours at the 1000 level; 12-15 credit hours at the 2000 level; 18-21 credit hours at the 3000 level; 3 credit hours at the 4000 level.

Suggested Schedule

Year 1

- Six (6) credit hours at the 1000 level
 - Possible courses: CLAS 1001, 1002, 1003, 1004
- Six (6) credit hours at the 2000 level
 - Possible courses: CLAS 2000, 2100, 2201, 2450, 2451, 2452, 2453, 2454, 2455, 2500

Year 2

- Six (6) credit hours at the 2000 level
- Six (6) credit hours at the 3000 level
 - Possible courses: CLAS 3000, 3100, 3310, 3317, 3318, 3319, 3321, 3352, 3354, 3400, 3410, 3420, 3610, 3611, 3612, 3826 – 3849

Year 3

- Three (3) credit hours at the 2000 level
- Nine (9) credit hours at the 3000 level
 - CLAS 2000 and 2100 are natural precursors to CLAS 3000, 3100, 3317, 3318, 3319
 - CLAS 2450, 2451, 2452, 2453, 2454 are natural precursors to CLAS 3400, 3410, 3420, 3352
- OR Six (6) credit hours at the 3000 level and three (3) credit hours at the 4000 level

Year 4

- Three (3) credit hours at the 4000 level
 - Possible courses: CLAS 4405, 4406, 4407, 4600, 4610, 4611
 - It is generally advisable to have taken a 3000 level CLAS course, or related 3000 level course in the Arts, prior to enrolling in a 4000 level CLAS course
- Three (3) credit hours at the 2000 level
 - Possible courses: CLAS 2000, 2100, 2200, 2450, 2451, 2452, 2453, 2454, 2500, 2600
 - There are no prerequisites for 2000 level CLAS courses
- Three (3) to six (6) credit hours at the 3000 level
 - CLAS 2000 and 2100 are natural precursors to CLAS 3000, 3100, 3317, 3318, 3319
 - CLAS 2450, 2451, 2452, 2453, 2454 are natural precursors to CLAS 3400, 3410, 3420, 3352

Concentration in Classics

To obtain a concentration in Classics in partial fulfillment of the B.A. General Degree (i.e. one with a Double Arts Concentration and a minimum of ninety (90) credit hours), a minimum of twenty-four (24) credit hours Classics is required. At most 6 credit hours can be at the 1000 level. Also, the minimum grade point average is 2.00.

Minor in Classics

A minor in Classics consists of at least twenty-four (24) credit hours, twelve (12) of which must be at the 3000 level or above. To obtain a minor students must achieve a minimum grade point average of 2.00 (an average grade of C or better) in the courses of the minor.

Thematic Course Clusters:

Ancient Languages: GREK 1100, LATN 1100, GREK 2200, LATN 2201

Ancient Mediterranean Archaeology: CLAS 1003, CLAS 1004, CLAS 2000, CLAS 2100, CLAS 3000, CLAS 3100, CLAS 3317, CLAS 3318, CLAS 3319, CLAS 3320, CLAS 3610, CLAS 3611, CLAS 3612, CLAS 4600, CLAS 4610, CLAS 4611

Classical Cultures: CLAS 1001, CLAS 1002, CLAS 2451, CLAS 2452, CLAS 2500, CLAS 3311, CLAS 3317, CLAS 3321, CLAS 3352, CLAS 3354

Ancient History: CLAS 2450, CLAS 2451, CLAS 2452, CLAS 2453, CLAS 2454, CLAS 2455, CLAS 3400, CLAS 3410, CLAS 4407

Literature in Translation and Mythology: CLAS 2201, CLAS 3310, CLAS 3321

Women and Gender Studies: CLAS 3352, CLAS 3354

Course Descriptions (CLAS)**1001 Ancient Civilizations of the Near East and Egypt**

3 credit hours

An introduction to the civilizations and cultural contributions of the ancient Near East and Egypt. Aided by illustrated lectures and the study of ancient literature, students will explore the history, political organizations, art and monuments of these early civilizations.

Note: This course is not open to students with credit in CLAS 2200

1002 The Ancient Civilizations of Greece and Rome

3 credit hours

A general introduction to the civilizations of ancient Greece and Rome with particular regard to history, political organization, material culture, and contributions to western cultural development. Students will examine primary sources relevant to the history, social, and political organization of Greek and Roman society, and be introduced to the art, architecture, and material culture of these two ancient cultures

Note: This course is not open to students with credit in CLAS 2200.

1003 Material Culture from Prehistory to the Middle Ages

3 credit hours

Students examine the artistic, artifactual and architectural remains of Europe, the Mediterranean and Western Asia from prehistoric times to the 14th century CE.

1004 Introduction to Archaeological Method and Theory

3 credit hours

Students are introduced to the practice, method, and theory of the discipline of archaeology through a careful examination of select case studies drawn from archaeologists working on ancient Mediterranean sites.

2000 Legacies: the Archaeology of Ancient Greece

3 credit hours

Students are introduced to the art and archaeology of the ancient Greek world from the Late Bronze Age through the Hellenistic period. Students consider the “major arts” (ceramics, painting, sculpture, architecture) within their broader social, historical and religious contexts. Students apply art historical and archaeological method and theory as well as explore the relevance of the artistic and architectural innovations of the ancient Greeks on subsequent cultures, including our own.

2100 Secrets of the Dear: Roman Archaeology

3 credit hours

Students investigate important issues and current problems in the art and archaeology of the ancient Roman world. Students focus on a careful examination of the material record of the ancient Romans, including architecture, works of art, and artifacts, and through the lens of art historical and archaeological method and theory, complex cultural phenomena such as imperialism, urbanism, gender definitions, ethnicity, economic behaviour, cultural interaction, and culture change. Students consider the images of the great works of art and architecture of the Roman world, such as the Pantheon and the Augustus Prima Porta, and examine the great sites of the Roman world, including: Pompeii, Ostia, Rome, Ephesus, and Constantinople.

Note: Students who have taken CLAS 3312, “Art of the Hellenistic World and/or Rome,” are not eligible to receive credit for this course.

2201 The Mythology of Greece and Rome I: Gods and Heros

3 credit hours

Students explore the nature of mythology in ancient Greece and Rome through a survey of the principal myths of the gods and goddesses. Emphasis will be placed on myths describing the creation of the universe, the gods and their powers, the origin of humans and the relationships between gods and mortals. Students read a selection of works of Classical literature and assess how these myths helped shape the life and thought of the classical civilizations of Greece and Rome.

2345 Greek Philosophy: The Presocratics and Plato
[PHIL 2345]

3 credit hours

Prerequisite: nine (9) credit hours

Students examine Greek philosophy before the time of Socrates followed by careful readings of selected dialogues by Plato.

2346 Greek Philosophy: Aristotle and The Hellenists
[PHIL 2346]

3 credit hours

Prerequisite: nine (9) credit hours

Students study Aristotle's views (focusing on topics in metaphysics, psychology, knowledge, and ethics), together with a brief examination of several Hellenistic philosophers.

2450 The 'Cradle of Civilization': The Ancient Near East
3 credit hours

Students explore the history and cultures of Anatolia, Mesopotamia, and the Levant from the first cities, ca. 3000 BCE, to the fall of the Persian Empire, ca. 323 BCE. Students unravel the complex histories of the 'first civilizations', exploring such topics as kingship and religion, urbanization, commerce, legal and social structures and scientific innovations.

2451 Greek History I: From Minos to the Medes
[HIST 2451]

3 credit hours

An introduction to the history and culture of the ancient Greeks from the Bronze Age through the Persian Wars. Students will explore Minoan and Mycenaean civilizations and the social, historical and cultural development of the Archaic period, including the origins of the Greeks and the evolution of the polis and early political systems. Among the topics students will examine are the evaluation of the Spartan military state, Athenian democracy, pre-Classical Greek religion, art, architecture and literature. Students will be asked to read the works of various ancient authors and to consider the archaeological and epigraphical evidence for this period of Greek history.

Note: This course is not open to students who have received credit in CLAS 3303//HIST 2350

2452 Greek History II: The Golden Age of Greece
[HIST 2452]

3 credit hours

An introduction to the history of the Greeks from the Persian Wars through the death of Alexander the Great. Students will study the historical, political and cultural developments of the Greeks in the 5th and 4th centuries BC, including the rise and fall of Athens, democracy in action and the cultural achievements of Athens in her "Golden Age" (e.g. religion, theatre, philosophy, art and architecture). Students will also explore the activities of other Greek states (e.g. Sparta, Boeotia, Syracuse), the roles of men and women in Greek society, the causes and aftermath of the Peloponnesian wars, the conquest of Greece by Phillip II of Macedon and of the Persian Empire by his son, Alexander. Students will be asked to read various works of ancient authors and to

consider archaeological and epigraphical evidence relevant to this period of Greek history.

2453 Republic and Revolution: Roman History I [HIST 2453]

3 credit hours

An introduction to the history of Italy and the city of Rome from the Iron Age through the end of the Roman republican system of government. This course will explore the origins and evolution of the Roman Republic, including the interaction among Romans, their Italian neighbours such as the Etruscans, and the Greek and Phoenician peoples of the eastern Mediterranean. Among the topics students will examine are the political and military history of the period as well as the social and cultural context that encapsulates and informs this history, and the eventual decline of the republican system amidst the political turmoil and revolution of the first century BC. Students will be asked to read the works of various ancient authors and to consider archaeological and epigraphic evidence for this history of the Roman republic. Content will vary from year to year.

NOTE: This course is not open to students who have received credit in CLAS 3304//HIST 2351

2454 Bloody Caesars: Roman History II [HIST 2454]

3 credit hours

An introduction to the history of the Roman world from the establishment of the Principate under Octavian/Augustus to the decline of the Roman empire in the western Mediterranean and Europe. This course will explore the evolution of the Principate and its eventual replacement by the Dominate, the nature of Roman imperialism, the role of the emperor as a political and religious figure, the interaction among the Romans and their neighbours in central Europe and the Near East, and the eventual political and economic disintegration of the imperial system. Students will be asked to consider such topics as different models of Roman economic, social, and political organization, the role and status of women in the Roman world, the codification of the Roman legal system, and the intellectual and religious developments that laid the foundations for subsequent historical periods in Western Europe and the Mediterranean. Students will be asked to read the works of various ancient authors and to consider archaeological and epigraphic evidence relevant to the history of the Roman imperial period. Content will vary from year to year.

2455 Ancient Empires

3 credit hours

This course is an introduction to the empires of the ancient Near East, Egypt, and the Mediterranean, including Greece and Rome. Throughout the course various imperial systems and experiences will be contrasted, and models of imperialism and colonialism explored. Students are also introduced to ancient history, culture, art, architecture, and literature as these topics relate to imperialism.

2500 War and Society in the Ancient Mediterranean
[HIST 2500]

3 credit hours

This course is an introduction to warfare as it was practiced by the peoples of the ancient Mediterranean and the degree to which military organization and the act of waging war

affected other aspects of these societies, including political ideology, religious beliefs, and economic exchange systems.

3000 Topics in Greek Art and Archaeology

3 credit hours

Prerequisite: 6 credit hours in CLAS or 30 credit hours overall

This course addresses a specific topic, theme, period, or geographical region related to the study of Greek Archaeology. The specific topic and course content will be different each time the course is offered, so the students should check with the program coordinator for Classics about the specific topic on offer for the current semester. Topics may include art and architecture of the Aegean Bronze Age (Minoans and Mycenaean), urban life in the Greek city-state, art and politics in Archaic and Classical Greece, cultural interaction between Greece, the Near East and Egypt or Greek iconography. This course is intended to follow CLAS 2000, "Legacies: the Archaeology of Ancient Greece", but students with a background in archaeology, history, Classics, or art history are also encouraged to enroll.

3100 Topics in Roman Archaeology

3 credit hours

Prerequisite: 6 credit hours in CLAS or 30 credit hours overall

This course addresses a specific topic, theme, period, or geographical region related to the study of Roman Archaeology. The specific topic and course content will be different each time the course is offered, so students should check with the Program coordinator for Classics about the specific topic on offer for the current semester. Topics may include art and architecture of the Augustan Age, Etruscan art and archeology, the art and archaeology of the Roman provinces, or the art and architecture of empire. This course is intended to follow CLAS 2100, "Secrets of the Dead: Roman Archaeology," but students with a background in archaeology, history, Classics, or art history are also encouraged to enroll.

3310 Classical Literature [ENGL 3310]

3 credit hours

Prerequisite: 6 credit hours in CLAS or 30 credit hours overall

This course is a survey of the literature of ancient Greece and/or Rome in English translation. Course content will be organized either thematically, for example on women in Classical literature or metamorphosis, or by genre, for example on epic, tragedy, or comedy. The course is intended for students who have some background in Classics and/or Classical literature.

3317 Greek Sanctuaries

3 credit hours

Prerequisite: 6 credit hours in CLAS or 30 credit hours overall

This course explores ancient Greek religion and the role of the sanctuary in Greek culture. Students will study the archaeological remains and documentary evidence for the role and function of domestic, civic, and panhellenic sanctuaries (e.g., household cults, the Athenian Acropolis,

Olympia, Delphi). Students will also consider sites which provide examples of specialty cults (healing, oracular, mystery religions) or which illustrate particular social, political or archaeological issues.

3318 Classical Archaeology

3 credit hours

Prerequisite: 6 credit hours in CLAS or 30 credit hours overall

A study of the civilizations of ancient Greece and Rome based on the material remains (e.g., artifacts, architecture, epigraphy). Students will learn how archaeology has helped shape our understanding of these ancient cultures through an exploration of the pioneer days of Classical archaeology, modern methods of interpretation, and of the sites, artifacts and monuments in their cultural contexts.

3319 Pompeii

3 credit hours

Prerequisite: 6 credit hours in CLAS or 30 credit hours overall

Students examine the archaeological remains of Pompeii, including the site's depositional history and the history of its excavation, as well as its architectural remains, material culture, and art. Students are introduced to current archaeological research at the site which is changing our understanding of Roman urban life.

3320 Hellenistic Art and Culture

3 credit hours

Prerequisite: 6 credit hours in CLAS or 30 credit hours overall

The main objective of the course is for students to gain a basic familiarity with the major trends in Hellenistic art and architecture. In addition to learning basic art historical analysis, students place the material studied in its appropriate cultural, historical and archaeological contexts.

3321 Swords and Sandals: the Classical World Through Film

3 credit hours

Prerequisite: 6 credit hours in CLAS or 30 credit hours overall.

Students examine aspects of the Classical world through the lens of film as a means to understand ancient Mediterranean cultures. Students view and discuss modern versions of ancient stories, modern performances set in the ancient Mediterranean world, and films that present classical themes and allusions.

3352 Women and Family in Ancient Greece [WMST 3352]

3 credit hours

Prerequisite: 6 credit hours in CLAS or 30 credit hours overall

Students study the ancient Greek oikos (family, household) and the daily activities, roles and legal position of women, children and other dependents in the ancient Greek households (ca. 800-31 BCE). The focus will be on women

of different social classes and family life in ancient Greece, with some comparative consideration of the lives of women in other regions of the ancient world (Italy, Mesopotamia, the Levant and Egypt).

3354 Love and Sexuality in the Ancient World

3 credit hours

Prerequisites: 6 credit hours in CLAS or 30 credit hours overall.

Students study Greek and Roman attitudes towards gender, love and sexuality. Literary and artistic evidence will be used to explore the ancient Greek and Roman attitudes towards gender roles, social morality, homosexuality, marriage and adultery, sexuality and erotic art. Students study these topics in context and discuss how they relate to modern values and gender issues.

3400 Rome's Eternal Glory: The Age of Augustus [HIST 3400]

3 credit hours

Prerequisite: 6 credit hours in CLAS or 30 credit hours overall

Students examine a key transitional historical period in the Roman world, with the dissolution of the republic and its replacement with a monarchy during the reign of Rome's first emperor. Through a close analysis of ancient material and textual evidence, students will examine and evaluate the Age of Augustus.

3409 On the Edge of Empire: Roman Britain and the Western Provinces [HIST 3409]

3 credit hours

Prerequisite: 6 credit hours in CLAS or 30 credit hours overall

Students examine the history, organization, material culture, and cultural diversity of Rome's western provinces, with particular attention paid to Britannia. Students also consider Roman imperialism and the interaction of Romans and subject peoples.

3411 Great Trials of Ancient Athens

3 credit hours

Prerequisite: 6 credit hours in CLAS or 30 credit hours overall.

Students study Athenian democracy, law, life in 5th-4th century BC Athens through speeches (in translation) from a selection of cases (e.g. homicide, impiety, sexual misconduct and slander) in combination with other documentary evidence, iconography and archaeological remains. Topics include: aspects of the legal and political systems, Athenian social life and the core Athenian.

3420 International Relations Eastern Mediterranean Style

3 credit hours

Prerequisite: 6 credit hours in CLAS or 30 credit hours overall

Students study the intercultural relationships among the inhabitants of the eastern Mediterranean during the Archaic and Classical periods of Greek history (ca. 900 to 323 BCE).

The focus will be on the interactions among the Greeks, the Phoenicians and the Persians and the impacts their exchanges had on the political, commercial and cultural activities of the regions.

3505 Museum Studies [HIST 3505]

3 credit hours

Students are introduced to and given an overview of the world of museums and museum studies. Students learn about the history of museums, the constantly evolving purpose of such institutions, particularly during the twentieth century and in the contemporary world, their role in public education, archival and collations management, exhibitions, funding models, governance, and current debates in the field. This course is a combination of seminars and site visits to museums, which require that students engage with the museum community of Nova Scotia.

3610 Field Study in Roman Archaeology

3 credit hours

Prerequisite: 6 credit hours in CLAS or 30 credit hours overall

The practical application of archaeological field techniques and method as it pertains to the study of Classical Roman sites in the Mediterranean and Europe. This course is always taught off-campus at one or more ancient Roman sites in Europe, most frequently Italy. Consequently, the course is dependent upon external funds and has a limited enrollment. Please consult the Program Coordinator of Classics regarding availability.

3611 Laboratory Methods in Roman Archaeology

3 credit hours

This course introduces students to the laboratory method used by Roman archaeologists in the study of archaeological materials recovered from Roman-period sites. The course is taught on-site in the Mediterranean and is to be taken in conjunction with CLAS3610 during the same academic year.

3612 Ancient Cities and Sanctuaries

3 credit hours

Prerequisite: 6 credit hours in CLAS or 30 credit hours overall

This field course of ancient Greek and/or Roman history and culture is organized around visits to archaeological sites and major museums in one or more countries associated with these ancient civilizations (e.g.: Greece, Turkey, or Southern Italy and Sicily).

3826 – 3849 Thematic Selected Topics in Classics

3 credit hours

Prerequisite: 6 credit hours in CLAS or 30 credit hours overall

A series of courses on selected topics that will be determined by the course instructor. Each course will focus on particular themes in Classical culture (history, archaeology, art and/or literature) and/or specific chronological periods. The subject matter of these courses will be announced occasionally.

4405 Advanced Reading and Tutorial

6 credit hours

Prerequisite: permission of instructor.

A course based on directed readings and research. The contents of the course will be determined by the specific interests of the professor and the students involved. Students will have the opportunity to pursue in depth their individual interests in the field of Classics, and will meet regularly with a member of the Department to discuss their research. To register in this course students must demonstrate a satisfactory background in Classics or the Ancient World of the Near East and an ability to do independent research.

4406 Seminar in Classical Studies

3 credit hours

Prerequisite: 12 credit hours in Classics or permission of the instructor.

A seminar on selected topics in Classical culture (history, archaeology, art, literature and/or a specific chronological period) intended as an advanced course for Classics majors and students in their graduating year. Topics to be examined will be selected by the instructor. Students will be required to give seminar presentations and write a major research paper.

4407 Greek Art, Life and Politics

3 credit hours

Prerequisites: Twelve (12) credit hours in CLAS or the permission of the instructor.

In this seminar the social history of Archaic and/or Classical Greece is explored through the function and meaning of material culture. The material remains, which include metal, ivory, ceramic vessels, and sculpture, are important sources of evidence for understanding the daily lives of the ancient Greeks and their social values.

4600 Artifacts and Artifice in Classical Archaeology

3 credit hours

This course provides students with an overview of the identification, analysis, and interpretation of material culture recovered from Classical sites, as well as issues associated with its production, distribution, and consumption. The material culture examined includes ceramics, glass, bone artifacts, metal artifacts, and coins.

4610 Advanced Field Study in Roman Archaeology

3 credit hours

Prerequisite: CLAS 3610 or ANTH 3373, and permission of the instructor

This course is for students who wish to increase their proficiency as field archaeologists. Students will take an active part in an ongoing archaeological research project, to record archaeological data in a professional manner, and to assist in the supervision of students at the introductory level. This course is taught on-site in Europe, the Middle East, or North Africa.

4611 Advanced Laboratory Methods in Roman Archaeology

3 credit hours

Prerequisite: CLAS 3611 or ANTH 3374

Students have the opportunity to learn and apply advanced field laboratory methods and techniques to the study of Roman material culture. The course is normally to be taken in conjunction with CLAS 4610. This course is taught on-site in Europe, the Middle East, or North Africa.

4876 – 4899 Directed Study

3 credit hours

Prerequisite: At least twelve (12) credit hours in Classics or permission of instructor.

A three (3) credit hour course open to students who wish to pursue a special topic or topics in Classics through tutorials, independent study, and research. The availability of this course depends upon the agreement of a particular faculty member who is prepared to direct the tutorial and study program.

Classics - Greek (GREK)**1100 Introduction to Ancient Greek**

6 credit hours

This course is an introduction to the major grammatical points of the ancient (Attic) Greek. Students will meet the challenges of learning an inflected language.

2200 Intermediate Ancient Greek

6 credit hours

Prerequisite: GREK 1100 or equivalent.

Students develop the techniques of ancient Greek-English translation. The first part of the course will continue the study of Attic Greek grammar; in the second part of the course, students apply their skills in translation by reading selections from ancient Greek prose and poetry.

Classics - Latin (LATN)**1100 Introduction to Latin**

6 credit hours

A course in the essentials of Latin grammar for students beginning their study of this ancient language. Since Latin is an inflected language with many changes in endings, students should be prepared to work hard at understanding and learning its basic structures.

2202 Intermediate Latin I

Students work to enhance their development of good techniques of Latin-English translation and of rendering English into idiomatic Classical Latin. A variety of Latin authors and the continued study of Latin grammar will be utilized to achieve those objectives.

2203 Intermediate Latin II

This course is a continuation of LATN 2202.

Commercial Law (CMLW)

Professor B. Anderson

These courses are administered by the Department of Accounting.

2201 Legal Aspects of Business - Part I

3 credit hours

The formation of a contract will be discussed along with the requirements for enforcing a contract, the discharge of contracts, the assignment of contractual rights, privacy misrepresentation, mistake, and duress. Students will be introduced to intentional torts, negligence, different forms of business organizations, the sale of goods, real property, the Canadian legal system, and methods of dispute resolution.

3202 Legal Aspects of Business - Part II

3 credit hours

Prerequisite: CMLW 2201

Students critically examine additional legal aspects of business. Topics covered may include laws and legal issues pertaining to human rights, the constitution, war, competition, criminal enterprise, employment, labour, sports, defamation, tax, immigration, the environment, and the law of the sea..

Communications (COMM)

Associate Professor G. Fullerton

These courses are administered by the Department of Marketing.

2293 Communications

3 credit hours

Prerequisite: MGMT 1281 and CISY 1225.

This course emphasizes professional writing skills and prepares students to communicate effectively. Students learn to write clear, concise memoranda, letters, reports, resumes, and other documents. The course focuses mainly on written communication skills and strategies.

3394 Oral Communications and Presentation Techniques

3 credit hours

Prerequisite: COMM 2293

This course focuses on oral communication in a business setting. The course will give students the opportunity to learn techniques and strategies related to the development, organization, and delivery of oral communications with an emphasis on business presentations. Topics will include topic selection and refinement, development of support material, and presentation polishing and delivery. Students will participate in and evaluate presentations.

Computing and Information Systems (CISY)

Chairperson Francis Boabang, Professor
 Professor D. Jutla, S. Sivakumar, H. Wang
 Associate Professors K. Kimery, Z. Wan

Computing and Information Systems courses are offered by the Department of Finance, Information Systems, and Management Science.

Over the past few decades, computerized information systems have helped transform the business and social landscape in North America and around the world. To be successful today, companies require individuals who possess in-depth understanding of the technologies and processes underlying the new environment, and, at the same time, understand the strategic information needs of businesses and consumers. The Bachelor of Commerce degree with a major in Computing and Information Systems is designed to prepare students to fill this important role in modern organizations.

A major in Computing and Information Systems may be completed within the Bachelor of Commerce program, either alone or as part of a dual major. In either case a major in Computing and Information Systems requires the completion of the core B. Comm. requirements plus a set of core CIS courses. Course requirements for a Computing and Information Systems major, beyond the B. Comm. Core, are described below and in Section 3 of the *Calendar*.

Note: Students are advised that possession of the minimum qualifications does not guarantee admission to a particular academic program. Limits to the number of students who can be in a particular program at any one time exist and depend very much on the number of faculty members available in a particular academic unit.

Upon completion of 45 credit hours, Commerce students with a cumulative grade point average of 2.0 may elect to

declare a major in Computing and Information Systems. (In exceptional circumstances, students can also be admitted to the major by permission of the Chairperson.)

To assist students, the Year 3 and Year 4 course requirements for a Computing and Information Systems major and the core BComm degree program requirements are listed below. Course descriptions follow.

To complete a major in Computing and Information Systems, students must attain a minimum grade point average of 2.2 in ACCT 3323 and all Computing and Information Systems courses taken at the 2000 level and above (as indicated below by *).

Year 3

- *ACCT 3323 Management Information Systems
- *CISY 3326 Database Programming
- FINA 2360 Business Finance I
- FINA 3361 Business Finance II
- MGMT 3480 Ethical Responsibilities of Organizations
- Three (3) credit hours in Computing and information Systems electives.
- Three (3) credit hours in Commerce electives at 3000-level and above.
- Six (6) credit hours in non-Commerce electives.
- Three (3) credit hours in free electives.

Year 4

- *CISY 4425 Systems Analysis and Design
- *CISY 4435 Information Systems Projects and Practice
- *CISY 4436 Communication, Networks and Security
- MGMT 4489 Strategic Management
- Six (6) credit hours in non-Commerce electives
- Twelve (12) credit hours in free electives

Course Descriptions

1225 Introduction to Computer Applications

3 credit hours
 This course is an introduction to computers and their use in a number of different environments. The emphasis is placed on learning the use of common business software packages and programming. Other topics will include computer hardware and software, data processing and information systems.

2320 Business Applications Programming

3 credit hours
 Prerequisite: CISY 1225 or CSCI 1226

This is a foundation programming language course that presents fundamental principles used in writing business applications. Primitive data types, objects, controls, basic data structure, flow control constructs, reusable modules, and debugging techniques are covered. Further topics include parameter passing methods, arrays, error handling, and file processing. The implementation language, such as Visual Basic, will utilize object-oriented programming concepts. This course is a foundation course for the CISY program.

3326 Database Programming

3 credit hours
 Prerequisite: CISY 1225

This course covers topics in modeling data to meet organizational requirements, programming business applications on a current database management platform, the SQL command language, and managing data security and database administration. Also included are topics on hierarchical, distributed, and object oriented databases.

3327 Web Information Systems

3 credit hours
 Prerequisite: CISY 1225

This course introduces students to web information systems, a sub-area of CISY that focuses on those systems that interact with the World Wide Web. Course content includes a survey of WIS applications, conceptual foundations for the design and integration of WIS applications, as well as hands-on experience designing and building WIS applications. Specific topics may include the design, implementation, management and evaluation of web pages, web-enabled applications, and web-integrated databases.

4425 Systems Analysis and Design

3 credit hours
 Prerequisite: COMM 2293, ACCT 3323 and CISY 3326

The intent of this course is to provide the student with the necessary skills to successfully apply state-of-the-art information systems methodologies to the planning, analysis, design, and implementation phases of information systems projects. These skills include, but are not limited to, information systems strategy development, requirements analysis for business processes, business process modeling techniques, data and architectural modeling techniques, and project management skills and techniques. Students work in teams to perform a real-life systems analysis and design exercise for a business organization.

4435 Information Systems Projects and Practice

3 credit hours
 Prerequisite: CISY 4425 or permission of instructor.

This course focuses on the design and development of information systems (IS) to support business decision-making. Students explore different types of decision support systems (DSS), including expert systems, simulation, and data mining. IS project management techniques are reinforced via a team-based DSS design project. Expectations of new entrants into IS careers, including required technical and business competencies, ethical obligations, and professional conduct, are also addressed.

4436 Communication Networks and Security

3 credit hours
 Prerequisite: CISY 1225.

This course is an introduction to computer network hardware and software required for small, medium and large enterprises. Topics include: client-server and cloud architectures, fundamental concepts of wireless networks,

TCP/IP networks, and wide area networks. Security topics such as identifying networked enterprise threats, and security technologies for the purposes of secure communications, storage, and retrieval, are also covered.

4490 Seminar in Computing and Information Systems

3 credit hours

Prerequisite: COMM 2293 and permission of Chairperson.

This course deals with selected topics in computing and information systems. It is offered when in sufficient demand, and specific topics covered may vary depending on the interest of the students and instructor.

4491 Small Business Consultancy

3 credit hours

Prerequisite: COMM 2293 and permission of Chairperson.

This course allows students to gain hands-on business experience by working with clients of the Saint Mary's University Business Development Centre. Student groups receive a project proposal outlining the requirements, information needs and services they will provide the client during the semester. Projects generally take the form of a business plan, market study, or other business-related

function and often involve financial projections. Each project provides students an opportunity to use skills learned in business courses and to understand the interrelationship between marketing, accounting, finance, and management in a practical business setting. Under supervision, students prepare a professional report and final presentation that communicate the project's results for the client.

Work groups often include students from different business disciplines and are assigned based upon the needs of the project. Groups schedule their preferred meeting times but are required to meet a minimum of three hours each week. For more information, see <http://www.smu.ca/smubdc>.

Internship. 1 semester.

4876 – 4899 Directed Study

3 credit hours

Prerequisite: COMM 2293 and permission of Chairperson.

This course is intended to supplement regular computing and information systems courses in order to meet the special needs and interests of students. Students are provided with an opportunity to study a particular subject in detail.

Computing Science (CSCI)

Co-Chairpersons	B. Hartnell
Professors	R. Dawson, A. Finbow, B. Hartnell, S. Konstantinidis, P. Lingras, M. Mastnak, P. Muir
Associate Professors	W. Finbow-Singh, J. Irving, B. Khan, S. Oore, P. Scobey
Assistant Professor	B. Mansouri
Lecturers	A. Hare, D. Rojas
Adjunct Professors	Y. Akiyama, K. Bain, N. Linney
Program Coordinator	P. Muir
Co-op Advisor	B. Khan

Department website: <http://www.smu.ca/academic/science/compsci/> Students can obtain a Bachelor of Science in Computing Science in one of two possible ways. A traditional degree in Computing Science involving an emphasis in Mathematics is offered as a minor, concentration, major, or honours. Alternatively, students interested in applying the technical aspects of Computing Science to business can obtain a major in Computing Science and Business Administration. Both of these Computing Science options have a Co-op option.

The major and honours programs in Computing Science are accredited by the Computer Science Accreditation Council of the Canadian Information Processing Society (CIPS). Not only is this an assurance of program quality, but it also allows students to earn the Information Systems Professional (ISP) designation in less time.

Note: Students are advised that possession of the minimum qualifications does not guarantee admission to a particular academic program. Limits to the number of students who can be in a particular program at any one time exist and depend very much on the number of faculty members available in a particular academic unit.

Cooperative Education Program (Co-op)

This program is designed for students in the honours or major programs who wish to gain relevant work experience while attending university. The general requirements for the Cooperative Education program can be found in the Faculty of Science regulations, Cooperative Education Section, of this *Calendar*. Interested students should contact the Department of Mathematics and Computing Science Co-op Advisor before the end of their first year.

Credit for Duplicate Courses

No student who has received credit for an advanced mathematics or computing science course may later receive credit for a mathematics or computing science prerequisite to the course without permission of the Department. With renumbered or restructured courses, students are advised that they are not eligible to take a course for credit if they already have a credit for a comparable course, even if that course was taken at a different level or under a different number.

Important Notes:

- i. Students taking a concentration, major, or honours in Computing Science may receive credit for only one of MATH 1216, BIOL 3308, PSYC 2350, GEOG 3326 and MGSC 2207,
- ii. Related courses to a maximum of nine (9) credit hours offered by other Departments may be allowed for CSCI credit, with written approval of the Computing Science Program Coordinator.

Major in Computing Science - Requirements

The requirements for the degree of Bachelor of Science with Major apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Major, in Section Three. The specific list of sixty (60) credit hours required in the major subject area (specifically the following forty-five (45) credit hours in Computing Science and fifteen (15) credit hours in Mathematics) used to satisfy 6 (d) are as follows:

1. CSCI 1226 Introduction to Computing Science and Programming
2. CSCI 1228 Advanced Computer Programming and Problem Solving
3. CSCI 2307 [MATH 2307] Theoretical Foundations of Computing Science
4. CSCI 2308 [MATH 2308] Introduction to Numerical Analysis
5. CSCI 2327 Digital Logic and Computer Architecture
6. CSCI 2341 Data Structures and Algorithms I
7. CSCI 3428 Software Engineering
8. CSCI 3430 Principles of Programming Languages
9. CSCI 3431 Operating Systems
10. MATH 1210 Introductory Calculus I
11. MATH 1211 Introductory Calculus II
12. MATH 1216 Introduction to Mathematical Statistics
13. MATH 2301 Applied Linear Algebra
14. MATH 2305 Survey of Discrete Mathematics
15. CSCI 2355 Internet Technologies and Web Programming or CSCI 2356 Mobile App Development
16. CSCI 3461 Database Systems or CSCI 4477 Data Mining
17. CSCI 4471 Computer Graphics or CSCI 4476 Computer Vision and Digital Image Processing
18. Three (3) credit hours in CSCI numbered above 2306
19. Six (6) credit hours in CSCI numbered 3000- or above

* **Note:** Students should consult the Faculty of Science program Requirement Tables available online for the complete list of program requirements, recommended Science Electives, and a suggested sequence of courses for Years 1 and 2. Students should consult with a Program Advisor or a Science Advisor to chart their courses, and to determine the best sequence of courses for Years 3 and 4.

Double Major in Computing Science and Mathematics - Requirements

The requirements for the degree of Bachelor of Science with Double Major apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Double Major, in Section Three. The specific list of required courses in Computing Science and Mathematics used to satisfy 6 (b) and 7 (a) is as follows:

of Science – Double Major, in Section Three. The specific list of required courses in Computing Science and Mathematics used to satisfy 6 (b) and 7 (a) is as follows:

1. CSCI 1226 Introduction to Computing Science and Programming
2. CSCI 1228 Advanced Computer Programming and Problem Solving
3. CSCI 2307 [MATH 2307] Theoretical Foundations of Computing Science
4. CSCI 2308 [MATH 2308] Introduction to Numerical Analysis
5. CSCI 2327 Digital Logic and Computer Architecture
6. CSCI 2341 Data Structures and Algorithms I
7. CSCI 3428 Software Engineering
8. CSCI 3430 Principles of Programming Languages
9. CSCI 3431 Operating Systems
10. MATH 1210 Introductory Calculus I
11. MATH 1211 Introductory Calculus II
12. MATH 1216 Introduction to Mathematical Statistics
13. MATH 2301 Applied Linear Algebra
14. MATH 2305 Survey of Discrete Mathematics
15. MATH 2310 Introductory Analysis
16. MATH 2311 Intermediate Calculus
17. MATH 2321 Linear Algebra II
18. MATH 3441 Real Analysis I
19. MATH 4420 Abstract Algebra I
20. CSCI 2355 Internet Technologies and Web Programming or CSCI 2356 Mobile App Development
21. CSCI 3461 Database Systems or CSCI 4477 Data Mining
22. CSCI 4471 Computer Graphics or CSCI 4476 Computer Vision and Digital Image Processing
23. Three (3) credit hours in CSCI numbered 2306 or above
24. Three (3) credit hours in CSCI numbered 3000- or above
25. Six (6) credit hours in MATH numbered 3000 or above

* **Note:** Students should consult the Faculty of Science program Requirement Tables available online for the complete list of program requirements, recommended Science Electives, and a suggested sequence of courses for Years 1 and 2. Students should consult with a Program Advisor or a Science Advisor to chart their courses, and to determine the best sequence of courses for Years 3 and 4.

Double Major in Computing Science and Other Science (not Mathematics) - Requirements

The requirements for the degree of Bachelor of Science with Double Major apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Double Major, in Section Three. To satisfy 7(a) for CSCI, students must fulfill requirements 1-18 of the Computing Science major listed above.

Honours in Computing Science - Requirements

The requirements for the degree of Bachelor of Science with Honours apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Honours, in Section Three. Students with a

minimum CGPA of 3.00 are encouraged to apply for admission to the honours program. The specific list of credit hours required to satisfy 11(a) for a total of sixty-three (63) credit hours in CSCI and twenty-one (21) credit hours in MATH include:

1. All the requirements for the Major
2. CSCI 3451 Theory of Computation
3. Nine (9) additional credit hours in CSCI numbered 2306 or above
4. Six (6) additional credit hours in CSCI at the 3000-level or above. It is recommended that CSCI 4500 Research Thesis be used to satisfy this requirement
5. Six (6) additional credit hours in MATH numbered 3000- or above

Students must achieve a minimum DGPA of 3.00 on those courses presented in fulfillment of the Bachelor of Science with Honours in Computing Science requirements.

The complete list of required credits for the program and the suggested sequence of courses for years 1 and 2 can be found on the Faculty of Science website listings for Program Requirement Tables. Students should consult with the Program Advisor or a Science Advisor for the suggested best sequence of courses for years 3 and 4.

Double Honours in Computing Science and Mathematics - Requirements

The requirements for the degree of Bachelor of Science with Honours apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Double Honours, in Section Three. To satisfy 11(a) students must fulfill the following:

1. Requirements 1 – 22 listed for the double major
2. CSCI 3451 Theory of Computation
3. Three (3) additional credit hours in MATH at the 3000-level or above
4. One of the following:
 - o Six (6) additional credit hours of CSCI 4500 Research Thesis
 - o Six (6) additional credit hours of MATH 4500 Research Thesis
 - o Three (3) credit hours in CSCI numbered 3000 or above and three (3) credit hours in MATH numbered 3000 or above

The suggested sequence of courses for years 1 and 2 can be found on the Faculty of Science website listings for Program Requirement Tables. Students should consult with the Program Advisor or a Science Advisor for the suggested best sequence of courses for years 3 and 4.

Students must achieve a minimum DGPA of 3.00 on those courses presented in fulfillment of the Bachelor of Science with Double Honours in Computing Science and Mathematics requirements.

Double Honours in Computing Science and Other Science (not Mathematics) - Requirements

The requirements for the degree of Bachelor of Science with Double Honours apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Double Honours, in Section Three. To satisfy the honours requirements 11(a) students must fulfill:

- All of the specified courses in CSCI and MATH required for majors in Computing Science
- Three (3) additional credit hours in MATH courses numbered 2306 or above
- Six (6) additional credit hours in CSCI courses numbered 2306 or above

Concentration in Computing Science - Requirements

The requirements for the degree of Bachelor of Science – General -with Concentration apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – General (with Concentration), in Section Three. The specific thirty-six (36) credit hours in courses required to satisfy 3(d) are as follows:

1. CSCI 1226 Introduction to Computing Science and Programming
2. CSCI 1228 Advanced Computer Programming and Problem Solving
3. CSCI 2327 Digital Logic and Computer Architecture
4. CSCI 2341 Data Structures and Algorithms I
5. Eighteen (18) credit hours in CSCI numbered 2306 or above
6. MATH 1210 Introductory Calculus I
7. MATH 1211 Introductory Calculus II

Minor in Computing Science - Requirements

It is possible to obtain a minor in Computing Science by completing thirty (30) credit hours in Computing Science as follows:

1. CSCI 1226 Introduction to Computing Science and Programming
2. CSCI 1228 Advanced Computer Programming and Problem Solving
3. CSCI 2327 Digital Logic and Computer Architecture
4. CSCI 2341 Data Structures and Algorithms I
5. Eighteen (18) credit hours in CSCI numbered 2306 or above

Major in Computing Science and Business Administration

This is an interdisciplinary four year degree combining Computing Science courses, taught in the Department of Mathematics and Computing Science, with a selection of courses taught in the Sobey School of Business. This program is designed to meet the increasing demand for people with a solid technical knowledge of Computing Science who also understand the application of this technology to business problems.

To declare this program as a major, students should consult with the Computing Science Program Coordinator in the Department of Mathematics and Computing Science. The courses listed below are required. Due to restrictions associated with the prerequisite structure, it is strongly

recommended that students take courses in the sequence shown below. Students need to have a minimum grade point average (GPA) of 2.20 in required CSCI and MATH courses, and a minimum GPA of 2.20 in the required Business courses.

Year 1:

- ENGL 1205 Introduction to Literature
- CSCI 1226 Introduction to Computing Science
- CSCI 1228 Advanced Computer Programming and Problem Solving
- MATH 1210 Introductory Calculus I
- MATH 1216 Introduction to Mathematical Statistics
- MGMT 1281 Introduction to Business Management
- ECON 1201 Principles of Economics: Micro
- ECON 1202 Principles of Economics: Macro
- MGSC 1205 Quantitative Methods I
- Three (3) credit hours of Electives

Year 2:

- CSCI 2327 Digital Logic and Computer Architecture
- CSCI 2355 Internet Technologies and Web Programming
- CSCI 2341 Data Structures and Algorithms I
- Cisy 2320 Business Applications Programming
- ACCT 2241 Introductory Financial Accounting
- ACCT 2242 Introductory Managerial Accounting
- MKTG 2270 Introduction to Marketing
- MGMT 2383 Micro Organizational Behaviour
- MGMT 2384 Macro Organizational Behaviour
- Three (3) credit hours of Science Electives (not CSCI)

Year 3:

- Six (6) credit hours in CSCI numbered 2306 or above
- MATH 2301 Applied Linear Algebra
- ACCT 3332 Planning and Control
- FINA 2360 Business Finance I
- FINA 3361 Business Finance II
- Nine (9) credit hours in Science (not CSCI)
- Three (3) credit hours in Humanities

Year 4:

- Twelve (12) credit hours in CSCI numbered 3000 or above
- MGMT 4489 Strategic Management
- ACCT 3323 Management Information Systems
- Cisy 4425 Systems Analysis and Design
- Six (6) credit hours in Arts
- Three (3) credit hours of Science Electives (not CSCI)

Notes:

- (i) For students in the Computing Science and Business Administration program, MATH 1210 can replace MGSC 1206 as a prerequisite for other business courses.
- (ii) For students in the Computing Science and Business Administration program, CSCI 1226 can replace Cisy 1225 as a prerequisite for other business courses. However, a knowledge of the topics covered in Cisy 1225 will be assumed in other courses.
- (iii) Students may not receive credit for Cisy 1225 if taken concurrently with or subsequent to CSCI 1226

- (iv) Cisy2320 may be acceptable as a CSCI elective above 2306 and below 3000 level with written permission of the Department.
- (v) Cisy 3327 may be acceptable in lieu of CSCI 2355 with written permission of the Department. Students cannot receive credits for both Cisy 3327 and CSCI 2355.
- (vi) Cisy 4425 may be acceptable in lieu of CSCI 3428 with written permission of the Department. Students cannot receive credit for both Cisy 4425 and CSCI 3428
- (vii) Cisy 3326 may be acceptable in lieu of CSCI 3461 with written permission of the Department. Students cannot receive credits for both Cisy 3326 and CSCI 3461.
- (viii) Cisy 4436 may be acceptable in lieu of CSCI 3421 with written permission of the Department. Students cannot receive credits for both Cisy 4436 and CSCI 3421.

Course Descriptions

1226 Introduction to Computing Science and Programming

3 credit hours

Prerequisite: There is no formal prerequisite for this course; however, some prior experience with analytical thinking is highly recommended.

This course is designed to introduce the student to some of the key concepts in computing science and simultaneously provide introductory hands-on experience using a modern programming language. General topics include a brief history of computing; the place of hardware, software, and policies in any computing environment; a high-level view of the components of a computing system; and the tools one can expect to find in any programming environment. Programming language topics include input/output; simple data types; operators and expressions; looping and decision-making control constructs; subprograms and parameter passing; overall program structure and programming style considerations. Problem-solving and program-design strategies include divide-and-conquer and top-down design with step-wise refinement. Students design algorithms with data input and output to solve particular problems, and later implement those solutions as computer programs in the current programming language of choice.

Classes 3 hrs. and lab 3 hrs. per week.

1227 Computer Programming and Problem Solving

3 credit hours

Prerequisite: CSCI 1226

Students apply basic programming and problem-solving skills to typical problems one might encounter when working in any scientific field. Problems include creation, analysis and manipulation of textual and/or binary data sets of various kinds. Students write programs in a suitable language to perform these activities, but may also be introduced to various software packages that can be used for similar purposes.

Classes 3 hrs. and lab 3 hrs. per week.

1228 Advanced Computer Programming and Problem Solving

3 credit hours
Prerequisite: CSCI 1226

This course is a continuation of CSCI 1226, and is designed to prepare students for higher-level courses, especially CSCI 2341. Students continue to solve problems, of increased complexity, in the programming language used in CSCI 1226, and may also be exposed to problem solving in a second programming language, if deemed appropriate. Classes 3 hrs. and lab 3 hrs. per week.

2301 Data Structures and Numerical Methods for Engineers

3 credit hours
Prerequisites: CSCI 1226 or EGNE 1204

This class introduces students to system analysis and software techniques. Topics covered include data structures such as stacks, queues, multiple linked lists, searching and sorting algorithms, and their implementation in an object-oriented programming language. Students use linear algebra and numerical methods in engineering examples, while learning to implement properly structured solutions.

Note: This course is intended only for Engineering students. Computing Science students (CPSC or CSCI) should take CSCI 2341 instead. No credit will be given for this course simultaneously with or subsequent to CSCI 2341.

Classes 3 hrs. and recitation 1.5 hrs. per week.

2307 Theoretical Foundations of Computing Science [MATH 2307]

3 credit hours
Prerequisites: CSCI 1228, and MATH 2305

This course complements CSCI 2341. It uses various mathematical concepts to define tools and address problems of fundamental status in Computing Science. Topics involve notions related to graphs, formal languages and computability. Moreover, depending on the focus, other fundamental tools may be considered, which are utilized in topics such as database modeling, information coding, complexity, knowledge modeling, program correctness and automated reasoning.

Classes 3 hrs. and recitation 1.5 hrs. per week.

2308 Introduction to Numerical Analysis [MATH 2308]

3 credit hours
Prerequisite: MATH 1211 and CSCI 1226 or equivalent programming experience.

Discussion of errors in numerical analysis. Theoretical and practical considerations of numerical procedures in non-linear equations in one variable, systems of linear equations, and systems of non-linear equations, interpolation, polynomial approximation and integration.

Classes 3 hrs. and recitation 1.5 hrs. per week.

2327 Digital Logic and Computer Architecture

3 credit hours
Prerequisite: CSCI 1228

This course considers data representation, digital logic and computer organization at the assembly language level. The student is introduced to the concept of computation at the digital logic level by studying devices for storing data, transferring data, and making decisions based on data patterns (e.g. flip-flops, registers, tri-states, bus structures, multiplexers, comparators, and adders). Computer organization includes the fetch—execute cycle of a processor, addressing modes of the machine, the data path, the memory hierarchy, and the input/output subsystem.

Classes 3 hrs. and recitation 1.5 hrs. per week.

2341 Data Structures and Algorithms I

3 credit hours
Prerequisite: CSCI 1228

This course introduces the fundamental Abstract Data Types of computing science, along with their availability and usage in the context of a modern programming language. These include contiguous and non-contiguous lists, stacks, queues, trees, maps, sets, and hash tables. A number of widely used algorithms, searching and sorting in particular, are discussed, along with their complexity. Emphasis in this course is placed on understanding when and how to use the various structures and algorithms studied, and students implement, using the programming language of choice, problem solutions that will help them gain that understanding.

Classes 3 hrs. and recitation 1.5 hrs. per week.

2355 Internet Technologies and Web Programming

3 credit hours
Prerequisite: CSCI 1227 or CSCI 1228

This course will discuss a number of fundamental architectures, protocols and scripting languages for displaying and transferring data of various kinds in the context of the Internet and the World Wide Web. Students will gain experience with web programming concepts and techniques.

Classes 3 hrs. and recitation 1.5 hrs. per week.

2356 Mobile App Development

3 credit hours
Prerequisite: CSCI 1226 or equivalent

The emergence of new technologies makes it possible to develop apps that can be run on multiple devices (phablets, smart phones, smart TVs, and tablets). The objective of this course is to identify important features that should be part of an app and then introduce the necessary technologies for their implementation. The course will be appealing to computing as well as other science and engineering students.

Classes 3 hrs. and recitation 1.5 hrs. per week

3309 Selected Topics in Numerical Analysis [MATH 3309]

3 credit hours

Prerequisite: CSCI 2308 [MATH 2308] or permission of instructor.

Select topics for MATH 2308 [CSCI 2308] may be further explored. Other topics may include linear least squares, eigenvalues and eigenvectors and optimization.

Classes 3 hrs. and recitation 1.5 hrs. per week.

3328 Assembly Level Machine Organization and Language

3 credit hours

Prerequisite: CSCI 2327

This course builds on the experience obtained in CSCI 2327 by examining some topics in more detail and applying them to a particular processor. The students also learn assembly language programming for the processor.

Classes 3 hrs. and recitation 1.5 hrs. per week.

3342 Data Structures and Algorithms II

3 credit hours

Prerequisite: CSCI 2341

This course continues the study of data structures and algorithms begun in CSCI 2341, with the emphasis now shifting to implementation details. Students will be required to solve problems using both contiguous and linked structures, using dynamic data storage when and where appropriate. A selection of algorithms using these structures will also be discussed.

Classes 3 hrs. and recitation 1.5 hrs. per week.

3421 Data Communications and Networking

3 credit hours

Prerequisites: CSCI 2327

Students examine the structure, operation, and APIs of computer communication networks are examined. Topics include protocols (such as IP, TCP, and HTTP) network architecture, administration, routing, address resolution, and supporting technologies.

3428 Software Engineering

3 credit hours

Prerequisite: CSCI 2341.

In this course, students obtain experience in the development of large scale software systems. The software life-cycle is studied in detail. Issues of software documentation, reliability, and maintenance are discussed. Several strategies for specification (formal and informal), design (functional, top-down, object-oriented, etc.), implementation, and verification and validation are considered. The course includes a major project that will expose students to the stages of the software life-cycle. Students should expect to work in teams.

3430 Principles of Programming Languages

3 credit hours

Prerequisite: CSCI 2341

This course is designed to introduce the student to some of the key concepts underlying all programming languages by comparing and contrasting major programming language paradigms such as procedural, functional, logic, object-oriented, and parallel. Topics may include history and evolution of programming languages; programming language design goals, the place of programming languages in the programming environment; virtual machines; data representation, manipulation and sharing; type checking; storage management; control structures; language mechanisms that support modularity; syntax and semantics. The laboratory component will provide hands-on experience with several different languages from different paradigms.

Classes 3 hrs. and recitation 1.5 hrs. per week.

3431 Operating Systems

3 credit hours

Prerequisite: CSCI 2327

Students will study various aspects of operating systems with emphasis on the following topics: history, evolution, and philosophies; tasking and processes; process coordination and synchronization; scheduling and dispatch; physical and virtual memory organization; device management; file systems and naming; security and protection; communications and networking; distributed operating systems; and real-time concerns. Examples of two or more operating systems will be used to gain some systems programming experience.

Classes 3 hrs. and recitation 1.5 hrs. per week.

3451 Theory of Computation

3 credit hours

Prerequisite: CSCI 2341 and CSCI 2307 [MATH 2307]

Students are introduced to some of the fundamental theoretical concepts in computing science. Students are also introduced to the concepts of decidable, P, NP, NP-complete, and NP-hard problems. Students study two classes of languages of interest to computing scientists, namely, regular and context free languages, and corresponding automata for recognizing these languages, are also studied. A brief discussion on the semantics of programming languages will be included. Turing machines are used to explore the concept of decidability along with examples of decidable and undecidable problems.

3461 Database Systems

3 credit hours

Prerequisite: CSCI 2341 and MATH 2305

This course provides an introduction to the design, implementation, use and maintenance of databases. Topics include: data models such as the entity-relationship model, the relational model, and the object-oriented model; relational languages such as relational algebra, relational calculus, and SQL; the theory of normal forms of database

design; use of indexes for efficient data retrieval; and database implementation using a commercial database management system. Other topics may be included, such as query optimization, database control, and distributed database systems.

3462 File Structures

3 credit hours

Prerequisite: CSCI 2341 and MATH 2305

This course provides the student with the tools and techniques required to organize and efficiently maintain data on a secondary storage devices. The course will consider the implementation and performance of structures such as fields, records and buffers; primary and secondary indexes; multi-level indexes and B-trees; indexed sequential files; and hash structures. Also included are some discussion of advanced sort and merge algorithms for secondary storage.

3465 Object-Oriented Programming

3 credit hours

Prerequisite: CSCI 2341

This course provides an introduction to object-oriented analysis, design, and programming. Emphasis is on the creation of reusable software. The object-oriented approach to software development is compared and contrasted with other approaches, such as the classical "structured" approach. Students gain hands-on experience by programming in a suitable object-oriented programming language.

Classes 3 hrs. and recitation 1.5 hrs. per week.

3475 Human Computer Interaction

3 credit hours

Prerequisite: CSCI 1227 or CSCI 1228 or Cisy 2320, or permission of the instructor

The objective of this course is to teach future software developers, designers and managers to avoid pitfalls of wasting time and energy building software that no one will be able to use. This is accomplished by leading the students through a design process, from identifying and learning about the users/clients to creating and finally evaluating prototypes. Both classic and cutting-edge interaction technologies as they relate to human factors are considered. This is a project-based course.

Classes 3 hrs. and recitation 1.5 hrs. per week.

3482 Artificial Intelligence

3 credit hours

Prerequisite: CSCI 2341 and MATH 2305

Students consider philosophical, mathematical, experimental, and implementation aspects of such topics as problem solving, searching, game playing, genetic algorithms, learning, neural networks, natural language processing, vision, knowledge representation, logic, expert systems, reasoning under uncertainty, fuzzy sets, planning, and robotics. Students will also gain practical experience

using one or more of the popular AI tools and/or by adding AI modules to an existing game.

3826 – 3849 Special Topics in Computing Science

3 credit hours

Prerequisite: permission of instructor.

Approved seminar courses dealing with specialized subject-matter that are announced from time to time by the Department.

4408 Numerical Solution of Initial Value Problems

[MATH 4408]

3 credit hours

Prerequisite: CSCI 2308 [MATH 2308] or permission of instructor.

This course considers the numerical solution of initial value ordinary differential equations. Topics may include multi-step methods, Runge-Kutta methods, stability, stiffness, step-size selection, local error, etc.

4409 Numerical Solution of Boundary Value Ordinary Differential Equations [MATH 4409]

3 credit hours

Prerequisite: CSCI 2308 [MATH 2308] or permission of instructor.

This course is concerned with the numerical solution of boundary value ordinary differential equations. Topics may include finite difference methods, shooting methods, collocation methods, conditioning, mesh selection, error estimation, etc.

4423 Cryptography

3 credit hours

Prerequisite: CSCI 2341 and MATH 2305

This course provides an introduction to various aspects of data security. Possible topics include: classical encryption methods such as Vignere and Vernan ciphers; the Data Encryption Standard; key distribution methods and public key encryption; and authentication using digital signatures. Applications of these methods in the design of protocols for data privacy and security are studied.

4427 Computational Methods in Graph Theory [MATH 4427]

3 credit hours

Prerequisite: MATH 2311 or MATH 2320 or MATH 2301 or permission of instructor.

Various graph theoretic algorithms and their application to different problems are discussed. Topics are chosen from the following: the connector problem, the shortest path problem, the Chinese Postman problem and Euler trails, matchings and their applications to the personnel and optimal assignment problems, colouring problems (with reference to timetabling) and flows in networks.

4452 Algorithm Analysis

3 credit hours

Prerequisite: CSCI 2341 and MATH 2305

Key techniques of efficient algorithm design are discussed including: divide and conquer; greedy methods; dynamic programming; graph traversal; and change of representation. Analyzing algorithm performance and lower bounds for various problems are studied.

4463 Numerical Software

3 credit hours

Prerequisite: CSCI 2341 and CSCI 2308 [MATH 2308]

Software development issues in the area of numerical analysis are studied, and a number of numerical software tools such as Fortran90, Matlab, and Maple are examined. The main course project is the development of a numerical software package by students working in programming teams in a selected area of numerical algorithms.

Classes 3 hrs.

4471 Computer Graphics

3 credit hours

Prerequisite: MATH 1211, MATH 2301, and CSCI 2341

This course is an overview of the principles and algorithms of computer graphics. Topics include: representation of primitive objects (curves, and surfaces), texture mapping, radiometry, graphic toolkits, and animation systems. Typical projects have ranged from coding animations to writing a ray tracer.

Classes 3 hrs. and recitation 1.5 hrs. per week.

4474 Text Mining and Social Network Analysis

3 credit hours

Prerequisite: CSCI 2341

This course considers manipulations on a bibliographic database. Topics covered include an introduction and basic definitions, inverted file structures, automatic indexing, prototype systems, retrieval and refinements and natural language processing.

4476 Computer Vision and Digital Image Processing

3 credit hours

Prerequisite: CSCI 2341

This course provides an introduction to the concepts used in computer vision and digital image processing. Computer vision techniques extract information from an image, while image processing techniques modifies the image for viewing by the human eye. Topics covered include the following: sampling and resolution, image processing, edge detection, segmentation, discrete image transforms, restoration and enhancement, and image compression.

4477 Data Mining

3 credit hours

Prerequisite: CSCI 2341.

Data mining refers to a family of techniques used to detect interesting knowledge in data. With the availability of large databases to store, manage and assimilate data, the

new thrust of data mining lies at the intersection of database systems, artificial intelligence and algorithms that efficiently analyze data. The course will use concepts from pattern recognitions, statistics, data analysis and machine learning. The size of databases and high complexity of techniques present many interesting computational challenges.

4500 Research Thesis

6 credit hours

Prerequisite: honours standing and permission of the Department.

The student conducts a research project in computing science under the supervision of any member of the Department. The student will submit a thesis and present it orally.

4826 - 4849 Special Topics in Computing Science

3 credit hours

Prerequisite: permission of instructor.

These courses cover advanced topics in computing science chosen according to the interests of the students and instructor, and requires some measure of independence and initiative from the student.

Criminology (CRIM)

Chairperson	J. Livingston
Professors	D. Crocker
Associate Professors	S. Schneider, A. Schulte-Bockholt,
Assistant Professors	A. Carver, R. Collins, M. Gómez, J. Livingstone,
Graduate Coordinator	S. Schneider
Adjunct Professors	S. Bell, L. Bijos,

Department Vision and Mission

The Department Criminology offers programs that provide students with a strong undergraduate experience in Criminology. The Department also offers a Master's degree in Criminology. Courses are also mounted that support such other academic programs as those in Asian Studies, Atlantic Canada Studies, International Development Studies, Linguistics, and Women and Gender Studies. For details on graduate programs, refer to the Graduate Academic Calendar.

The Bachelor of Arts degree in Criminology, including the honours program, provides students with an opportunity for focused study of various forms of regulation, policing, punishment, justice, law, delinquency and misbehaviour. The development of a coherent program at the undergraduate level enables students to obtain a solid foundation in Criminology for further study at the graduate level; for the pursuit of Criminology-related disciplines; and for careers in the related professions. A structured honours program is included for outstanding undergraduate students intending to pursue a Master's degree.

NOTE: As of September 2018 the Department of Sociology and Criminology is officially divided into separate departments of Criminology, Social Justice and Community Studies, and Sociology. This is a result of a collegial consultation process beginning December 1, 2016 through the Academic Vice President Academic and Research, the Dean of Arts and the Department of Sociology and Criminology. Be sure to check out the program offerings and requirements of these new units in their separate sections of this Academic Calendar.

Major Program

For admission to the program, students must have completed SOCI 1210 with a minimum grade of C.

To major in Criminology, students must complete thirty-six (36) credit hours as follows:

- SOCI 1210 Introductory Sociology (minimum grade C)
- CRIM 2303 Introduction to Criminology
- CRIM 3010 [SOCI 3010] Classical Theory
- CRIM 3011 Contemporary Criminological Theory
- CRIM 3100 [SOCI 3100] Qualitative Research Methods

- CRIM 3102 [SOCI 3102] Quantitative Research Methods
- CRIM 3304 Canadian Criminal Justice System
- Nine (9) credit hours in CRIM at the 3000 level
- Six (6) credit hours in CRIM or SOCI at the 4000 level

FOR STUDENTS COMPLETING A DOUBLE MAJOR IN SOCIOLOGY AND CRIMINOLOGY, ONLY SIX (6) CREDIT HOURS OF CROSS-LISTED COURSES CAN BE DOUBLE COUNTED.

Suggested Schedule

The following program is recommended by the Department for students majoring in Criminology:

Year 1:

- ENGL 1205 Introduction to Literature
- 9 credit hours of introductory courses in the following humanities (except PHIL 1200): Classics; History; Religious Studies; Modern Languages courses on literature and culture (a maximum of 6 credit hours can be counted from any one area).
- SOCI 1210 Introductory Sociology with a minimum grade of C.
- Nine (9) credit hours in Social Sciences
- Six (6) credit hours from one or two of the following: PHIL 1200 Critical Thinking, Mathematics, a language other than English, or a natural science other than Psychology.

Year 2:

- CRIM 2303 Introduction to Criminology
- CRIM 3304 Canadian Criminal Justice System
- Eighteen (18) credit hours in Arts at the 2000 level or above
- Six (6) credit hours of electives

Year 3:

- CRIM3010 [SOCI 3010] Classical Theory
- CRIM 3011 Contemporary Criminological Theory
- CRIM 3100 Qualitative Research Methods
- CRIM 3102 Quantitative Research Methods
- Six (6) credit hours in CRIM at the 3000 level
- Six (6) credit hours in Arts at the 2000 level or above
- Six (6) credit hours of electives

Year 4:

- Three (3) credit hours in CRIM at the 3000 level
- Six (6) credit hours in CRIM or SOCI at the 4000 level
- Three (3) credit hours at the 3000 level not listed above from SOCI or CRIM
- Six (6) credit hours in Arts at the 2000 level or above
- Twelve (12) credit hours of electives

Honours Program

This is a selective program. Applicants for admission must:

- have completed at least 60 credit hours;
- have a cumulative GPA of at least 3.00 out of 4.3;

- have a cumulative GPA in Criminology courses of 3.30 out of 4.3;
- have a faculty member's written agreement to serve as a supervisor for the honours thesis, CRIM 4601.

The deadline for application is 1 April of the year before students wish to begin the honours program.

For honours in Criminology, students must complete sixty (60) credit hours as follows:

- Major Core Courses
 - SOCI 1210 Introductory Sociology (minimum grade C)
 - CRIM 2303 Introduction to Criminology
 - CRIM 3304 Canadian Criminal Justice System
 - CRIM 3010 [SOCI 3010] Classical Theory
 - CRIM 3011 Contemporary Criminological Theory
 - CRIM 3100 [SOCI 3100] Qualitative Research Methods
 - CRIM 3102 [SOCI 3102] Quantitative Research Methods
- Honours Core Courses
 - CRIM 4501 Advanced Theory
 - CRIM 4502 Advanced Research Methods
 - CRIM 4600 Honours Thesis Research Preparation
 - CRIM 4601 Honours Thesis Writing
- Six (6) credit hours in CRIM at the 3000 level
- Twelve (12) credit hours in CRIM at the 4000 level.

To graduate, students must maintain a cumulative GPA of 3.30 out of 4.3 in Criminology courses as well as earn a grade of B+ in CRIM 4601.

Concentration in Criminology

Students in a ninety (90) credit hour B.A. program with a concentration in CRIM are required to complete twenty-four (24) CRIM credit hours with a minimum grade point average of 2.00. Courses cross-listed with Sociology may not be double counted if students choose to complete a double concentration in Sociology and Criminology. Required courses are as follows:

- SOCI 1210 Introductory Sociology (minimum grade C)
- CRIM 2303 Introduction to Criminology
- CRIM 3304 Canadian Criminal Justice System
- 15 additional credit hours in CRIM

Minor Program in Criminology

The minor in criminology requires twenty-four (24) credit hours in criminology completed with a minimum grade point average of C. Required courses include:

- SOCI 1210 Introductory Sociology (minimum grade C)
- CRIM 2303 Introduction to Criminology
- CRIM 3304 Canadian Criminal Justice System
- An additional 15 credit hours in CRIM at the 2000, 3000, or 4000 level

Note: For students enrolled in the minor program in criminology and the major program in sociology, only 6 credit hours of cross-listed courses may be double counted to meet program requirements.

Course Descriptions

2303 Introduction to Criminology

3 credit hours

Prerequisite: SOCI 1210

This course introduces students to contemporary issues, problems and themes pertinent to the field of Criminology in Canada.

3010 Classical Theory [SOCI 3010]

3 credit hours

Prerequisite: SOCI 1210

This course introduces students to the major themes of classical Sociological and Criminological theory. Students will examine key debates from the 18th and 19th century which have influenced contemporary Sociological and Criminological Theory.

Note: Students may not receive credit for CRIM 3010 if they have already received credit for CRIM 2300 or SOCI 2362.

3011 Contemporary Criminological Theory

3 credit hours

Prerequisite: CRIM/SOCI 3010

This course introduces students to the major themes of contemporary criminological theory including the influence of class, gender, race, media and politics in the definition, explanation, and regulation of crime and criminal behaviour.

Note: Students may not receive credit for CRIM 3011 if they have already received credit for CRIM 2301.

3100 Qualitative Research Methods [SOCI 3100]

3 credit hours

Prerequisite: SOCI 1210

This course introduces students to sociological and criminological research that uses qualitative methods. The course will examine qualitative methodology, research strategies, designs and methods of qualitative data collection and analysis, including the contributions of feminist scholarship. Students will also learn different ways of interpreting qualitative data. Approaches covered in this class may include grounded theory, participatory action research, historical and textual methods, and participant-observation/ethnography, among others.

Class 3 hrs and Lab 75 min/week

Note: Students may not receive credit for CRIM 3100 if they have already received credit for CRIM 2302 or SOCI 2365.

3102 Quantitative Research Methods [SOCI 3102]

3 credit hours

Prerequisite: SOCI 1210

This course introduces students to quantitative methodology, research strategies, designs, methods of quantitative data

collection and statistical analysis. A key feature of this class will involve interpreting and critiquing statistical data, which is a major source of information for sociologists and criminologists.

Class 3 hrs and Lab 75 min/week

Note: Students may not receive credit for CRIM 3100 if they have already received credit for CRIM 2302 or SOCI 2365.

3205 Restorative Justice in Theory

3 credit hours

Prerequisites: SOCI 1210; CRIM 2303; CRIM 3304

Restorative justice defines crime as a violation of social or interpersonal relationships, rather than a violation of an official rule or regulation. Students examine how restorative justice offers a wholesale shift in thinking about wrongdoing challenging the common belief that justice is best achieved through punishment and retribution.

3304 Canadian Criminal Justice System

3 credit hours

Prerequisite: SOCI 1210

Students examine the process of the criminal justice system in Canada. The roles, powers, and discretion of the police, the courts, and the correctional system are examined.

3376 Atlantic Canadian Film & TV

[ACST 3376/SOCI 3376/WMST3376]

3 credit hours

3435 Gender and Sex in 21st Century Media [WMST 3435/SOCI 3435]

3 credit hours

Prerequisites: SOCI 1211 (As per usual for 3000 – Arts / SOCI courses)

3505 Prisons and Punishment [SOCI 3505]

3 credit hours

Prerequisite: SOCI 1210

Drawing upon literature from the sociology of punishment, this course situates Western penal regimes within historically-specific economic, socio-political, and cultural frameworks. The emergence and re-emergence of a broad range of practices for punishing and regulating ‘problem populations’ will be a central theme for the course.

3507 Policing and Society [CRIM 3507]

3 credit hours

Prerequisite: SOCI 1210

In this course students will explore issues related to the policing of modern societies. Topics will include the exercise of police powers and discretion, police misconduct, and policing in a multicultural society.

3509 Victims and Criminal Justice [SOCI 3509]

3 credit hours

Prerequisite: SOCI 1210

In criminal justice systems, the role of the victim has expanded considerably. It is not clear if these developments have resulted in better treatment of victims or more justice in broader ways. To explore these issues students will learn about the historic roots of “victimology”, and critical theoretical perspectives on the social construction of victims and their needs and rights.

3510 Criminal Law [SOCI 3510]

3 credit hours

Prerequisite: SOCI 1210

This course is designed to familiarize students with Canadian criminal law. The course will focus on topics such as the history, nature and functions of criminal law, its elements and role in a democratic society, exemptions from criminal responsibility, its principles and procedures, and its administration and enforcement.

3511 Youth Crime and Moral Panics [SOCI 3511]

3 credit hours

Prerequisite: SOCI 1210

This course takes a historical/comparative approach to the study of youth crime in Canada. It examines changing definitions and perceptions of youth crime, contemporary crime patterns, correlates and their explanations. The course emphasizes a critical approach to understanding youth crime statistics and their changes over the last 100 years. The overall objective of the course is to develop in students a critical appreciation of moral panics about youth crime.

3518 State, Crime, and Power in Developing Countries [SOCI 3518]

3 credit hours

Prerequisite: SOCI 1210

This course is an interdisciplinary exercise designed for students in Criminology, International Development Studies, Political Science, and Sociology. Students will: (a) learn about the colonial origins of crime in Latin America; (b) be introduced to the basics of Latin American criminological thinking such as Liberation Criminology; (c) explore the various dimensions of criminal activity (street, organized, state and corporate) in developing countries; and (d) study the detrimental effects of crime, corruption and abuse of power on the societies of the South.

3519 Terrorism: Perspective and Policy [SOCI 3519]

3 credit hours

Prerequisites: SOCI 1210

This course is a comprehensive examination of how terrorism movements have comparatively developed. This includes an analysis of methods, typical motivations, and outcomes. Academic studies on terrorism and counter-terrorism are contrasted with responses to terrorism.

3526 Organized Crime [SOCI 3526]

Prerequisite: SOCI 1210

3 credit hours

This course provides an introduction to the subject of organized crime and its control in North America. The

course applies sociological, criminological, and economic theory to understand the rise and proliferation of criminal organizations and organized crime activities. It also explores dominant organized crime genres, activities, and recent trends. The course also explores strategies and laws to combat organized crime.

3546 Crime and the Media [SOCI 3546]

3 credit hours

Prerequisite: SOCI 1210

This course focuses on the depiction of crime in various media of mass communication. Areas of study include corporate crime, violent crime, gangs, organized crime and terrorism. This course also examines how gender, race and class are related to the way crime is depicted in the mass media

3610 Practicum in Social Development [SOCI 3610]

3 credit hours

Prerequisite: SOCI 1210

Students explore factors that put children and youth at risk of future criminal and anti-social behavior. Students gain practical experience by tutoring youths from a high risk environment. In- class and online lectures provide a theoretical framework and training.

3800 – 3825 Special Topics in Criminology [SOCI 3800 – 3825]

6 credit hours

Prerequisites: SOCI 1210

These courses are designed to enable a student to examine particular criminological issues in detail. They will be offered according to faculty availability and expertise.

3826 – 3849 Special Topics in Criminology [SOCI 3826 – 3849]

3 credit hours

Prerequisites: SOCI 1210

These courses are designed to enable a student to examine particular criminological issues in detail. They will be offered according to faculty availability and expertise.

4205 Restorative Justice Practicum

3 credit hours

Prerequisite: permission of the instructor

Students receive training in the practice of restorative justice by a local agency. Students participate in restorative justice sessions or work on a practical project leading to the development of restorative justice programs in the province. The course is a service learning course and students will be reflecting on their experiences of restorative justice based on the theory of the practice.

NOTE: Students must be available to participate in restorative justice training in the fall semester, prior to registering for the course. Contact instructor for details.

4210 Forced Migration and Refugees [SOCI 4210]

3 credit hours

Prerequisites: SOCI/CRIM 3010, SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

This course will critically examine the key determinants, processes, and consequences of internal displacement and forced migration across borders through the analysis of case studies from around the world. Topics in the course will include, selectively, contemporary refugee issues, gender violence in conflict zones, resettlement, repatriation, refugees and development, asylum-seekers, and the Canadian and UN refugee protection systems and various international conventions.

4303 Canadian Penal Policy, Practices, and Research

3 credit hours

Prerequisites: CRIM/SOCI 3010, SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

Through critical socio-legal inquiry, this course examines the effects of progressive and oppressive practices characterizing the administration of contemporary Canadian prisons. Progressive initiatives may include prisoners' rights, the rule of law, the Gladue decision, and harm reduction initiatives. Repressive control strategies may include risk management discourse and treatment regimes, Dangerous Offender designations, Aboriginal and gender-specific programmes, involuntary transfers, and solitary confinement.

4327 Seminar in Crime and Media [SOCI 4327/WMST 4327]

3 credit hours

Prerequisites: SOC 1210

4404 Critical Criminology

3 credit hours

Prerequisites: Completion of the courses in Criminology core and permission of the instructor.

Critical criminology challenges the dominant paradigms of crime-control, adopting instead a social justice approach to crime. Students will explore central themes of critical criminology including power; the social construction of crime; governance and regulation; the politicization of crime control; and, the significance of gender, race and class.

4419: Violence and Multiple Murder

3 credit hours

Prerequisites: CRIM 2303 Introduction to Criminology

Students explore the causes of violence while examining the history and present day phenomenon of the multiple murderer (mass/spree killer and serial killer). Students investigate why the U.S.A. produces more of these acts of violence than any other country in the world.

4420 Genocide [SOCI 4420]

3 credit hours

Prerequisite: SOCI/CRIM 3010, SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

Genocide as a sociological and criminological phenomenon prevalent through history is examined. Different types of

genocide are identified, as well as the many challenges in responding to it.

4421 War as Crime [SOCI 4421]

3 credit hours

Prerequisite: CRIM/SOCI 3010, SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

The 20th century has seen two world wars and numerous other conflicts. The so-called 'Cold War' turned hot in many parts of the developing world and cost the lives of tens of millions and maimed countless others. With the new millennium, novel forms of warfare and military technologies have been introduced which again largely victimize the societies of the 'Global South'. Students will analyze the criminal dimensions and true costs of military conflict.

4501 Advanced Theory [SOCI 4501]

3 credit hours

Prerequisite: enrolment in honours program.

Presentation of various topics of interest to advanced criminology and sociology students. Attention is given to the critical theoretical accomplishments of various writers, including feminist scholars. From time to time, depending on student interest and faculty availability, this course will consider particular theorists and such matters as constructing social theories, traditions of theoretical writing, and new directions and problems in the field.

4502 Advanced Research Methods [SOCI 4502]

3 credit hours

Prerequisite: enrolment in honours program.

This course will examine a wide range of quantitative and qualitative research methods and techniques used in criminological research. This course will emphasize the strengths and weaknesses, selection and application of various methodological techniques in conducting criminological research. These will include the application of statistical, experimental, and quasi-experimental techniques as well as the use of field research, interview techniques, historical and documentary analysis.

4512 Issues in Juvenile Justice [SOCI 4512]

3 credit hours

Prerequisites: CRIM/SOCI 3010, SOCI/CRIM 3100, SOCI/CRIM 3102, and either SOCI 3012 or CRIM 3011, and CRIM/SOCI 3512

This course explores contemporary issues associated with the concept, philosophy and practice of juvenile justice. Students will examine children and youth as theoretical constructs in the context of the discourse surrounding children's rights and governance of the young. The course aims to develop students' critical understanding of the politics and philosophy of youth justice in postmodern society.

4515 Drugs and Power in Latin America [SOCI 4515]

3 credit hours

Prerequisite: CRIM/SOCI 3010, SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

Students in this course will become familiar with the complexity of Latin American Organized Crime. We will examine the historical and cultural dimensions of the drug trade, the evolution and role of specific criminal groups, as well as the drug war in the Americas.

4600 Honours Thesis Research Preparation [SOCI 4600]

3 credit hours

Prerequisite: enrolment in honours program.

This course is restricted to students who have been accepted into the honours program. Its purpose is to aid students in the preparation of their honours thesis through workshops related to proposals, research and writing.

4601 Honours Thesis Writing [SOCI 4601]

3 credit hours

Prerequisite: Completion of SOCI/CRIM 4600.

Students will work closely with their supervisor to complete their thesis. To obtain an honours degree in sociology and criminology, the student must earn a grade of B+ (3.30) in CRIM 4601

4610 Practicum in Community Development [SOCI 4610]

3 credit hours

Prerequisite: SOCI/CRIM 3610 Practicum in Social Development

Students will tutor youth from a socially disadvantaged neighborhood and research and prepare a development plan for that community. A theoretical framework and training for this field work is provided by in-class and online lectures and readings.

4620 Immigration Law and Policy Practicum [SOCI 4620]

3 credit hours

Prerequisites: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011 OR 75 credit hours.

This is a service-learning (practicum) course on immigration law and policy, combining learning in a classroom setting with student service in a community-based organization dealing with immigrants and refugees. Analytical work takes place through class discussions, research and reflection on the service experience. Students are provided with a basic understanding of legal texts and a critical sociological perspective in their interpretation and application through the experiences of selected ethnic groups, new immigrants and refugee claimants. The historical evolution of policies and policy discourses is also addressed. Special attention is paid to immigration and refugee issues in Atlantic Canada.

4800 – 4825 Special Topics in Criminology

6 credit hours

Prerequisite: CRIM/SOCI 3010, SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

These seminar courses are designed to provide seminars pertaining to particular interests of faculty and students in Criminology.

4826 – 4849 Special Topics in Criminology

3 credit hours

Prerequisite: CRIM/SOCI 3010, SOCI/CRIM 3100,
SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

These seminar courses are designed to provide seminars pertaining to particular interests of faculty and students in Criminology.

Economics (ECON)

Chairperson	M. Raymond
Professors	A. Akbari, S. AmirKhalkhali, P. Arya, A. Dar, M. MacDonald, S. Novkovic
Associate Professors	Y. Aydede, M. Dilmaghani, B. Talukdar
Assistant Professors	J. Milla, M. Raymond,
Adjunct Professors	W. Rankaduwa, K. Xu
Professor Emeritus	A. Harvey

Department Statement

“Economics is the study of how individuals, firms, government and other organizations within our society make *choices*, and how these choices determine society’s use of its resources.” (Joe Stiglitz).

Economics borders on other academic disciplines, such as political science, sociology, psychology, anthropology and business administration. It also draws heavily on the study of history, statistics and mathematics. Economists are central players in setting government policy, from social programs to economic development. In the private sector, they contribute to market research for new products, evaluate the impact of mergers, and assess tax policy.

Students who desire some minimum understanding of economics are encouraged to consider taking one or two courses at the 1200 level. Entrance into higher level courses ordinarily requires a full-year of principles of economics, but this may be waived with the approval of the Department.

The Economics Department is able to offer students with a special interest in economics the opportunity to undertake some concentration beyond the core of required courses in the following areas and associated courses.

Money and Banking: ECON 3307, 4407
 Public Finance: ECON 3319
 International: ECON 3327, 3365, 4413, 4414
 Quantitative: ECON 3302, 3303, 4403
 Regional: ECON 3324, 3325
 Natural Resources and Environment: ECON 3362, 3363
 Comparative Systems: ECON 3315
 Cost-Benefit Analysis and Health: ECON 3364, 3366
 Development: ECON 3310, 4410
 Labour: ECON 3340, 3341, 3349
 Industrial Organization: ECON 3316
 Other theory courses: ECON 4400, 4401, 4404, 4405.

Students who desire a major in economics are encouraged to enrol in an appropriate program under the guidance of a faculty advisor. There are two general programs: (1) Bachelor of Arts with a major in economics, and (2) Bachelor of Commerce with a major in economics.

See Faculty of Arts and Faculty of Commerce, Section 3 of this *Calendar*, for the basic requirements for these degrees.

In addition to the programs cited above, information on graduate courses, may be found in *the Graduate Academic Calendar*.

Note: Students are advised that possession of the minimum qualifications does not guarantee admission to a particular academic program. Limits to the number of students who can be in a particular program at any one time exist and depend very much on the number of faculty members available in a particular academic unit.

Major in Economics

Regardless of the degree sought, the Department of Economics requires that the program of study leading to a major in economics include the following:

- a. The following economics courses:
- ECON 1201 Principles of Economics: Micro
 - ECON 1202 Principles of Economics: Macro
 - MGSC 1206 Introduction to Quantitative Methods II
 - MGSC 2207 Introductory Statistics
 - ECON 3300 Intermediate Microeconomic Theory
 - ECON 3301 Intermediate Macroeconomic Theory
 - ECON 4400 Advanced Microeconomic Theory or
 - ECON 4401 Advanced Macroeconomic Theory.
 - One additional course (three (3) credit hours) in ECON at the 4000-level (excluding ECON 4475).
 - Six (6) additional credit hours in ECON

Majors are strongly encouraged to include ECON 3302 and/or 3303 among their Economics electives.

b. Six (6) credit hours in the humanities: Classics, English other than ENGL 1205, History, Philosophy other than PHIL 1200, Religious Studies, and Modern Languages courses on literature and/or culture. In special circumstances, with the permission of the Chairperson, part of this requirement may be fulfilled by: ECON 3315.

c. Six (6) credit hours from the social sciences other than economics.

Bachelor of Arts – Major in Economics

Arts students are encouraged to take MGSC 1205 and/or CISY 1225 in fulfilment of Arts requirement 3b. The above requirements for the major will satisfy Arts regulation 3d and six (6) of the nine (9) credit hours in Arts regulation 3c.

Students must achieve a minimum grade point average of 2.0 in the courses listed in a. above.

Suggested course sequencing for the program is as follows:

Year 1

ENGL 1205 Introduction to Literature
 ECON 1201 Principles of Economics: Micro
 ECON 1202 Principles of Economics: Macro
 MGSC 1206 Introduction to Quantitative Methods II
 Six (6) hours in two Humanities
 Six (6) hours in Social Science but not ECON
 Six (6) hours in MATH, Science or modern language
 (MGSC 1205 and CISY 1225 recommended)

Year 2

MGSC 2207 Introductory Statistics
 ECON 3300 Intermediate Microeconomic Theory
 ECON 3301 Intermediate Macroeconomic Theory
 Twelve (12) hours Arts electives at 2000 level or above
 Three (3) hours in Humanities
 Six (6) hours electives

Year 3

Six (6) hours in ECON at the 3000 level or above
 Fifteen (15) hours Arts electives at 2000 level or above
 Nine (9) hours electives

Year 4

One of

- ECON 4400 Advanced Microeconomic Theory or
- ECON 4401 Advanced Macroeconomic Theory

Three (3) hours in ECON at the 4000 level (excluding 4475)
 Twelve (12) hours Arts electives at 2000 level or above
 Twelve (12) hours electives

Bachelor of Commerce - Major in Economics

Upon completion of forty-five (45) credit hours, Commerce students with a cumulative grade point average of 2.0 may elect to declare a major in Economics. (In exceptional circumstances, students can also be admitted to the major by permission of the Chairperson.)

To complete a major in Economics, students must attain a minimum grade point average of 2.2 in ECON courses below as indicated by *.

Suggested course sequencing for the program is as follows:

Year 1

CISY 1225 Introduction to Computer Applications
 *ECON 1201 Principles of Economics: Micro
 *ECON 1202 Principles of Economics: Macro
 ENGL 1205 Introduction to Literature
 MGMT 1281 Introduction to Business Management
 MGSC 1205 Quantitative Methods I
 MGSC 1206 Quantitative Methods II
 Nine (9) non-Commerce elective credit hours

Year 2

ACCT 2241 Introductory Financial Accounting
 ACCT 2242 Introductory Managerial Accounting
 CMLW 2201 Legal Aspects of Business - Part I
 COMM 2293 Communications
 MGSC 2207 Introductory Statistics
 MGMT 2383 Micro Organizational Behaviour
 MGMT 2384 Macro Organizational Behaviour
 MKTG 2270 Introduction to Marketing

*ECON 3300 Intermediate Microeconomic Theory
 *ECON 3301 Intermediate Macroeconomic Theory

Year 3

*ECON 4400 Advanced Microeconomic Theory
 or
 *ECON 4401 Advanced Macroeconomic Theory
 FINA 2360 Business Finance I
 FINA 3361 Business Finance II
 *Three (3) credit hours in Economics electives at the 3000 level or above
 Six (6) credit hours in humanities or language electives [Classics, History, Philosophy (except PHIL 1200.0), Religious Studies, English, or Modern Languages]
 MGMT 3480 Ethical Responsibilities of Organizations
 Three (3) credit hours in non-Commerce electives
 Six (6) credit hours in free electives

Year 4

MGMT 4489 Strategic Management
 *Three (3) credit hours ECON electives at 3000 level or above
 *Three (3) credit hours in ECON electives at 4000 level (excluding ECON 4475)
 Six (6) credit hours in social sciences (excluding Economics) elective [Anthropology, Geography, Political Science, Sociology, or Psychology]
 Three (3) credit hours in non-Commerce electives
 Twelve (12) credit hours in free electives

Students are encouraged to take ECON 3300 or 3301 in year 2 and defer 3 credit hours in ECON electives to year 3.

Honours in Economics

The Department of Economics offers honours programs to students enrolled in either the Bachelor of Arts or the Bachelor of Commerce. Descriptions of the general requirements for the degrees of Bachelor of Arts (Honours) and of Bachelor of Commerce (Honours) are contained in Section 3. In addition to these general requirements, for graduation with honours in economics, all students must comply with the following:

a. Students must satisfy the applicable requirements for a major in economics as outlined above.

b. The fifty-four (54) credit hours in economics presented for honours must include:

- ECON 1201
- ECON 1202
- MGSC 1206*
- MGSC 2207*
- ECON 3300*
- ECON 3301
- ECON 3302*
- ECON 3303*
- ECON 4400;
- ECON 4401;
- ECON 4403*
- ECON 4404 or 4405
- ECON 4498
- ECON 4499*

* Equivalent courses may be taken, subject to approval of the Chair.

- c.** With the approval of the Chairperson of the Economics Department, a student may be permitted to substitute up to twelve (12) credit hours from a related subject area as part of the fifty-four (54) credit hours in economics presented for honours.
- d.** Commerce students doing honours in economics are permitted to count three (3) economics credit hours at the 3000-level or above as a non-commerce elective.
- e.** The recommended course selection and sequence for the degree of Bachelor of Commerce (Honours: Economics) can be found in the Bachelor of Commerce section of this *Calendar*.
- f.** Students contemplating pursuing graduate studies in Economics are encouraged to enrol in Mathematics courses beyond those required for Honours. Courses in Calculus and Linear Algebra are recommended. Students should consult with the chairperson for advice.

Concentration in Economics (Bachelor of Arts only)

To obtain a concentration in Economics in partial fulfillment of the B.A. General degree (i.e., one with Double Arts Concentrations and a minimum of ninety (90) credit hours), a minimum of twenty-four (24) credit hours in Economics with a minimum grade point average of 2.00 is required. Further details are available from the chairperson.

Minor in Economics

Students in the Bachelor of Arts and the Bachelor of Science have the option of declaring a minor in Economics. To satisfy the requirements for this minor students must complete twenty-four (24) credit hours in Economics, with at least twelve (12) credit hours at the 3000-level or above.

Post-Baccalaureate Certificate in Applied Economics (PBCAE)

(Subject to the approval of Maritime Provinces Higher Education Commission)

Program Description

This 8-month program provides students the tools of economic analysis beyond the introductory level. By learning these tools, graduates will gain some basic understanding of economic principles involved in public policy and business decisions. This training will also enable students to pursue a master's degree in applied economics if they so desire.

Admission Requirements

The Post-Baccalaureate Certificate in Applied Economics follows the general admission requirements and procedures as outlined in Section 2 of the Undergraduate Academic Calendar. In addition, all applicants must possess at least a four-year Bachelor of Arts, Bachelor of Science, or a Bachelor of Commerce degree (or equivalent) with a cumulative GPA (3.00) equivalent to a grade of "B".

Applications to the Post-Baccalaureate Certificate in Applied Economics (PBCAE) program should be made as early as possible. Additional program information may be obtained by contacting:

The Program Director, PBCAE Program
Saint Mary's University, Department of Economics
Halifax, NS B3H 3C3

Tel (902) 420-5621
Fax (902) 420-5129
mae@smu.ca
www.smu.ca/academic/sobey/mae/welcome.html

An online application form is available at
<http://www.smu.ca/future-students/cs-apply-online.html>

All applicants to the Master of Applied Economics (MAE) program are automatically considered for admission in PBCAE if it is determined that they do not fully meet the admission requirements of MAE program. Students who are interested in pursuing MAE degree, but are not sure for which program they are best qualified, are advised to [apply for the master's program](#).

Program Requirements

Students admitted to the program must successfully complete eighteen (18) credit hours. This involves successfully completing the following course requirements:

- Nine (9) credit hours must include the following core courses:
 - ECON 5500 Intermediate Microeconomic Theory (3 credit hours)
 - ECON 5501 Intermediate Macroeconomic Theory (3 credit hours)
 - ECON 5506 Intermediate Economic Statistics (3 credit hours)
- nine (9) credit hours of electives with at least six credits taken in Economics at 4000 level or above. Students may be able to take one elective (3 credit hours) from outside of Economics.
- Three (3) credits at 4000 level or above in any discipline

Course Descriptions

1201 Principles of Economics: Micro

3 credit hours

The objective of this course is to introduce students to the basic principles of microeconomics. In particular, the course focuses on the study of the economic behaviour of individual households and firms. It also focuses on the determination of the market prices of individual goods and services under different market structures.

1202 Principles of Economics: Macro

3 credit hours

The objective of this course is to introduce students to the basic principles of macroeconomics, i.e., the study of the economy as a whole and to show the relevance of these principles for an understanding of current macroeconomic issues. Topics include: measuring macroeconomic indicators (GDP, unemployment rate, price level), determinants of aggregate economic activity, money and banking, causes of economic fluctuations, stabilization policies (fiscal and monetary), international transactions and growth.

3300 Intermediate Microeconomic Theory

3 credit hours

Prerequisite: ECON 1201 and MGSC 1206.

Theory of consumer behaviour and demand, theory of production and cost, behaviour of the firm, theory of price and output under different market structures, and the theory of factor markets.

3301 Intermediate Macroeconomic Theory

3 credit hours

Prerequisite: ECON 1202 and MGSC 1206.

Measurement of macroeconomic variables; models of aggregate income and price determination; unemployment and inflation; macroeconomic policy debates.

3302 Mathematical Economics

3 credit hours

Prerequisite: ECON 1201 and 1202; and MGSC 1206 or equivalent.

An introduction of the role of mathematics in economic analysis. Mathematical topics include linear algebra, partial differentiation, implicit function theorems and comparative statics analysis, unconstrained and constrained optimization theory.

3303 Intermediate Economic Statistics

3 credit hours

Prerequisite: MGSC 2207 or equivalent.

A further study of the basic concepts of statistics and its application to the solution of business and economic problems: review of probability, random variables and their distribution, sampling and sampling distributions, normal and associated distribution, statistical inference, simple and multiple regression and related topics.

3307 Money and Banking

3 credit hours

Prerequisite: ECON 1201 and 1202.

Money and the payments system, development of banking in Canada, financial instruments, theory of banks' intermediation, chartered banks structure, operation and competition, governments and Canadian financial markets.

3310 Development Economics

3 credit hours

Prerequisite: ECON 1201 and 1202.

Alternative theories of growth and development, including economic and non-economic determinants of growth in developing countries, the role of government in development policies and lessons from experience in growth and change.

3315 Comparative Economic Systems

3 credit hours

Prerequisite: ECON 1201 and 1202.

An examination of how different economic systems choose to solve the basic economic problems of resource allocation and distribution of income and wealth. Theoretical models of (idealized) economic systems as developed by the Classical economists (e.g., Smith, Ricardo, Mill), Marx, Schumpeter, Lange, Keynes, etc., will be studied. The structure and

performance of past and existing systems will be analyzed, with emphasis on diverse institutional arrangements.

3316 Industrial Organization

3 credit hours

Prerequisite: ECON 1201 and 1202.

The course begins by laying out the arguments for competitive market processes and then proceeds to investigate the determinants of real-world industrial market structures, the behaviour of firms, and efficiency in resource allocation.

3319 Public Finance

3 credit hours

Prerequisite: ECON 1201 and 1202.

Students will be exposed to the economics of government budgets from both a theoretical and applied viewpoint, with special emphasis on taxation. Topics could include: government expenditures, public goods, fiscal federalism, tax incidence theory, income taxation, sales and excise taxes, property taxes, public debt, and fiscal tools for stabilization policy.

3322 Canadian Economic Issues

3 credit hours

Prerequisite: ECON 1201 and 1202.

This course deals with economic issues relevant to business and public policy. Topics may include regulation of industry and competition policy, the labour market and collective bargaining, environmental policy, public debt, fiscal federalism, stabilization policy, economic growth, and other issues of current interest.

3324 The Atlantic Canadian Economy

3 credit hours

Prerequisite: ECON 1201 and 1202.

Analysis of the structure, development and performance of the economy of the Atlantic Canadian region. Topics covered include: economic history of the region, current structure of the regional economy and state of economic development, sub-regional differences in economic structure and performance, external trade linkages, demographic and labour market characteristics, the role of government in the development process.

3325 Atlantic Canadian Economy Seminar

3 credit hours

Prerequisite: ECON 1201 and 1202.

This course will examine in detail a small number of current economic issues in the Atlantic Canadian region. General topic areas, from which specific issues may be chosen, include: the impact on the region of policies and programs of the federal government including monetary, fiscal, manpower, and development policies; the role of provincial and municipal planning and development agencies; the role of key sectors of the economy in future development, including energy, natural resources, steel, and transportation.

3327 Asia Pacific Economies

3 credit hours

Prerequisite: ECON 1201 and 1202.

The goal of the course is to create and enhance a capacity for understanding contemporary economic development in Asia Pacific. The course examines economic, historical, and institutional conditions and factors that influence economic growth in selected countries in this region. Policy lessons related to exchange rates, trade, and development will be drawn. The course will also look at some recent developments and address current debates on growth, distribution, environment, and globalization.

3340 Human Resource Economics

3 credit hours

Prerequisite: ECON 1201 and 1202.

This course examines a variety of topics in the study of labour markets and human resource use. Topics in any year may include: the changing composition of the labour force and structure of employment; unemployment and manpower policy; history, structure and impact of the labour movement; inequalities in the labour market; income distribution and problems of poverty; technological change; macro-economic policy and the labour market.

3341 Labour Economics

3 credit hours

Prerequisite: ECON 1201 and 1202.

This course focuses on the framework for analyzing labour market issues. Employment and wage determination under different labour market structures are analyzed. Emphasis is on the economics analysis of work incentives, wage differentials including the importance of human capital, unionization, internal labour markets, discrimination and segmented labour markets.

3349 Women and the Economy [WMST 3349]

3 credit hours

Prerequisite: ECON 1201 and 1202.

This course will examine various aspects of women's participation in the economies of developed countries (primarily Canada) as well as developing countries. Topics in any year may include analysis of the relationship between the paid and unpaid work of women, changes in labour force participation, trends and determinants of the male/female wage gap, models of household economic decision-making, the impact of technological change, and the international gender division of labour. Particular attention will be paid to policy issues relevant to the economic status of women. The course will also examine gender bias in the theory, methodology and practice of economics and will evaluate various theoretical approaches to the study of women.

3362 Natural Resource Economics

3 credit hours

Prerequisite: ECON 1201 and 1202.

This course examines the principles governing the use of natural resources, and analyzes the economics of natural resource industries such as fisheries, forestry and mining.

Emphasis is placed on the economic importance of time, since resource conservation requires a balance between current and future use. Methods to achieve optimal social benefits through the economic regulation of resource exploitation will be addressed.

3363 Environmental Economics

3 credit hours

Prerequisite: ECON 1201.

This course focuses on the application of economic principles to such environmental issues as air and water pollution, preservation of wildlife and wilderness areas, and the balance between economic activity and environmental health. The environmental impacts of fisheries, forestry, and mining are also discussed. Methods for environmental management are considered, particularly addressing the potential role of economic institutions and economic instruments. Some discussion of current Canadian policy issues is also undertaken.

3364 Cost-Benefit Analysis

3 credit hours

Prerequisite: ECON 1201 and 1202.

This course deals with the methodology and problems underlying the evaluation of projects from the social welfare perspective. Topics will include various elements relevant to the measurement of social benefits and opportunity costs: market distortions, the role of time, distributional issues, uncertainty and risk. Applications discussed will be drawn from a number of areas, such as urban economics, health economics, the environment, forestry and fisheries.

3365 International Economic Issues

Prerequisite: ECON 1201 and 1202.

An examination of current issues and trends in international economics, covering international trade and international macroeconomics and finance subject areas. Different interpretations of recent events will be presented and critically appraised. Students will be expected to locate and analyze economic, financial and trade data.

3366 Health Economics

3 credit hours

Prerequisite: ECON 1201 and 1202.

This course aims at developing an understanding of the economic issues underlying the provision of health care. Students will learn how to apply the tools of economic analysis to a study of the roles of, and interactions between, health-care providers, insurers (private and public), and health care demanders, as well as questions relating to alternative modes of health care financing, with emphasis on Canadian issues.

3826 – 3849 Special Topics in Economics

3 credit hours

Prerequisite: Permission of instructor

3876 – 3899 Directed Study in Economics

3 credit hours

Prerequisite: Permission of instructor

4400 Advanced Microeconomic Theory

3 credit hours

Prerequisite: MGSC 1206 or equivalent, and ECON 3300.

Advanced treatment of the theories of consumer behaviour and the firm with special emphasis on duality theory; general equilibrium theory; welfare economics. Other topics may include choice under uncertainty and game theory.

4401 Advanced Macroeconomic Theory

3 credit hours

Prerequisite: MGSC 1206 or equivalent, and ECON 3301.

Microeconomic foundations of macroeconomics; inflation; interest rates; exchange rates; labour markets and unemployment; investment and real business cycles; economic growth.

4403 Econometrics

3 credit hours

Prerequisite: ECON 3303.

Theory and applications of econometric models and their estimation. Topics will include generalized least squares, dynamic econometric models, the analysis of time series models, and models with qualitative variables.

4404 Special Topics in Microeconomics

3 credit hours

Prerequisite: ECON 4400.

Selected topics in microeconomics chosen for rigorous, in-depth study from the following areas: input markets; general equilibrium; welfare economics; inter-temporal choice; information theory. Topics may vary depending on the interests of the students and the instructor.

4405 Special Topics in Macroeconomics

3 credit hours

Prerequisite: ECON 4401.

Selected topics in macroeconomics chosen for rigorous, in-depth study from the following areas: consumption and investment; basic infinite horizon models; the overlapping generations model; business cycle theories; nominal rigidities and economic fluctuations. Topics may vary depending on the interests of the students and the instructor.

4407 Monetary Economics

3 credit hours

Prerequisite: ECON 3300 and 3301.

The first part of the course consists of an introduction to microeconomic monetary theory including models of money demand, models of asset demand, portfolio allocation and the firm's financial problem. The second part of the course deals with macroeconomic monetary problems such as inflation, dynamic inconsistency, monetary policy objectives and conduct of monetary policy.

4410 Issues in Economic Development

3 credit hours

Prerequisite: ECON 3300 and 3310.

Specific problems in economic development; emphasis on government policies, foreign aid, foreign trade and their impact on underdeveloped countries.

4413 International Macroeconomics and Finance

3 credit hours

Prerequisite: ECON 1201 and 3301.

An introduction to the past and current issues and debates in theoretical and empirical international macroeconomics, with coverage of the foreign exchange market and associated derivative markets. Topics include the balance of payments, exchange rate determination and exchange rate and stabilization policy.

4414 International Trade

3 credit hours

Prerequisite: ECON 3300.

An introduction to the theory of international trade: comparative advantage, modern refinements, gains from trade, empirical relevance of trade models, tariffs and protection, economic integration, trade and growth.

4475 Business Consultancy

3 credit hours

Prerequisite: ECON 3300 and permission of Chairperson.

This course allows students to gain business experience by working for clients of the Saint Mary's University Business Development Centre. Student groups receive a project proposal outlining the requirements, information needs and services they will provide the client during the semester. Projects generally take the form of a business plan, market study, or other business-related function and often involve financial projections. Each project provides students an opportunity to use skills learned in business courses and to understand the interrelationship between marketing, accounting, finance, and management in a practical business setting. Under supervision, students prepare a professional report and the final presentation that communicate the project's results for the client.

Work groups often include students from different business disciplines and are assigned based upon the needs of the project. Groups schedule their preferred meeting times but are required to meet a minimum of three hours each week. For more information see <http://www.smu.ca/smubdc>.

4490 Seminar in Economics

3 credit hours

Prerequisite: ECON 3300 and 3301.

This course deals with selected topics in economics. It is offered when in sufficient demand, and specific topics covered may vary depending on the interests of students and instructors.

Classes and independent study. 1 semester.

4498 Research Seminar in Economics

3 credit hours

Prerequisite: ECON 3300 and ECON 3301.

The study of the nature of methodology of research from the standpoint of economics. This course is designed to assist students in developing skills necessary to design, conduct, report and evaluate economic research projects. Students will develop a research project and produce a research report.

Seminar 2 hrs. a week.

4499 Honours Project in Economics

3 credit hours

Prerequisite/co-requisite: Admission to the honours program (thesis option) and completion of ECON 4498, or permission of the Chairperson.

This course requires the completion of a major economic research project or thesis under the direction of one or more faculty members.

4826 – 4849 Special Topics in Economics

3 credit hours

Prerequisite: Permission of instructor

4876 – 4899 Directed Study in Economics

3 credit hours

Prerequisite: ECON 1201, 1202, and permission of instructor.

Intended to supplement or provide an alternative to the regular economics courses in order to meet the special needs and interests of students, the course provides an opportunity to study a particular subject in detail and requires from the student some measure of independence and initiative.

Education (EDUC)

Professors	S. Crooks, E. Enns
Associate Professor	A. O'Malley
Adjunct Professors	U. Druwe, A. Fu, M. Grau, J. L'Enfant, M Legutke, Z. McLaren, S. Theunissen, H. Van Gurp
Professor Emeritus	J. Haysom

General Information

The Faculty of Education at Saint Mary's University is dedicated to the interdisciplinary study of education through an exploration and evaluation of education policy and practice, education alternatives and reforms, and perspectives and philosophies that underlie both policy and progress in education. The Faculty of Education offers courses which explore these themes at the local, regional, national and international levels.

Students enrolled in the Faculty of Arts, the Faculty of Science, and the Sobey School of Business can select Education courses as an elective in their degree programs, giving students an opportunity to understand both their own educational experiences and to examine education critically as a major cultural institution throughout the world.

The Faculty of Education offers students who are new to university, or who are new to the Canadian university experience, a selection of unique 1000-level courses that provide an introduction to the nature, scope, and meaning of university education in a Canadian setting. These courses can be taken as electives, and will support students in their transition to their university studies.

The Faculty's courses and research focus on five strategic areas:

1. The Liberal Study of Education

Education is a central social institution—many would say the most important social institution—and the Faculty offers courses, carries out research, and creates initiatives in the history, philosophy and contemporary institutional nature of education from a comparative perspective. The liberal study of education integrates the perspectives and methods from of many disciplines--anthropology, history, philosophy, interdisciplinary studies, linguistics, literature, political science, psychology, religious studies and sociology, among others—to gain a better understanding of education and how both informal and formal education can contribute to progressive policy and practice. This interdisciplinary perspective enables students to explore how education operates in, influences and is influenced by people and cultures both at home and around the world. All the Education courses offered in this strategic area can be taken as electives for degrees offered in the Faculty of Arts, the Faculty of Science and the Sobey School of Business.

2. University Transition

The Faculty of Education offers a series of innovative courses that support students in their integration into the intellectual culture and values of the university with an

emphasis on the development of critical reflection. A number of these courses are geared toward international students whose first language is not English. However, the courses are beneficial for all students seeking a broad, but comprehensive look at the university academic experience. All the Education courses offered in this strategic area can be taken as electives for degrees offered in the Faculty of Arts, the Faculty of Science and the Sobey School of Business.

3. Education and International Development

Educational systems are a critical component of the social, political and economic structures of all societies around the world. Through a comparative and critical examination of national education policies, especially those in the developing world, students will achieve an understanding of the advantages and disadvantages of competing types of formal and informal education systems. A comparative analysis of education policy and practice supporting economic advancement, social justice, the development of national citizenship, social integration, or remedying social exclusion are among the themes of these courses. These studies reflect the importance of the university's role in Education and International Development by providing students with a foundation in international comparative education, education and development, comparative educational reforms and comparative innovations in education.

All the Education courses offered in this strategic area can be taken as electives for degrees offered in the Faculty of Arts, the Faculty of Science and the Sobey School of Business.

4. Peace Education

The goal of peace education is to transform cultures of violence in society to cultures of peace. It promotes the development of values such as cultural understanding, active citizenship, and non-violence. Courses in peace education give students the opportunity to experience and critically examine educational approaches such as global education, intercultural education, or sustainable development education, that teachers can use for awakening learners to strategies for developing humanity and world community. The Faculty of Education offers field schools incorporating academic credit which provide experiential learning for a greater understanding of the real world challenges of peace education.

All the Education courses offered in this strategic area can be taken as electives for degrees offered in the Faculty of Arts, the Faculty of Science and the Sobey School of Business.

5. Professional Development for Teachers

Mindful of its history in teacher education, Saint Mary's University currently offers two Continuing Service Education certificates for teachers:

- Certificate in Linguistics
- Certificate in the Mathematical Sciences for Education

For more detailed information on each of these certificates, prospective students should visit Section 4 of this calendar for the information under Linguistics and Mathematics. Teachers should note that while these programs have been generally approved for teacher certification upgrading purposes by the Minister of Education and Early Childhood Development, they must seek approval of these programs from the Registrar of Teacher Certification at the Nova Scotia Department of Education and Early Childhood Development for specific teacher certification upgrades. Students interested in pursuing a career in teaching in the public schools should visit the teacher certification website at the Nova Scotia Department of Education and Early Childhood Development for information on current academic content requirements. Undergraduate professional teacher education programs leading to teacher certification are offered at the following Nova Scotia universities – Acadia, Mount Saint Vincent, Cape Breton, St. Francis Xavier and Université Sainte Anne. Students also have the opportunity of studying at the University of Maine at Presque Isle under the terms of an agreement between the universities that has been in place for almost two decades. Further information is available from the Education Advisor at Saint Mary's or by contacting the Admissions Office at the University of Maine at Presque Isle.

Graduate Studies

The Faculty of Education offers a graduate program in the teaching of English as a second/additional language: the International Master of Teaching English (IMTE). Details on graduate courses can be found in the *Graduate Academic Calendar*.

Course Descriptions

1000 Introduction to University Education

3 credit hours

Prerequisite: This course is open to students who are in their first year of university study and have completed no more than 15 (fifteen) credit hours.

The main objective of this course is to provide students with an academic roadmap for university. Through self-evaluation, discussions, field experiences, and traditional classroom exercises, students will develop an understanding of the culture of the university, so that they will be in a position to participate productively and effectively in their chosen field of study.

Note: Permission to register or remain in the course may be granted by the instructor in the case of international and/or transfer students based on an assessment of prior academic experience.

1101 Learning English as an International Language I

3 credit hours

Prerequisite: Permission of the instructor

The course is an introduction to the historical, social and cultural contexts leading to the emergence of International (or Global) English, including a study of the effects it has had on global, national and regional identities and cultures, and the learning of English. The academic study of

International English is integrated with development of English language proficiency for non-native speakers. The course is intended for speakers of English as a second or foreign language.

NOTE: Permission to register or remain in the course can be refused if the instructor judges that the student's knowledge exceeds the level for the course.

1102 Learning English as an International Language II

3 credit hours

Prerequisite: EDUC 1101, or permission of the instructor

The course is a continuation of EDUC 1101. The academic study of International English is integrated with development of English language proficiency for non-native speakers. It is not offered to students with advanced levels of competency in English.

1360 Autonomy and Education [PHIL 1360]

3 credit hours

Students will examine autonomy as a concept, and evaluate its appropriateness as an educational goal. Students will be challenged to consider the role of education in their personal growth and development, as well as possibilities for their own agency in this development.

2201 Second Language Learning and Acquisition

Prerequisites: EDUC 1102, or permission of instructor

Students examine educational, social and cognitive dimensions of second language learning and acquisition or multilingualism, with a particular emphasis on adult learners. Foundational principles as they apply to international student experience are included. The study of language learning processes is integrated with development of English language proficiency for non-native speakers, and is intended for those learning the English as an additional language.

2365 Philosophy of Education: Classic Texts [PHIL 2365]

3 credit hours

Prerequisite: at least thirty (30) credit hours

A critical examination of influential works in the history of educational thought.

3301 Critical Perspectives on Standard English

Prerequisites: EDUC 2201, or permission of instructor

This course is an introduction to issues arising from the educational practice of assessing non-native speakers' communication in English against norms of Standard English. The focus is a critical examination of the global trend in language education toward English as a lingua franca (ELF). The study of language learning processes is integrated with the development of English language proficiency for non-native speakers, and is intended for those learning English as an additional language.

3307 Sociology of Education [SOC 3307]

3 credit hours

Prerequisite: at least thirty (30) credit hours

A study of major sociological approaches (both conceptual and methodological) to education in different societies, with special emphasis on Canadian society. The course will focus on topics such as relationship between family, education and society; education and inequality; the social organization of knowledge; education and social change; the politics of education.

3308 Origins of Modern Schooling

3 credit hours

Prerequisite: at least thirty (30) credit hours

The course is an introduction to changing perspectives on the nature and purposes of schooling from Plato's Academy to the 21st century world. Students engage in considering and discussing important contemporary questions, policies, and practices in education.

3309 Innovations in North American Education

3 credit hours

Prerequisite: at least thirty (30) credit hours

Students are introduced to trends and issues in modern North American public schooling. They examine the rise of public schooling in Western societies, and the advent of the education state. Topics may include approaches to designing teaching and learning processes, the socialization of children, the impact of globalization and technology, and schooling of the future.

3365 Philosophical Foundations of Education [PHIL 3365]

3 credit hours

Prerequisite: at least thirty (30) credit hours

This course is an enquiry into the nature and aims of education. Topics considered will include analyses of the concept of education, evaluation of contrasting views about what constitutes an ideal education, and implications of various theories of knowledge for methods of teaching and learning. Selections from historical and contemporary thinkers will be studied.

3826 – 3849 Special Topics in Education

3 credit hours

Prerequisite: permission of instructor

3876 – 3899 Directed Study in Education

3 credit hours

Prerequisite: permission of instructor

4456 Curriculum and Instruction in Teaching English as a Second or Foreign Language I

3 credit hours

Prerequisite: at least thirty (30) credit hours

Intended for teachers of English as a second or foreign language (ESL/EFL), this course focuses on the curriculum and methods used in teaching English to non-native speakers both in Canada and abroad. Focus is on analysis and evaluation of selected curricular approaches and pedagogical methods in foreign language teaching.

4457 Curriculum and Instruction in Teaching English as a Second or Foreign Language II

3 credit hours

Prerequisite: EDUC 4456

A continuation of EDUC 4456. Topics may include trends and issues in foreign language education, and critical examination of selected approaches, e.g. teaching for communication, content-based ESL/EFL.

4458 Pedagogical Grammar for ESL Teachers: Theory and Practice

3 credit hours

Prerequisite: LING 1200 or enrolment in graduate program.

This course, intended for teachers of English as a Second or Foreign Language, is designed to provide a review of the syntactic structure of English, as well as ideas for how grammar can be integrated into the communicative language classroom. Topics covered in the course include contrasting types of grammatical analysis; awareness of grammar functions; different approaches to the teaching of grammar; identification, analysis, and remediation of student errors; grammatical difficulties for ESL/EFL learners; selection and evaluation of commercial texts; and preparation of pedagogical materials for students in a variety of contexts and instructional settings.

4459 Seminar and Practicum in Teaching English as a Second/Foreign Language

3 credit hours

Prerequisite: EDUC 4456

This course consists of a series of professional seminars designed to examine issues related to contemporary English as a Second/Foreign Language pedagogy. Topics include, but are not restricted to, needs analysis, lesson planning, classroom management, and classroom interaction. Students will use a variety of methods, techniques, and strategies to promote second language acquisition, while, at the same time, encouraging reflective practice. This course includes a twenty-five hour supervised practicum during the semester.

4461 Language, Culture, and Education

3 credit hours

Prerequisite: at least thirty (30) credit hours

This course focuses on the personal aspects of intercultural communication - what happens when people from different cultures interact face-to-face. Topics include foundational issues of culture and communication including culture shock, adjustment, re-entry shock, verbal and non-verbal communication, gender, race and class, children's ethnic socialization, the status of families as cultural units, and multicultural and anti-racist education. The course emphasizes the development of strategies for successful intercultural education.

4473 Comparative Perspectives on Innovations in Education – Reforms [IDST 4473]

3 credit hours

Prerequisite: at least thirty (30) credit hours

This course will assess, compare and contrast variations and reforms to mainstream educational systems, and will emphasize the conditions out of which such reforms are initiated. Special emphasis will be given to contrasting public systems of education with privatization initiatives, together with public/private partnerships and changes that affect access to education, gender and education, and so on. This course will draw on the considerable body of literature and concrete case studies throughout the world; however, considerable emphasis will be given to examples and case studies from the regions or sub-regions of Asia, Africa, Latin America and the Middle East/North Africa.

4474 Comparative Perspectives on Innovations in Education – Alternatives [IDST 4474]

3 credit hours

Prerequisite: at least thirty (30) credit hours

This course will seek to understand the material and social conditions, practical initiatives, rationale and outcomes of radical alternatives to mainstream education and mainstream educational reforms. Above and beyond in-depth discussions of perspectives on informal and non-formal educational systems, the works of Illich, Freire, and other educational radicals will be discussed, as will the concepts of intercultural bilingual education, social capital education, and other alternative conceptions of education. The course will provide a forum for the discussion and deeper understanding of the relation between the larger social, political and economic structure and the educational goals and objectives of radical education alternatives. Considerable emphasis will be given to examples and case studies from the regions or sub-regions of Asia, Africa, Latin America and the Middle East/North Africa.

4476 Education and Development I: Perspectives [IDST 4476]

3 credit hours

Introduction to concepts and analysis underlying a comparative understanding of selected educational systems around the world. The course will emphasize comparisons between mainstream educational understandings in the developed world, the agenda of international education organizations, international educational funders, and the implementation of educational systems, both public and private. Specific reference will be made to access to education, curriculum and culture, gender and education, and similar issues with an emphasis on examples from the so-called *developing world* in Asia, Africa, Latin America and the Middle East/North Africa.

4477 Education and Development II: Policies and Practices [IDST 4477]

3 credit hours

A continuation of EDUC 4476. Examination and comparison of educational policies in selected countries or

regions of the world with a view to assessing educational outcomes, education processes and the relation between education, the public sector, the private sector and international organizations, and the effect of such policies

worldwide. Emphasis is on Asia, Africa, Latin America and the Middle East/North Africa.

4518 Introduction to International Comparative Education: Perspectives [IDST 4518]

3 credit hours

Prerequisite: at least thirty (30) credit hours

Introduction to concepts and analysis underlying a comparative understanding of selected educational systems around the world. The course will emphasize comparisons between mainstream educational understandings in the developed world, the agenda of international education organizations, international educational funders, and the implementation of educational systems, both public and private. Specific reference will be made to access to education, curriculum and culture, gender and education and similar issues with an emphasis on examples from the so-called developing world in Asia, Africa, Latin America and the Middle East/North Africa..

4528 Introduction to International Comparative Education: Policies [IDST 4528]

3 credit hours

Prerequisite: at least thirty (30) credit hours of University courses and EDUC 4518 or permission of Instructor

This course is a continuation of EDUC 4518. Examination and comparison of educational policies in selected countries or regions of the world with a view to assessing educational outcomes, educational processes and the relation between education, the public sector, the private sector and international organizations, and the effect these policies have had, or are having worldwide, with emphasis on the regions or sub-regions of Asia, Africa, Latin America and the Middle East/North Africa

4826 – 4849 Special Topics in Education

3 credit hours

Prerequisite: permission of instructor

4876 – 4899 Directed Study in Education

3 credit hours

Prerequisite: at least thirty (30) credit hours of University courses.

An independent study organized by a faculty member in consultation with a student. It enables a student to pursue independent research in a specific theme in education. Papers and/or examinations will be required.

Engineering (EGNE)

Director	D. MacNeil
Professor	D. Swingler
Associate Professor	A. Merabet, S. Veres
Assistant Professors	J. Rhineland, J. Veres
Lecturer	L. MacDonald, D. MacNeil
Professor Emeritus	V. Tarnawski

General Information

Saint Mary's University offers the first two years of an Engineering degree program accredited by the Association of Professional Engineers of the Provinces through the Canadian Accreditation Board. These first two years of study constitute the Diploma in Engineering. The admission requirements for the Diploma and details of the Diploma requirements are listed below.

Completion of Degree at Dalhousie University:

Upon completion of the Diploma in Engineering at Saint Mary's, students may choose to apply to Dalhousie University for the completion of their Bachelor of Engineering degree in their chosen discipline program. Required courses for the Diploma, as well as for each of the disciplines are listed below. Admission to the desired discipline program at Dalhousie University is not automatic and may depend on the applicant's academic standing and the number of available seats in the different programs. Students with low academic standings may be offered alternative disciplines. Dalhousie will treat students from the Associated University programs (of which Saint Mary's is a member) in the same manner as students who entered the program as freshmen at Dalhousie University. Academic merit will be the only deciding factor on admission to disciplines.

Completion of Degree at University of Windsor:

With a Saint Mary's University Diploma in Engineering, students may be eligible for admission to the Bachelor of Applied Science (BASc) in Mechanical Engineering and to the Bachelor of Applied Science (BASc) in Civil Engineering programs at the University of Windsor. Students must have successfully completed their Diploma in Engineering and obtained a minimum grade of C- in each of their required courses for the Diploma. Available options within the BASc in Mechanical Engineering include General, Aerospace, Automotive, Materials or Environmental. Interested students should speak to the Engineering Academic Advisor.

Completion of Degree at Saint Mary's University:

Diploma in Engineering students may also choose to continue their studies at Saint Mary's to obtain a Bachelor of Science with Diploma in Engineering. Two options are available: B.Sc. (General) with Diploma in Engineering; and B.Sc. with Major and Diploma in Engineering. Detailed requirements for each of these degrees are listed below.

Diploma in Engineering Requirements:

Year One:

MATH 1210 Introductory Calculus I

MATH 1211	Introductory Calculus II
CHEM 1210	General Chemistry I
CHEM 1213	General Chemistry II for Engineering
PHYS 1210	University Physics I
PHYS 1211	University Physics II
ENGL 1205	Introduction to Literature
EGNE 1203	Engineering Mechanics (Statics)
EGNE 1204	Computer Methods for Engineers
EGNE 1206	Technical Communications
EGNE 1210	Engineering Design Graphics (Design I)
HIST 1301	Intro to the History of Science and Technology

Students must follow the instructions given by the Division to declare their discipline by the end of year one.

Disciplines:

Environmental Engineering
 Chemical Engineering
 Civil Engineering
 Electrical Engineering
 Industrial Engineering
 Mechanical Engineering
 Mineral Resources Engineering

Year Two:

The second year curriculum comprises twenty-seven (27) required credit hours for students in all disciplines; and an additional nine (9) credit hours from discipline-specific courses.

Twenty-seven (27) required credit hours:

MATH 2301	Applied Linear Algebra
MATH 2303	Differential Equations I
MATH 2311	Intermediate Calculus
EGNE 2302	Engineering Economics
EGNE 2303	Thermo-Fluid Engineering I
EGNE 2304	Mechanics of Deformable Bodies
EGNE 2307	Engineering Design II
EGNE 2308	Electric Circuits
EGNE 2309	Probability and Statistics for Engineers

Nine (9) credit hours from discipline-specific courses

Discipline specific course requirements are communicated to student annually by the Division in Winter. Students must meet with the Engineering Advisor or Science Advisor to select their discipline-specific courses from among the list below:

GEOL 1200	Understanding the Earth
EGNE 2301	Dynamics
EGNE 2305	Digital Logic Circuits
EGNE 2306	Thermo-Fluid Engineering II
EGNE 2311	Circuit Analysis II
EGNE 2400	Engineering and Biosphere
EGNE 2401	Fundamentals of Process Engineering.
EGNE 2402	Fundamentals of Environ. Engineering.
	Humanities elective

Notes:

(a) To qualify for the Diploma in Engineering, a student is required to achieve a minimum DGPA of 2.00.

Bachelor of Science (General) with Diploma in Engineering Requirements:

Students must complete the requirements for the Diploma in Engineering plus:

- six (6) credit hours of discipline-specific Other Science courses at 2000 level or above, approved by the Engineering Academic Advisor
- three (3) credit hours of Other Science electives which may be used to satisfy any prerequisite courses for the approved 6 credit hours in Other Science.
- six (6) credit hours in Arts
- three (3) credit hours of elective courses in Science or Arts

Students must meet with the Engineering Academic Advisor to select any Science Electives.

Bachelor of Science with Major and Diploma in Engineering

Students who wish to pursue **this dual credential program should consult with the Science Advising Office** or the Engineering Academic Advisor as early as possible in their studies to chart and approve their courses.

Course Descriptions

1203 Engineering Mechanics (Statics)

3 credit hours

Prerequisite: MATH 1210/1211 (concurrently).

Students will cover the fundamental concepts and principles of mechanics, statics of particles, equivalent force systems, equilibrium of rigid bodies, analysis of structures, friction, distributed forces, centroids, centre of gravity, and moments of inertia.

Classes 3 hrs. and lab 3 hrs. a week.

1204 Computer Methods for Engineers

3 credit hours

Prerequisite: Students must be registered in either the Diploma of Engineering or the B.Sc./Diploma in Engineering program.

This course introduces students to computer tools and techniques for the solution of common engineering problems. Software methods include C language programming, MathCad, spreadsheets, PC operating systems and networks will be studied. Problems involving the solution of simultaneous equations, matrix algebra, numerical integration/ differentiation, and display and analyses of experimental data will be addressed.

Classes 3 hrs. and lab 3 hrs. a week.

1206 Technical Communications

3 credit hours

Prerequisite: Students must be registered in either the Diploma of Engineering or the B.Sc./Diploma in Engineering Program

Students are exposed to the history of engineering and its disciplines, academic regulations, ethics, equity and professional responsibility. Students are provided with the practical communication skills associated with the Engineering profession including: writing fundamentals, technical writing, presentations, public speaking, and communication theory.

Classes 3 hrs. a week and lab 3 hrs. a week.

1210 Engineering Design Graphics (Design I)

3 credit hours

Prerequisite: Students must be registered in either the Diploma of Engineering or the B.Sc./Diploma in Engineering Program.

Students examine graphics as a language of communication. Topics include: 3D visualization; projection theory; orthographic, oblique and isometric sketching; drawing as a means of representing 3D objects on 2D paper; reading of engineering drawings; standards and conventional practices. Students complete a design project which includes elements of conceptual design, team work, project management, computer drafting, reporting and presentations.

Classes 3 hrs. and lab 3 hrs. a week

2301 Dynamics

3 credit hours

Prerequisite: MATH 1211, EGNE 1203, and EGNE 1204.

Topics include rectilinear and curvilinear kinematics using Cartesian, normal-tangential, and polar cylindrical labels: projectile motion with zero and non-zero drag. Topics also include continuous and discrete forms of the second law: work-energy, conservation of energy, impulse-momentum. Students are introduced to the Newtonian analysis of bodies in translation, rotation about a fixed axis, and plane general motion. Planar mechanisms with pin joints, sliding connections, and gears are addressed.

Classes 3 hrs. and lab 3 hrs. a week.

2302 Engineering Economics

3 credit hours

Prerequisite: Students must be registered in either the Diploma of Engineering or the B.Sc./Diploma in Engineering program.

This course deals with the economics of engineering design. Students are introduced to the fundamental concepts and cash flow diagrams; and interest factors are dealt with in some detail. A variety of discounted cash flow techniques are covered including rate of return calculations. Topics also include inflation, tax, replacement and risk.

Classes 3 hrs. a week and labs 1 hr. a week.

2303 Thermo-Fluid Engineering I

3 credit hours

Prerequisite: MATH 1211 and PHYS 1211.

Students are introduced to the fields of Thermodynamics and Fluid Mechanics in an integrated manner. It covers the basic properties of fluids and gasses, ideal gas equation of state, fluid statics, work and heat interactions, control volume using energy, the first and second laws of thermodynamics, enthalpy, entropy, as well as Carnot, Rankine and power/refrigeration cycles. Classes 3 hrs. and lab 3 hrs. a week.

2304 Mechanics of Deformable Bodies

3 credit hours

Prerequisite: MATH 1211, and EGNE 1203.

This course is an introduction to the techniques and theories involved in the analysis of strength, deformation and stability of structural members and assemblies under the action of forces. Students are provided with the opportunity to develop their understanding of the relationships between loads applied to non-rigid bodies and the resulting stresses and strains. Topics include: stress and strain; axially loaded members; torsionally loaded members; flexural loading; combined loadings; column loading; and an introduction to the Theory of Elasticity. A design project is a component of this course. Classes 3 hrs. and lab 3 hrs. a week.

2305 Introduction to Digital Logic Circuits

3 credit hours

This course introduces students to the fundamental principles of digital system design. Topics covered include: Boolean algebra; basic logic gates; combinational logic circuits including programmable logic arrays (PLA's) and arithmetic circuits; sequential logic design involving flip-flops; counters; and finite state machines.

Classes 3 hrs. and lab 3 hrs. a week.

2306 Thermo-Fluid Engineering II

3 credit hours

Prerequisite: MATH 1211 and EGNE 2303

This course is a continuation of EGNE 2303. Topics include: buoyancy and stability; the use of continuity, control volume, Euler, Bernoulli, energy and momentum equations in engineering applications; dimensional analysis; similitude; theory of physical models; and laminar vs turbulent flows in piping/conduit systems

Classes 3 hrs. and lab 3 hrs. a week.

2307 Engineering Design II

3 credit hours

Prerequisite: EGNE 1204 and EGNE 1210.

This course is an extension of EGNE 1210 course material to include: technical drawings and computer graphics; a design project with working drawings and a technical report; and the construction and testing of a physical model.

Classes 3 hrs. a week and lab 3 hrs. a week.

2308 Electric Circuits

3 credit hours

Prerequisite: PHYS 1210 and 1211 (concurrently).

The objective of this course is to introduce the student to the fundamental laws of electric circuits and circuit parameters, the concept of time-constants, impedances and admittances and general network theorems. Topics include: Kirchhoff's Laws; Ohm's law and circuit parameters, resistive networks, loop and node equations; network theorems, super position, Thevenin-Norton; A.C. circuits, sinusoidal response, power, power factor, three-phase circuits; transients in simple circuits. A formal written report on a topic related to the history and the evolution of the field is required. Classes 3 hrs. and lab 3 hrs. a week.

2309 Probability and Statistics for Engineers

3 credit hours

Prerequisite: MATH 1211.

The topics covered include probability laws and the interpretation of numerical data, probability distributions and probability densities, functions of random variables, joint distributions, characteristic functions, inferences concerning mean and variance, tests of hypotheses, an introduction to linear regression. The course emphasizes engineering applications and makes extensive use of statistical computer packages.

Classes 3 hrs. and labs 2 hrs. a week.

2311 Circuit Analysis (Circuits II)

3 credit hours

Prerequisite: EGNE 2308.

This course builds on the introduction to electric circuits in EGNE 2308. Topics include sinusoidal steady-state response via phasor diagrams and impedance concepts; power and energy; mutual inductance and transformers; balanced and unbalanced three-phase circuits. Labs are "virtual labs" using Electronics Workbench/Spice packages on P.C. network.

Classes 3 hours and lab 3 hours a week.

2400 Engineering and Biosphere

3 credit hours

Prerequisite: CHEM 1210

The course explores the effect of engineered systems and structures on the biosphere. Topics include cell structure and function, microbiology, toxicology, and nutrient cycles. The effect of engineering projects on the ecology, environment and living systems. The application of technology and design to minimize the adverse impact of engineering activities on the biosphere is addressed. Laboratory sessions consist of tutorials and field-trips to local sites.

Classes 3 hrs. a week and lab 3hrs. a week

2401 Fundamentals of Process Engineering

3 credit hours

Prerequisites: CHEM 1213, EGNE 2303 (concurrently)

Students analyze both non-reactive and reactive process systems using the principles of mass and energy balances, phase equilibrium, vapour pressure, and the application of Raoult's and Henry's Laws. Industrial case studies and computer simulations will be used to emphasize important topics.

Classes 3 hrs. a week and lab 3 hrs. a week.

2402 Fundamentals of Environmental Engineering

3 credit hours

Prerequisites: CHEM 1213, PHYS 1211

Students are introduced to the technical fundamental of pollution control. A range of industrial sources of pollution and their respective impacts on the environment are examined. Laboratories include hands-on experimentation, field trips to local sites of interest, and guest speakers from industry.

Classes 3 hrs. a week and lab 3 hrs. a week.

English (ENGL)

Chairperson	G. Stanivukovic
Professors	E. Asp, B. Bartlett, T. Heffernan, R. Hulan, D. Kennedy, S. Kennedy, R. Perkin, G. Stanivukovic
Associate Professors	M. Barr, D. C. Hall, D. Heckerl, G. Hlongwane, A. MacLeod, S. Malton, T. Takseva, J. VanderBurgh,
Assistant Professors	L. S. Morley, S. Muse Isaacs, H. Saroukhani, A. Watson
Adjunct Professor	A. Knapp
Professors Emeriti	J. Hill, W. Katz, G. Thomas, A. Seaman, K. Tudor
Dean Emeritus	M. Larsen

Department website: www.smu.ca/academic/arts/english/

Department Mission

The Department of English Language and Literature offers a wide variety of courses leading up to both major and minor concentrations in English, as well as an honours degree. The core of the program reflects a traditional approach to English studies, including literary-historical and genre courses. What makes the department distinctive, however, are a number of courses cross-listed with other disciplines or programs, such as Atlantic Canada Studies, Women and Gender Studies, Linguistics, Irish Studies, and Creative Writing. This feature allows students to expand their area of academic study in ways that reflect interdisciplinary approaches and their own developing interests.

The Major Program

Students wishing to major in English must satisfy the general requirements set out by the Faculty of Arts, and complete forty-two (42) credit hours in English including three (3) credit hours at the Introductory level – ENGL 1205.

The Major Program (42 credit hours) consists of:

- Three (3) credit hours in ENGL 1205
- Six (6) credit hours in ENGL 2307
- Six (6) credit hours in ENGL at the 2000 level (ENGL 2205 is recommended)
- Eighteen (18) credit hours in ENGL at the 3000 level (see detailed requirements in year 3)
- Nine (9) credit hours in ENGL at the 4000 level

Suggested schedule

Year 1

- ENGL 1205 Introduction to Literature
- Six (6) credit hours from one or two of the following: PHIL 1200 (no other Philosophy course satisfies this requirement); Mathematics [including MGSC 1205; MGSC 1206; and CISO 1225].
- Nine (9) credit hours from at least two of the following Humanities: Classics, History, Religious Studies, English [other than ENGL 1205], Philosophy (other than

PHIL 1200), and Modern Languages courses on languages, literature and culture

- Twelve (12) credit hours from first year courses in the following social sciences: Anthropology, Economics, Geography, Linguistics, Political Science, Psychology and Sociology (a maximum of six (6) credits will be counted in any one area)

Year 2

- ENGL 2307 Literary Traditions in English
- Six (6) credit hours from 2000 level English courses (the Department recommends students take ENGL 2205 Practical Criticism as part of this requirement)
- Twelve (12) credit hours from Arts courses at the 2000 level (may include English courses at the 2000 level beyond the above requirement)
- Six (6) credit hours of electives

Year 3

- Nine (9) credit hours from the following ENGL 3000 level courses in the pre-Twentieth Century period:

ENGL 3331; 3344; 3347; 3348; 3404; 3408; 3410; 3411; 3412, 3415; 3416; 3419; 3444, 3445, 3446; 3447; 3452; 3458; 3481; 3482; 3483; 3484.

There may also be Special Author/Special Subject courses that fulfill the distribution requirements for 3000 level courses, if approved by the Department Chairperson.

- Nine (9) credit hours in ENGL at the 3000 level
- Six (6) credit hours from Arts courses at the 2000 level or above (may include English courses at the 3000 level beyond the above requirement)
- Six (6) credit hours of electives

Year 4

- Nine (9) credit hours from 4000 level ENGL courses
- Nine (9) credit hours of Arts electives at the 2000 level or above (may include English courses at the 4000 level beyond the above requirement)
- Twelve (12) credit hours of electives

The Minor Program in English

A minor consists of at least twenty-four (24) credit hours in English with a maximum of three (3) credit hours at the 1000 level and a minimum grade point average of 2.0. Students may also minor in Creative Writing or Linguistics.

The Minor Program in Creative Writing

Students who declare a minor in Creative Writing must take at least twelve (12) credit hours in Creative Writing in at least two of the four genres offered (fiction, poetry, drama and non-fiction).

Students are also required to take twelve (12) credit hours more in English courses beyond ENGL 1205.

Students who wish to major in English and minor in Creative Writing must take forty-eight (48) credit hours in English courses above ENGL 1205 and fulfill the requirements of both programs.

Minor in Culture, Race and Resistance in Literature

A minor in “Culture, Race and Resistance in Literature” brings together a diverse range of courses that examine issues of race, nationalism, globalization, social justice, activism, and cultural resistance. It enables students to specialize in the study of literature from transnational, translocal and interdisciplinary perspectives. The courses investigate postcolonial, anti-colonial, black and Indigenous writing alongside theories of cultural and literary analysis. The theories and literature examined cover a range of periods and cultures, and include topics such as African women’s writing, South Asian literature, Mi’kmaq literature, black Atlantic and black British literature, Irish literature, and critiques of race and popular culture. The minor offers an exciting opportunity for students to explore how literature reflects and galvanizes resistant cultural movements in ways that remold our contemporary world.

Prerequisite: English 1205 Introduction to Literature

Strongly recommended courses: ENGL 3302 Literary Theory I; and/or ENGL 3303 Literary Theory II; ENGL 3343 Cultural Studies.

The following courses already exist and are regularly offered; they can be considered to fulfill the minor credit requirement:

- ENGL 2261 Postcolonial Literature: Africa, the Caribbean, and South Asia
- ENGL 2262 Postcolonial Literature: Canada, Australia, and New Zealand
- ENGL 2461 Mi’kmaq Storytelling and Literature
- ENGL 3302 Literary Theory I
- ENGL 3303 Literary Theory II
- ENGL 3343 Cultural Studies
- ENGL 3361 World Literature in English: Selected Focus
- ENGL 3443 Irish Poetry [IRST 3443]
- ENGL 3453 Irish Drama in the 20th Century [IRST 3453]
- ENGL 3462 Post-1945 Black British Writing
- ENGL 3470 The Contemporary Novel
- ENGL 3521 North American Indigenous Literature I United States
- ENGL 3522 North American Indigenous Literature II Canada
- ENGL 3534 Literature of Modern Ireland I: The Literary Revival, 1890 – 1922 [IRST 3534]
- ENGL 3535 Literature of Modern Ireland II: After the Revival, 1922 – Present [IRST 3535]
- ENGL 4464 Postcolonial Literature: Special Topics
- ENGL 4465 Indigenous Literature Seminar
- ENGL 4466 Representations of Indigenous Womanhood.
- Special topic courses at 2000, 3000, and 4000 level (see Handbook, produced annually).

Minor in Dramatic Literature

A minor in Dramatic Literature provides students with an opportunity to specialize in drama as a literary form read within a context of staging and theatre history and from a perspective of performance theory. A dedicated minor brings together courses covering drama from a wide array of historical, thematic, international, national, and regional backgrounds, beginning with the antique drama of Greece and Rome and extending to contemporary drama and performance; it enables students to explore dramatic literature from a range of theoretical and cultural approaches that shaped the study of drama and theatre in their vibrant and diverse responses to society, politics, ideology, history, culture, gender, sexuality, and race. The minor in Dramatic Literature offers students a unique and exciting opportunity to study one of the oldest genres of literary and cultural expression and to understand it as an agent of cultural and social critique and change across its long history.

Prerequisite: ENGL 1205 Introduction to Literature.

The following courses already exist and are regularly offered, and they can be considered to fulfill the minor credit requirement:

- ENGL 2341 Introduction to Drama I (Ancient Greece to 1700)
- ENGL 2342 Introduction to Drama II (1700 to Contemporary)
- ENGL 3382 Writing Plays
- ENGL 3408 Drama and Society: Restoration to 18th Century
- ENGL 3435 Twentieth-Century European Drama
- ENGL 3437 Canadian Drama
- ENGL 3444 Shakespeare I (comedies and romances)
- ENGL 3445 Shakespeare II (history plays and problems plays)
- ENGL 3446 Shakespeare III (tragedies)
- ENGL 3447 Shakespeare’s Contemporaries
- ENGL 3451 British Drama Since 1945
- ENGL 3453 Irish Drama in the 20th Century
- Special topic courses at 2000, 3000, and 4000 level (See Handbook, produced annually). This includes the study-abroad course ENGL 3826.1: Shakespeare at Stratford-upon-Avon I (Criticism and Performance) and ENGL 4801.0: Shakespeare at Stratford-upon-Avon II (Theatre and Text).

Minor in English Language

A minor in English language allows students to study the English language as a subject, explicitly focusing on its grammar, its history and varieties, its uses and users. In taking the minor students will not only acquire extensive knowledge of English, but also learn how to describe a particular language and its varieties, and how to linguistically characterize instances of discourse in English – from everyday talk and texts to literary genres. Such explicit knowledge of English is complementary to studies of English Literature, Linguistics, Modern Languages or indeed any field where explicit knowledge of the grammar, dialects, history, and discourse patterns of English might be useful.

Prerequisite: ENGL 1205 Introduction to Literature.

Courses listed below can be taken for credit towards a Minor in English Language. On the recommendation of the program coordinator/chair of English, students may substitute a linguistics course and/or an English literature course in an area of particular interest and relevance for their program of study.

- ENGL 2212 Varieties in English [under approval, Faculty of Arts]
- ENGL 2308 The Development of English Prose Style from 1500
- ENGL 2311 Modern English Language
- ENGL 2326 Language and Gender
- ENGL 3402 History of the English Language
- ENGL 3404 Chaucer: Canterbury Tales
- ENGL 3405 Chaucer: Troilus and Criseyde
- ENGL 4427 Language, Gender, and Power
- ENGL 4493 Doing Discourse Analysis
- ENGL 4494 Approaches to Discourse Analysis
- Special topic courses at 2000, 3000 and 4000 level courses (see Handbook produced annually).

Concentration

A minimum of twenty-four (24) credit hours in English is required to obtain a concentration in English in partial fulfillment of the B.A. General degree (i.e., one with Double Arts Concentrations and a minimum of ninety (90) credit hours).

Further details are available from the Chairperson.

The Honours Program

Students wishing to major in English with Honours must satisfy the general requirements set out by the Faculty of Arts, and complete sixty (60) credit hours in English including three (3) credit hours at the Introductory level – ENGL 1205.

The Honours program (60 credit hours) consists of:

- Three (3) credit hours in ENGL 1205 Introduction to Literature
- Six (6) credit hours in ENGL 2307 Literary Traditions in English
- Six (6) credit hours at the 2000 level (see detailed requirements in year 2 - ENGL 2205 is recommended)
- Thirty (30) credit hours at the 3000 level (see detailed requirements in year 3)
- Six (6) credit hours of the Honours Seminar
- Nine (9) credit hours at the 4000 level

NOTE: Within the total 60 credit hours, at least three (3) credit hours must be selected from the following English Language courses: ENGL 2308, 2311, 3402, 4493

Suggested Schedule

Year 1

- ENGL 1205 Introduction to Literature
- Six (6) credit hours from one or two of the following: PHIL 1200 (no other Philosophy course satisfies this requirement); Mathematics [including MGSC 1205; MGSC 1206; and CISY 1225]
- Nine (9) credit hours from at least two of the following Humanities: Classics, History, Religious Studies, English [other than ENGL 1205], Philosophy (other than PHIL 1200), and Modern Languages courses on literature and culture
- Twelve (12) credit hours from first year courses in the following social sciences: Anthropology, Economics, Geography, Linguistics, Political Science, Psychology and Sociology (a maximum of six (6) credits will be counted in any one area)

Year 2

- ENGL 2307 Literary Traditions in English
- Six (6) credit hours from 2000 level English courses (the Department recommends students take ENGL 2205 Practical Criticism as part of this requirement)
- Nine (9) credit hours from Arts courses at the 2000 level (may include English courses at the 2000 level beyond the above requirement)
- Nine (9) credit hours of electives

Year 3

- Fifteen (15) credit hours, satisfying the following area requirements (with three (3) credit hours from each of Medieval and Renaissance Literature):
- Medieval: ENGL 3404, 4405
- Renaissance: ENGL 3419, 3421, 3444, 3445, 3446, 3447, 4422, 4423, 4424
- 18th Century: ENGL 3408; 3410, 3411, 3415, 3416
- 19th Century: ENGL 3344, 3347, 3348, 3481, 3482, 3483, 3484
- 20th Century/Contemporary: ENGL 3343, 3345, 3351, 3367, 3429, 3435, 3437, 3443, 3451, 3453, 3459, 3460, 3461, 3471, 3472.

There may also be Special Author/Special Subject courses that fulfill one or more of these distribution requirements for 3000 level course, if approved by the Department Chairperson

- ENGL 3302 Literary Theory I
- ENGL 3303 Literary Theory II
- Nine (9) credit hours from ENGL 3000 level courses

Year 4

- Six (6) credit hours of the Honours Seminar (topics vary from year to year; students are encouraged to check the departmental calendar for offerings)
- Nine (9) credit hours from 4000 level English courses
- Fifteen (15) credit hours of electives courses including 3 credit hours ENGL Language course selected from ENGL 2308, 2311, 3402, 4493, 4494

Course Descriptions

1205 Introduction to Literature

3 credit hours

This course introduces students to works of literature in English representing a variety of historical and cultural contexts. It develops the student's ability to interpret written texts and to write about them in an informed and organized manner.

NOTE: A PASSING GRADE IN A 1000-LEVEL ENGLISH COURSE IS NORMALLY REQUIRED FOR ENTRANCE INTO 2000-LEVEL ENGLISH COURSES.

1300 Word, Image and Power

3 credit hours

Students examine the power of words and images, and will improve their own communicative and analytic ability in writing and speaking. Topics include: memorable speeches delivered by leaders worldwide, examples from contemporary visual culture and the advertising industry, and ideas communicated across various media platforms.

2205 Practical Criticism

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course provides an introduction to the discipline of literary criticism through extensive exercises in the practical criticism of selected literary works. It is aimed at developing essential skills in close reading and a critical vocabulary with which to analyze and discuss literature, while sharpening students' attentiveness to the way in which form and content contribute to meaning in a literary work.

2261 Postcolonial Literature: Africa, the Caribbean, and South Asia

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course introduces students to postcolonial writing in English from Africa, the Caribbean and South Asia. Authors to be studied may include Chinua Achebe, Buchi Emecheta, Shyam Selvadurai, Samuel Selvon, Jamaica Kincaid, Kamala Das and Anita Desai.

2262 Postcolonial Literature: Canada, Australia, and New Zealand

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course introduces students to postcolonial writing in English from Canada, Australia and New Zealand. Authors to be studied may include Eden Robinson, Sky Lee, Rudy Wiebe, Gerry Bostock, Jack Davis and Witi Ihimaera.

2301 Nineteenth Century Crime and Detective Fiction

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course considers the development of fiction of crime, mystery, and detection during the nineteenth century, a period in which this genre flourished. Authors to be studied include Mary Elizabeth Braddon, Wilkie Collins, Arthur Conan Doyle, Charles Dickens, Henry James, E. A. Poe, and R. L. Stevenson. Attention may also be given to relevant social developments, such as the rise of the police force, advances in criminology and detection, the typology and psychology of the criminal, the "lady detective," white-collar crime and criminal networks, and the Victorian Underworld.

2302 Twentieth Century Crime and Detective Fiction

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

A study of major 20th Century stories of crime, mystery, and detection. Authors may include Agatha Christie, Raymond Chandler, Dashiell Hammett, and Sue Grafton.

2303 Fictions of Finance

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course examines the representation of money and finance in a range of genres – including fiction, drama, poetry, and film – and from a range of literary periods. Authors to be considered include William Shakespeare, Charles Dickens, Fyodor Dostoevsky, Theodore Dreiser, George Eliot, D. H. Lawrence, F. Scott Fitzgerald, Arthur Miller, and Martin Amis. Topics to be addressed include narratives of financial success and failure, gambling and risk, the expansion of capitalism and the stock market, lotteries and auctions, fraud and financial crime, and hoarding and expenditure.

2307 Literary Traditions in English

6 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course examines literature written in English from Old English to the present with the goals of developing awareness of literary history and of exploring relationships between literature and its social and cultural contexts.

2308 Development of English Prose Style [LING 2308]

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

The course offers a close study of the lexical, syntactic and rhetorical choices in very short selections of prose writing from 1500 to the present. The passages will be studied in chronological order, with a view to observing developments in prose style in each period.

2311 Modern English Language [LING 2311]

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

The course will examine the nature of modern English semantics (meaning), syntax ('wordings'), and morphology (word formation). Some attention is also paid to intonation (soundings). The course is presented using contemporary grammatical theories.

2312 Varieties of English

3 credit hours

Students investigate English regional and social dialects, and functional varieties adapted to different contexts and genres. Ideas about 'standard English', attitudes to English varieties, attention to their historical origins, and sources of stability and change in English will also be addressed.

2313 Narrative in Fiction and Film

6 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

A study of a number of important works of fiction that have been successfully adapted to film. Students consider the specific properties that are unique to each medium and the implications (formal, thematic, social and political) involved in translating from page to screen.

2314 Literary Legends: Don Juan

3 credit hours

Prerequisites: Three (3) credit hours in ENGL at the 1000-level

Students examine the mythical figure of Don Juan, the notorious seducer and trickster of Seville. Students track the complex evolution of this character through a rich medium of literary and cultural forms: drama, poetry, fiction, and philosophy, music, and film. The centerpiece of the course is Mozart's magnificent opera *Don Giovanni*.

2315 Masterpieces of Western Literature (Pre-Renaissance)

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

An historical survey of the major works of Western civilization from classical Greece to the Renaissance.

2316 Masterpieces of Western Literature (Post-Renaissance)

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

An historical survey of the major works of Western civilization from the Renaissance to the 20th century.

2317 Literary Legends: Faust

3 credit hours

Prerequisites: Three (3) credit hours in English at the 1000-level

Students examine the mythical figure of Faust, the disgruntled professor who sells his soul to the Devil (Mephistopheles) in exchange for absolute power and knowledge. The history of Faust will be explored through a

variety of representations in drama, poetry, fiction, music, opera, and film.

2318 The Writer and Nature

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

Ranging from 18th century meticulous observers of the natural world through the Romantic poets to modern writers who envision an apocalyptically threatened environment, this course seeks to trace the shifts in literary approaches to nature within different English-speaking traditions and to follow the changing perceptions of the place of the human being within the natural landscape.

2320 Writing by Women I [WMST 2320]

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course focuses on women's literature from the middle ages to the end of the eighteenth century. It covers a variety of literary genres and examines some of the theoretical, historical, and practical concerns pertaining to women's writing.

2321 Writing by Women II [WMST2321]

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course focuses on literature from the nineteenth century to the present day. It covers a variety of literary genres and examines some of the theoretical, historical, and practical concerns pertaining to women's writing.

2325 The Media in Everyday Life

3 credit hours

Students analyze media texts, environments, and practices encountered in everyday life, guided by longstanding debates about how media affects and reflects our imaginative conceptions of the world.

2326 Language and Gender [LING 2326]

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course examines the role of language in forming popular perceptions about the position of women and men in society. The topics include a comparison between English and other languages in matters of grammar, vocabulary, and semantics; a comparison between modern English and earlier stages; and an enquiry into the origin of authoritarian notions of correctness. The historical role of women as users and teachers of language is also considered. Present-day attitudes, implementation of non-sexist language guidelines, and the struggle to establish non-discriminatory language practices are also included in the study.

2327 The Bible and English Literature

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

A study of the influence of the Bible on English literature from Anglo-Saxon times to the present. Particular emphasis will be given to the King James Bible (1611). Some attention will be paid to the ancient context and literary forms of the Jewish and Christian scriptures and to recent theoretical approaches to the relationship of the Bible and literature.

2328 The Catholic Tradition in Modern British Literature

3 credit hours

This course begins with the nineteenth-century Catholic revival, with some attention to John Henry Newman and Gerard Manley Hopkins. The main focus is the twentieth-century Catholic novel, including Evelyn Waugh, Graham Greene, Muriel Spark, and David Lodge.

2341 Introduction to Drama I

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course is a survey of representative plays from ancient Greece to 1700.

2342 Introduction to Drama II

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course is a survey of representative plays from 1700 to the present.

2356 The Development of Science Fiction to the New Wave

3 credit hours

The course will explore visionary and speculative literature ranging from early nineteenth century speculative fictions up to and including the New Wave. Topics such as the following will be discussed: the influence of the classical writers M. Shelley, J. Verne, and H.G. Wells; the importance of the "pulp" magazines of the 1920s and 1930s and 1940s; Golden Age writers and writing; and the development of the New Wave movement.

2360 The Fantastic

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course will trace the rise of fantastic literature into a variety of modern cultural forms (novel, short story, graphic novel, film, gaming) and explore the ideologies it encodes. Examining how the fantastic filters the mythic, medieval and romantic, we will be in a position to speculate on how fantasy's various manifestations both tie us to the past and reconstruct identity and society in the postmodern era.

2364 The Modern Novella

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

A course designed to introduce the student to a wide range of short novels which illustrate both the rich diversity and the fundamental unity of concern which characterize the modern imagination and cultural consciousness.

2380 Literature of Atlantic Canada [ACST 2380]

6 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level.

An examination of the literature and literary background of Atlantic Canada. Emphasis in the first semester is on the 19th and early 20th centuries; in the second semester it is on contemporary writing.

2391 The Study of Short Fiction

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course is designed to introduce students to short fiction as well as to the analytical concepts necessary for its critical appreciation and judgment.

2392 The Study of the Narrative

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course is designed to introduce students to the novel in English as well as to the analytical concepts necessary for its critical appreciation and judgment.

2393 The Study of Poetry

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

Students are introduced to methods and problems in poetics and the reading and analysis of English poetry for the purpose of preparing students for advanced work.

2461 Mi'kmaq Storytelling and Literature

3 credit hours

Prerequisites: ENGL 1205

Students are introduced to Mi'kmaq literature and oral storytelling tradition in order to examine how Mi'kmaq people and culture have endured, adapted and flourished. As the original inhabitants of the lands now known as Canada's Maritime provinces, the Mi'kmaq peoples are the holders of a wealth of Indigenous knowledge. These stories, both oral and written, give evidence to the deep connections the Mi'kmaq have with this coastal land base, and exhibit their intimate knowledge of all creatures native to the area.

2463 Imagining the North in Canadian Literature

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

Students engage in an interdisciplinary exploration of the representation of Canada as “true north” in literature and media. Beginning with Glenn Gould’s “The Idea of North” with emphasis on the mutual influence of the various genres through which Canadians imagine the north, including drama, fiction, historiography, and poetry.. The course includes selections of Inuit literature written in English..

2511 Reading Film

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level.

Students are introduced to the techniques, critical approaches and fundamentals of film language (sounc, mis-en-scène, cinematography, editing and narrative), used in the discipline of film studies to read, analyze, and interpret narrative films.

Classes 2 hours and Lab/Screening 2 hours.

2513 Introduction to Indigenous Literature

3 credit hours

Prerequisite: ENGL 1205

Students are introduced to contemporary Indigenous literatures of Turtle Island, in English, through writing by Indigenous peoples in Canada (First Nations, Inuit, and Métis) and Native Americans in the U.S. Through the lens of Indigenous worldview and intellectual ways of knowing, class discussion and analysis centers on social, political, historical, spiritual, and environmental issues with an eye towards decolonization.

2520 Irish Folklore [IRST 2520]

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

A comprehensive study of folklore in Ireland. All aspects of folklore will be examined, with special emphasis on the storytelling, song, and folk drama traditions.

2800 - 2825 Special Author, Special Subject

6 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

The subject matter of particular courses will be announced from time to time. These courses are designed to examine authors and topics not dealt with in other 2000-level courses.

2826 - 2849 Special Author, Special Subject

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

The subject matter of particular courses will be announced from time to time. These special half-credit courses provide the opportunity to study a particular author or subject in depth and detail. They are designed to examine authors and topics not dealt with in other 2000-level courses or to allow

for a different approach to the study of authors and/or topics already covered in other courses.

3302 Literary Theory I

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course provides an introduction to the major issues, figures, and theoretical approaches in the discipline of literary criticism. This section covers the ancients through to nineteenth-century writers.

3303 Literary Theory II

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course provides an introduction to the major issues, figures, and theoretical approaches in the discipline of literary criticism. This section covers twentieth century through to contemporary writers.

3310 Classical Literature [CLAS 3310]

3 credit hours

Prerequisite: 6 credit hours of CLAS or ENGL courses.

This course is a survey of the literature of ancient Greece and/or Rome in English translation. Course content will be organized either thematically, for example on women in Classical literature or metamorphosis, or by genre, for example on epic, tragedy, or comedy. The course is intended for students who have some background in Classics and/or Classical literature.

3331 History of Children’s Literature

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

A survey of children’s literature to the end of the nineteenth century. The literature will be read and understood in its historical context. The emphasis will be on the works generally considered classics of children’s literature.

3343 Cultural Studies

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This is an interdisciplinary course that explores culture and contexts within which culture is produced, disseminated, and consumed. The course introduces students to some of the basic cultural studies theories and methodologies, like psychoanalysis, economics, sociology, but also film and media studies, gay and lesbian theories, feminist, ethnic, and popular-culture studies.

3344 Canadian Literature to 1920

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

An introduction to the drama, fiction, prose and poetry written in early Canadian literary history emphasizing the colonial and post-Confederation periods.

3345 Canadian Literature After 1920

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

An introduction to the drama, fiction, prose and poetry written in Canada since 1920 studied in critical and historical context.

3347 American Literature 1820-1865

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

A survey of major works of American literature from 1820 to the end of the Civil War. Authors may include Dickinson, Douglass, Emerson, Hawthorne, Melville, Thoreau, and Whitman. This course, along with American Literature 1865-1914, provides students with a sound historical understanding of this most formative period in American literature.

3348 American Literature 1865-1914

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

A survey of major works of American literature from 1865 to the eve of World War I. Authors may include Cather, Chopin, Crane, DuBois, Dreiser, James, London, Twain and Wharton. This course, along with American Literature 1865-1914, provides students with a sound historical understanding of this most formative period in American literature.

3349 Literature in English 1350-1500

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course provides an in-depth study of various aspects of late medieval English literature, excluding Chaucer. Readings may cover genres such as medieval romance, drama, hagiography and devotional prose as well as works by Langland, the Gawain poet, Lydgate, Malory, the Wakefield dramatist, and Julian of Norwich.

3351 American Fiction from 1950 to the Present

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

A study of American fiction since World War II. Authors to be studied are chosen partly because they interpret some important aspects of the American national experience during this period and partly because they raise basic questions about the aesthetics of fiction.

3361 World Literature in English: Selected Focus

3 credit hours

3367 Canlit: the 60s and 70s

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

A study of the emergence of “Canlit” in the 1960s and 1970s with emphasis on the development of cultural institutions. In addition to the literature produced in the period, including representative poems, plays, short stories and novels, the course will examine the influence of thematic criticism, regionalism, and nationalism on the creation of Canadian canons.

3375 Writing Fiction I

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

Additional prerequisite: submission of samples of writing prior to registration and permission of Creative Writing Coordinator.

A course in the many techniques, skills, goals and problems in writing fiction. The emphasis is on analyzing student stories in workshops, but lectures and writing exercises may also be included.

3376 Writing Fiction II

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

Additional prerequisite: submission of samples of writing prior to registration and permission of Creative Writing Coordinator.

This course encourages students to experiment with literary techniques and to develop their own writing style. Students will participate in workshops, read widely in the genre of the short story and be encouraged to rethink and revise their own fiction.

3381 Writing Poetry

6 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

Additional prerequisite: submission of samples of writing prior to registration and permission of Creative Writing Coordinator.

This course provides students with an opportunity to write and workshop their own poetry. The great range of choices available to poets in terms of form, rhythm, voice and diction will be explored. The emphasis will be on student submissions, but the work of published poets will also be discussed.

3382 Writing Plays

6 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

Additional prerequisite: submission of samples of writing prior to registration and permission of Creative Writing Coordinator.

This course provides students with the opportunity to write and workshop their own plays. The literary aspects of drama, as well as its practical and production aspects, will be explored. Though the course focuses on student efforts, the works of classic and contemporary playwrights may also be discussed.

3383 Writing Prose - Non-Fiction

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

Additional prerequisite: submission of samples of writing prior to registration and permission of Creative Writing Coordinator.

A creative writing course dealing with such forms of prose as travel literature, essays, reviews, memoirs, biographies, and journals. Students will experiment with various forms and critique each other's efforts in a workshop format. Published examples of non-fiction prose will be read and discussed.

3402 History of the English Language [LING 3402]

6 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

A survey of the development of the English language from its earliest stages to the present. Representative texts are used from each period so that students can acquire first-hand knowledge of the successive changes in grammar (syntax, morphology, and phonology) and vocabulary.

3404 The Canterbury Tales

3 credit hours

Prerequisite: 6 credits of ENGL

This course is an introduction to the poet Geoffrey Chaucer with a detailed study of *The Canterbury Tales*. The focus will be on reading Chaucer's work in Middle English and on the literary, social and historical context in which it was produced. Students are not required to have any prior knowledge of Middle English.

3405 Chaucer: Troilus and Criseyde

3 credit hours

Prerequisites: 6 credits of ENGL

This course is an introduction to the poet Geoffrey Chaucer with a detailed study of *Troilus and Criseyde*. The focus will be on reading Chaucer's poetry in Middle English and on the literary, social and historical context in which it was produced.

Note: This course will be offered in rotation with ENGL 3404; please see the department handbook for offerings year-to-year. Students are not required to have any prior knowledge of Middle English.

3406 Arthurian Literature in the Middle Ages

3 credit hours

Prerequisites: 6 credits of ENGL

Students examines the tradition of Arthurian literature and its pervasiveness during the middle ages in Western Europe, including themes such as chivalry, courtly love, imperialism

and the grail quest. The focus is on medieval versions of Arthurian legends but will also take up their adaptability to revisionist viewpoints of different periods and genres. Students are not required to have any prior knowledge of Middle English.

3408 Drama and Society - Restoration to 18th Century

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course gives particular attention to the comedy of manners and its principal exponents such as Etherege, Wycherley, Congreve and Sheridan. Also studied are sentimental comedy, heroic and domestic tragedy, and the ballad opera, as well as the way social and political development affected the theatre.

3410 Early 18th-Century Literature

3 credit hours

Prerequisites: Three (3) credit hours in English at the 1000-level

Students examine English literature written during the Restoration period and early eighteenth century, with a focus on poetry and prose. Works by authors such as John Dryden, Anne Finch, Samuel Pepys, Alexander Pope, and Jonathan Swift are studied.

3411 Late 18th-Century Literature

3 credit hours

Prerequisites: Three (3) credit hours in English at the 1000-level

Students examine English literature written during the late eighteenth century, with a focus on poetry and prose. Works by authors such as Edmund Burke, Frances Burney, William Cowper, Thomas Gray, and Samuel Johnson are studied.

3412 Restoration and 18th Century Literature

6 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course focuses on the various forms of English poetry and prose between 1660 and 1800. It includes poets such as Dryden, Finch, Pope, and Gray, and writers of prose such as Swift, Johnson, Burney and Boswell.

3415 The Eighteenth-Century Novel

3 credit hours

Prerequisites: Three (3) credit hours in English at the 1000-level

Students examine the development of the English novel in the eighteenth century. Works by authors such as Daniel Defoe, Samuel Richardson, Henry Fielding, Ann Radcliffe, and Jane Austen are studied.

3416 The Romantic Movement

6 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course studies the origins and development of the English Romantic movement. Major emphasis will be placed on the works of Blake, Wordsworth, Coleridge, Shelley, Keats and Byron.

3419 English Poetry and Prose of the 16th Century

3 credit hours

Prerequisite: twelve (12) credit hours in ENGL at the 2000-level or above.

The course focuses on English poetry and prose written in the 16th century, and on the cultural and social context within which this literature was produced. Some writers that may be studied include More, Wyatt, Surrey, Shakespeare, Marlowe, Lyly, Sidney, Spenser, Nashe, Whitney, Laver, Stuart and Queen Elizabeth I.

3421 English Poetry and Prose of the 17th Century

3 credit hours

Prerequisite: twelve (12) credit hours in ENGL at the 2000-level or above.

The course focuses on English poetry and prose written in the 17th century, and on the cultural and social context within which this literature was produced. Some of the writers that may be studied include Donne, Jonson, Marvell, Milton, Traherne, Herbert, Dryden, Florio, Bacon, Burton, Browne, Speght and Wroth.

3428 20th Century Poetry

6 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

A study of 20th century poetry in English. British, American and Canadian poetry of the Modernist period and the post-World War II period is given special emphasis.

3429 American Literature 1914-1950

3 credit hours

Prerequisite: Twelve (12) credit hours in ENGL at the 2000-level or above.

A study of major American modernist writers of fiction and poetry from the turn of the twentieth century until the period just after World War II. Writers studied may include Hemingway, Fitzgerald, Steinbeck, Eliot, Pound and Stevens.

3435 20th Century European Drama

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

A study of the principal European dramatists and theatre movements in the present century with emphasis on the ones that have most influenced drama written in English. Reference is made to works by such dramatists as Ibsen, Strindberg, Chekhov, Pirandello, Brecht, Beckett and Ionesco.

3437 Canadian Drama

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

A course in Canadian drama and theatre history with an emphasis on audience and performance using collaborative and collective study methods. The course covers published plays, radio and television drama, and live performance.

3443 Irish Poetry [IRST 3443]

3 credit hours

Prerequisite: IRST 1215 or IRST 1216 or ENGL 2393

This course will examine recent Irish poetry, beginning with W. B. Yeats and concluding with an extended analysis of the poetry of Northern Ireland. We will be placing poems in cultural context, but also examining the formal aspects of the work. Students will be required to read a considerable amount of Irish social and cultural history, as well as some theoretical works about poetry and poetics.

3444 Shakespeare I

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

The subject of this course is Shakespeare's comedies and romances.

3445 Shakespeare II

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

The subject of this course is Shakespeare's history plays and problem plays.

3446 Shakespeare III

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

The subject of this course is Shakespeare's tragedies.

3447 Shakespeare's Contemporaries

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course studies selected plays by such writers as Kyd, Marlowe, Dekker, Jonson, Beaumont and Fletcher, Webster, Middleton, Marston, and Heywood.

3451 British Drama since 1956

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

The "overnight revolution" in British Theatre in 1956 produced successive waves of outstanding dramatists who will be studied in the course, including Osborne, Pinter, Arden, Bond, Stoppard, Ayckbourn and Shaffer. The work of three major companies which helped to promote them, the Royal Court Theatre, the Royal Shakespeare Company and the National Theatre Company, will also be featured.

3453 Irish Drama in the 20th Century [IRST 3453]

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course studies Irish drama from the founding of the Irish National Theatre society in 1903 up to the present time, including the works of Yeats, Hyde, Lady Gregory, Synge, Shaw, O'Casey, and Beckett.

3458 History and Theory of the Novel I

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course will serve as an introduction to the critical reading of the novel. We will study the historical, cultural, and philosophical climate that allowed for the emergence of the novel in the eighteenth century and will track the changes in narrative style, and the implications of these changes, from realism to modernism to postmodernism to post-colonialism. History and Theory of the Novel I will consider the novel in the eighteenth and nineteenth century.

3459 History and Theory of the Novel II

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course will serve as an introduction to the critical reading of the novel. We will study the historical, cultural, and philosophical climate that allowed for the emergence of the novel in the eighteenth century and will track the changes in narrative style, and the implications of these changes, from realism to modernism to postmodernism to post-colonialism. History and Theory of the Novel II will consider the novel from the twentieth century to the contemporary period.

3460 British Literature, 1900 - 1945

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

The course surveys British literature from the beginning of the twentieth century to the end of the Second World War, and includes works of poetry, prose, fiction, and drama. Attention will be paid to the social, cultural, and historical contexts of the literature, with reference to such major events as the two world wars and the depression. Authors studied may include George Bernard Shaw, Virginia Woolf, D.H. Lawrence, T.S. Eliot, Graham Greene, and W.H. Auden.

3461 British Literature, 1945 - 2000

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

The course surveys British literature from the end of the second world war to the conclusion of the twentieth century, and includes works of poetry, prose, fiction, and drama. Attention will be paid to the social, cultural, and historical contexts of the literature, with reference to topics such as the end of the British empire, the cold war and its aftermath, and

the increasing importance of the electronic media. Authors studied may include Doris Lessing, Philip Larkin, Ted Hughes, Harold Pinter, Margaret Drabble, and Ian McEwan.

3462 Post-1945 Black British Writing

3 credit hours

Prerequisites: ENGL 1205

Students are introduced to post-1945 black British and Caribbean literatures. Through the work of key thinkers read alongside a selection of generically diverse texts (fiction, film, poetry), students will examine the historical, political, and aesthetic debates that have shaped the field of Black British studies. Writers and filmmakers investigated may include: Sam Selvon, Linton Kwesi Johnson, Hanif Kureishi, Bernardine Evaristo, Caryl Phillips, Zadie Smith, John Akomfrah, and the Black Audio Film Collective.

3470 The Contemporary Novel

3 credit hours

Prerequisites: Three (3) credit hours in ENGL at the 1000-level

From apocalyptic preoccupations, to environmental catastrophe, to mobile populations, to late capitalism and neo-liberalism, to questions of the non-human rights discourse, to the impact of globalization on literature and the understanding of the literary, this course will track the concerns and form of twentieth-first century novel in the first decades. Novelists might include: Chan Koonchung; Cormac McCarthy; Kazuo Ishiguro, Chika Unigwe, Aravind Adiga, Margaret Atwood, Amitav Ghosh.

3471 Contemporary Canadian Fiction

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

An advanced course in Canadian fiction produced in the 1970s, 1980s, and 1990s that gives students an opportunity to consider selected novels and short stories in some depth. Texts are considered within the context of Canadian literary criticism, history, and theory.

3472 Contemporary Canadian Poetry

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

An advanced course that considers questions of genre and form in Canadian poetry after 1965. Selected collections of poetry are studied within the context of Canadian literary criticism, history, and theory. Specific topics covered include the long poem, the lyric and visual poetry.

3481 The Nineteenth Century British Novel I

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

Students study the British novel in the first half of the nineteenth century, focusing on writers such as Jane Austen, Emily Brontë, Charlotte Brontë, William Makepeace Thackeray, Eliabeth Gaskell, the early Charles Dickens and George Eliot. Attention will be paid to the style and narrative

technique of the novels studied, to their place in the cultural history of the period, and to their relationship to their social and historical contexts.

3482 The Nineteenth Century British Novel II

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

Students study the British novel from the mid-Victorian period to the fin-de-siècle, focusing on writers such as the later Charles Dickens, Wilkie Collins, George Eliot, Thomas Hardy, Arthur Conan Doyle, R.L. Stevenson, Oscar Wilde and Henry James. Attention will be paid to the style and narrative technique of the novels studied, to their place in the cultural history of the period, and to their relationship to their social and historical contexts.

3483 Victorian Poetry and Prose I

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course focuses on the poetry and prose of the early Victorian period, including poets such as Elizabeth Barrett Browning, Robert Browning, and Alfred, Lord Tennyson, and prose writers such as Thomas Carlyle and John Stuart Mill. Attention will be paid to the way that Victorian poetry develops out of the Romantic Movement, and to the relationship between literature and the political and social context, focusing on topics like reform and the industrial revolution.

3484 Victorian Poetry and Prose II

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course focuses on the poetry and prose of the later Victorian period, including poets such as Matthew Arnold, Christina Rossetti, and Gerard Manley Hopkins, and prose writers such as John Henry Newman, Charles Darwin, Matthew Arnold, Walter Pater, and Oscar Wilde. Attention will be paid to the aesthetic movement, the definition of culture, and the crisis of religious faith.

3500 Contemporary Canadian Irish Prose [IRST 3500]

3 credit hours

Prerequisite: six (6) credit hours in ENGL, IRST or HIST

This course examines the work of Canadian authors who have drawn on Ireland, Irish themes or the Irish in Canada in their writings, and the work of Irish-born authors living in Canada whose works contain significant Canadian content. Following an overview of the range of earlier Canadian Irish writings, students will read and discuss a selection of recent fiction and non-fiction texts by authors such as Charles Foran, Jane Urquhart, Brian Moore, Emma Donoghue, Peter Behrens and John Moss.

3511 Film and the City

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 2000-level.

Students will explore material and conceptual connections between film and the city—two of the most pervasive influences on the twentieth and twenty-first centuries. Guided by key theorists of city space and cinema, students will pursue textual analysis of films that articulate social, cultural, spatial, and temporal concerns representative of urban lived experiences.

Classes 2 hours and Lab/Screening 2 hours.

3512 Contemporary Canadian Film and Television

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 2000-level.

Students will critique foundational concepts, policies, and practices considered important to contemporary Canadian film and television since 1980, through the discussion and analysis of film and television texts.

Classes 2 hours and Lab/Screening 2 hours.

3518 Canadian Nature Writing

3 credit hours

Prerequisite: 9 credit hours in English at the 2000-level or above.

A course in the wide variety of "nature writing" by Canadian authors, including poetry, narrative and descriptive non-fiction (wilderness writings, agricultural accounts, naturalists' essays), and prose of environmental and ecological concern. Authors studied could range from Mi'kmaw story-tellers, Harry Thurston, and Don McKay to Mina Hubbard, Don Gayton, and Sharon Butala.

3521 North American Indigenous Literature: United States

3 credit hours

Prerequisites: ENGL 1205

Students are introduced to the literature of the Indigenous peoples of North America. Beginning with the oral creationary stories and moving into written works from the 19th–21st centuries, students examine the distinct styles and central themes found in contemporary writing by Native authors in the United States. Students are expected to identify the unique complexities that emerge in the literature, such as issues of voice, gender, experience, critical theory, racism, Indigenous intellectualism, and identity.

3522 North American Indigenous Literature: Canada

3 credit hours

Prerequisites: ENGL 1205

Students study the works by First Nation, Inuit and Metis writers in Canada, and examine the issues of colonialism, voice, resistance and empowerment, as well as culture, spirituality and intellectual tradition as key themes. Along with exploring the familiar genres of Western writing – autobiography, poetry, short stories, drama, and the novel students address unique approaches to literature as developed by the authors, as well as critical approaches that originate from Indigenous communities.

3534 Literature of Modern Ireland I: The Literary Revival, 1890-1922 [IRST 3534]

3 credit hours

Prerequisite: 9 credit hours in English at the 2000-level or above.

This course will examine the literature of the Irish Literary Revival with a strong emphasis on social and cultural context. Writers to be studied will include W. B. Yeats, Lady Gregory, J. M. Synge and James Joyce.

3535 Literature of Modern Ireland II: After the Revival, 1922-Present [IRST 3535]

3 credit hours

Prerequisite: 9 credit hours in English at the 2000-level or above.

This course will examine the literature of modern Ireland after the revival with a strong emphasis on social and cultural context. Writers to be studied will include Elizabeth Bowen, Brendan Behan, Kate O'Brien, Flann O'Brien, Patrick Kavanagh, Seamus Heaney and Medbh McGuckian.

3788 Literature and Culture in Celtic Tiger Ireland [IRST 3788]

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

This course will examine the culture and literature produced in the period of economic expansion in Ireland known as the 'Celtic Tiger'. Students will examine how writers, artists, film-makers and musicians responded to the growth of a neo-liberal Irish society, in which the hitherto dominant position of the spiritual hegemony of the Catholic Church was replaced by an emphasis on material growth and secular individualism.

3791 Literatures of the Black Atlantic

3 credit hours

Prerequisites: ENGL 1205

Students examine transnational literatures from African, Caribbean, European and North American contexts with a focus on the multidirectional networks and the distinctive poetics of water that constitute the historical and literary formation of the black Atlantic. Writers examined may include; Olaudah Equiano, Phillis Wheatley, Claude McKay, James Baldwin, Derek Walcott, Dionne Brand, Lawrence Hill, Bernardine Evaristo and Caryl Phillips.

3800 - 3825 Special Author, Special Subject

6 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

The subject matter of particular courses will be announced from time to time. These courses are designed to examine at an advanced level authors and topics not dealt with in other 3000-level courses.

3826 -3849 Special Author, Special Subject

3 credit hours

Prerequisite: Three (3) credit hours in ENGL at the 1000-level

The subject matter of particular courses will be announced from time to time. These special half-credit courses provide the opportunity to study a particular author or subject in depth and detail. They are designed to examine at an advanced level authors and topics not dealt with in other 3000-level courses or to allow for a different approach to the study of authors and/or topics already covered in other courses.

STUDENTS SHOULD NORMALLY HAVE COMPLETED NINE(9) CREDIT HOURS IN ENGLISH AT THE 2000 OR 3000 LEVEL BEFORE TAKING 4000 LEVEL ENGLISH COURSES**4405 Advanced Studies in Medieval Literature**

3 credit hours

Prerequisite: One of ENGL 3404, 3405, 3406, or permission of the instructor.

The emphasis in this course may include Theories of Authorship and Reading, Urban Literature, or the Heroic and the Monstrous. Readings may cover genres such as medieval romance, drama, or hagiography as well as works by Langland, Gower, Lydgate, Hoccleve, the Wakefield dramatist, and Julian of Norwich.

4417 Feminist Literary Theory [WMST 4417]

3 credit hours

This course will engage students in a study of feminist literary theory. Some of the most influential theorists in this area will be analyzed as well as the dominant cultural systems to which they have responded. Students will not be required to have any prior knowledge of the field.

4422 Studies in Renaissance Love Poetry

3 credit hours

The course focuses on a representative selection of Renaissance love poetry in its cultural, social and philosophical contexts. It examines the poetic strategies used to explore the meaning and value of love in its relation to sexuality and gender. Special attention will be given to the sonnet form, its relationship to the courtly love tradition and the cult of the "Virgin Queen," Elizabeth I, but other poetic genres will be studied as well. Intellectual and thematic contexts will be constructed from various classical and Italian texts, such as Plato's *-Symposium-*, the poems of Catullus and Sappho and Petrarch's sonnets. Writers studied may include Wyatt, Sidney, Spenser, Marlowe, Cavendish, Wroth, and Marvell.

4423 John Donne and the Literary Traditions of the Renaissance

3 credit hours

This course will focus on the work of John Donne, an influential early 17th c. English writer, the founder of the so-called "metaphysical" school of style. Through his work, students will become acquainted with various social and cultural contexts of the Renaissance. Readings will include selections from Donne's devotional and love poems, elegies, verse epistles, sermons and other prose. Also, Donne's work will be compared to the work of other Renaissance writers,

and placed within the context of the European Baroque, as represented in visual art and literature.

4424 Renaissance Literature: Advanced Study

3 credit hours

The subject of the course will vary from year to year. It allows the opportunity to explore an aspect of Renaissance literature in more depth than is possible in other courses. The following are some examples of possible topics: a single major author or group of authors from the period (e.g. Spenser, Bacon, More); a literary movement or form (e.g. the Metaphysical school of poetry; the Cavalier school of poetry; the epic; the sermon; a social or cultural issue (e.g. "the woman issue"; literature and the institution of the Elizabethan or Jacobean Court); or a close study of one of the major literary works of Renaissance era (*The Faerie Queene*, *Paradise Lost*, *The Anatomy of Melancholy*)

4425 Advanced Studies in 18th - Century and Romantic Literature

3 credit hours

This course explores an aspect of Eighteenth-Century or Romantic literature in more depth than is possible in other courses. The following are examples of possible topics: a single major author or group of authors from either or both periods (e.g. Dryden, Pope, Blake, Hemans); a literary movement or form (e.g. verse satire or the literature of sensibility); a social or cultural issue (e.g. Romanticism as a reaction to Enlightenment, secularization); or close study of a major work (e.g. "The Prelude") or of work in a narrowly-defined historical period (e.g. the 1790s poetry of rebellion).

4426 Advanced Studies in Canadian Literature

3 credit hours

Students study a particular author, genre, theme, and/or movement in Canadian Literature intensively. While the topics will vary, the course highlights the literature, cultural, and material conditions in which Canadian literature is produced and received.

4427 Language, Gender and Power [LING 3427; WMST 4427]

3 credit hours

This course examines the role of language and its use in constructing and negotiating social positions of men and women and by men and women. It compares discourse strategies used by powerful/powerless speakers and gender-associated discourse strategies. It examines dialect and generic features used in constructing and maintaining social identities and differences.

4431 The Modern Irish Novel [IRST 4431/LING 4431]

3 credit hours

This course will involve a study of the modern Irish novel, placing each work in its social and cultural context. It may include works by James Joyce, Elizabeth Bowen and/or Samuel Beckett, as well as a selection of contemporary novels by writers like Anne Enright and John Banville.

4441 The Irish Short Story [IRST 4441]

3 credit hours

This course will examine the short story as a major form in the fiction (in English) of Ireland, tracing its development from the Irish folktale to the sophisticated modern stories of

internationally read practitioners such as Joyce, O'Connor, O'Faolain and Lavin.

4455 The Modern Novel

3 credit hours

A close critical analysis of representative works of a number of prominent late 19th and 20th century novelists in the light of certain literary, cultural, socio-political and philosophic tendencies which have exercised a decisive influence in the formation of the modern imagination.

4456 The Postmodern Novel

3 credit hours

This course focuses on some of the major novelists of the second half of the twentieth century in the context of the cultural and political climate that has given rise to this fiction and the term postmodernism.

4457 Advanced Studies in American Literature

3 credit hours

This advanced course in American literature offers intensive treatment of authors, genres, and themes addressed at the intermediate level. Possible topics in the course may include: (1) intensive study of single authors in relation to historical trends in literary criticism ('reception history'); (2) intensive exploration of particular currents in the development of a specific genres; (3) concept-based courses; or (4) broad-based 'cultural studies' approaches to American literature.

4464 Postcolonial Literature: Special Topics

3 credit hours

This course examines the literatures of specific postcolonial regions. These regions may include Canada, the Caribbean, Africa, New Zealand, Australia and South Asia.

4465 Indigenous Literature Seminar

3 credit hours

In addition to studying theories of race and indigeneity, students explore representative works by Indigenous authors in depth and to conduct original research on Indigenous literatures. Students explore the continuity of oral and written traditions in the literary, cultural, and material contexts in which the literature is written, spoken, and read.

4466 Representations of Indigenous Womanhood

3 credit hours

Prerequisites: ENGL 1205

Students explore writings and cultural productions (including biography, fiction, poetry, theater, media, and film) by and about Indigenous women of North America. This group has experienced oppression and dislocation from land, communities, spirituality, and traditional roles as a result of European colonization. Students examine how such dislocations and acts of oppression arose from creation and perpetuation within colonizer literature and media productions of inaccurate and stereotypical images

4470 The Rise and Fall of the Printed Book

3 credit hours

This course focuses on the history of the printed book and examines the phenomenon of mass literacy and its implications in the development of different types of literature.

4475 Writing Fiction – Advanced

6 credit hours

Prerequisite: written permission of Creative Writing Coordinator.

A course designed for students with some experience in writing fiction. Many aspects of the writer's craft, from the germination of a story to the polishing of a final draft, will be explored in workshops. Students who have not completed either ENGL 3375 or 3376 will be asked to submit a sample portfolio of their work before registration.

4477 Writing Poetry (Advanced)

3 credit hours

Prerequisite: ENGL 3381 or, prior to registration, submission of portfolio to creative writing coordinator.

An advanced creative writing course, which provides students with opportunities to develop their craft beyond its beginning stages and to have their poems discussed in workshops. The course may include emphasis on poem sequences, long poems, and poets' poetics, including their prose commentaries on subjects ranging from sources of inspiration to arguments about technique.

4485 Victorian Literature – Advanced Study

3 credit hours

The subject of the course will vary from year to year. It allows the opportunity to explore an aspect of Victorian literature in more depth than is possible in other courses. The following are some examples of possible topics: a single major author or group of authors from the period (e.g., Charles Dickens or the Brontës); a literary movement or form (e.g., the aesthetic movement or the sensation novel); a social or cultural issue (e.g., the "woman question" or industrialism in literature); or the literature of a narrowly defined historical period (e.g., the novel in the 1840's or the literature of the *fin de siècle*).

4488 The Post-1945 British Novel

3 credit hours

Students examine the British novel from the end of the Second World War to the late twentieth century. Topics covered include realism, postmodernism, and the emergence of new female and postcolonial voices. Writers studied may include Muriel Spark, John Fowles, David Lodge, and V.S. Naipaul.

4493 Doing Discourse Analysis [LING 4493]

3 credit hours

Prerequisite: At least twelve (12) credit hours in English or Linguistics (or permission of the instructor)

The focus is on learning how to do discourse analysis. We will focus on developing skills in the analysis of talk and text using models drawn from linguistics, structuralism and semiotics. The course will explicitly develop skills in analyzing discourse functions as configurations of interaction, experience and organization meaning.

4494 Approaches to Discourse Analysis [LING 4494]

3 credit hours

Prerequisite: At least twelve (12) credit hours in English or Linguistics (or permission of the instructor)

Linguistic, structural, post-structural, and semiotic perspectives on discourse analysis are addressed through reading and discussion of key works by authors of "landmark" texts such as R. Jakobsen, J. L. Austen, H. P. Grice, etc. The goals of the course are to (a) familiarize students with some of the "landmark" texts and perspectives on discourse analysis and (b) to develop abilities to develop abilities to relate analyses to cultural and situationally relevant contexts.

4511 Collective Memory and Visual Culture

3 credit hours

This advanced seminar examines how visual artifacts record, organize, and build narratives and cultures of collective memory (for example, that of nations, regions, and identities). The seminar will include field trips to local places of memory (memorials, museums, and archives), city walks of Halifax in the tradition of the Surrealists and Situationists, the study of home movies and documentary film, national television, and digital image memory archives such as blogs, YouTube, and Flickr.

4552 Honours Seminar

6 credit hours

Topics chosen will be of a general nature in order to permit the representation of a diversity of historical periods, genres, and the various literary traditions of the English-speaking world. Students will be required to present papers on aspects of the chosen topic and members of the Department of English Language and Literature will conduct seminars in their areas of expertise.

4555 – 4556 Honours Seminar

3 credit hours

Topics chosen will be of a general nature in order to permit the representation of a diversity of historical periods, genres, and the various literary traditions of the English-speaking world. Students will be required to present papers on aspects of the chosen topic and members of the Department of English Language and Literature will conduct seminars in their areas of expertise.

4800 – 4825 Special Author, Special Subject

6 credit hours

Prerequisite: enrolment in the English honours program or special recommendation of the Department.

These courses provide the opportunity to study a particular author in considerable depth and detail, and requires some measure of independence and initiative in the student.

Tutorials by arrangement with supervisor. 2 semesters

4826 -4849 Special Author, Special Subject

3 credit hours

These courses provide the opportunity to study a particular author, subject, or period in considerable depth and detail and will require some measure of independence and initiative in the student.

Entrepreneurship

A major in Entrepreneurship is offered within the Bachelor of Commerce and the Bachelor of Arts. The major is administered by the Department of Management. Arts students pursuing a major in Entrepreneurship are not eligible for a Minor in Business.

Note: Students are advised that possession of the minimum qualifications does not guarantee admission to a particular academic program. Limits to the number of students who can be in a particular program at any one time exist and depend very much on the number of faculty members available in a particular academic unit.

Bachelor of Commerce

Year 1

CISY 1225 Introduction to Computer Applications
 ECON 1201 Principles of Economics: Micro
 ECON 1202 Principles of Economics: Macro
 ENGL 1205 Introduction to Literature
 MGMT 1281 Introduction to Business Management
 MGSC 1205 Quantitative Methods I
 MGSC 1206 Quantitative Methods II
 Nine (9) non-Commerce elective credit hours

Year 2

ACCT 2241 Introductory Financial Accounting
 ACCT 2242 Introductory Managerial Accounting
 CMLW 2201 Legal Aspects of Business - Part I
 COMM 2293 Communications
 MGSC 2207 Introductory Statistics
 MGMT 2383 Micro Organizational Behaviour
 MGMT 2384 Macro Organizational Behaviour
 MKTG 2270 Introduction to Marketing
 Three (3) credit hours in Economics electives (except ECON 4475)
 Three (3) credit hours in non-Commerce electives

Students must have a CGPA of at least 2.0 and have completed a minimum of 45 credit hours to be permitted to declare a major in Entrepreneurship.

Year 3

*ACCT 3332 Planning and Control – see Note (i)
 FINA 2360 Business Finance I
 FINA 3361 Business Finance II
 *MGMT 3380 Family Business
 *MGMT 3389 Structuring the Start-Up
 MGMT 3480 Ethical Responsibilities of Organizations
 Six (6) credit hours in non-Commerce electives
 Six (6) credit hours in free electives

Year 4

*MGMT 4487 New Venture Opportunities
 MGMT 4489 Strategic Management
 *MGMT 4494 Entrepreneurship: Theory and Concepts
 *MGMT 4495 Small Business Performance Improvement
 Six (6) credit hours in non-Commerce electives
 Twelve (12) credit hours in free electives

Note: (i) Students cannot receive credit for both ACCT 3332 and ACCT 3333 or ACCT 3335.

In addition to all other requirements for the major, a minimum GPA of 2.2 out of 4.3 is required in ACCT 3332, MGMT 2383, MGMT 2384, MGMT 3380, MGMT 3389, MGMT 4487, MGMT 4494, and MGMT 4495 (as indicated above by *).

Bachelor of Arts

Year 1

ECON 1201 Principles of Economics: Micro
 ECON 1202 Principles of Economics: Macro
 MGSC 1205 Quantitative Methods I
 MGMT 1281 Introduction to Business Management
 CISY 1225 Introduction to Computers
 ENGL 1205 Introduction to Literature
 Nine (9) credit hours in Humanities (BA requirement 3c)
 Three (3) credit hours in Social Sciences (BA requirement 3d)

Year 2

MGMT 2383 * Micro Organizational Behavior
 MGMT 2384 * Macro Organizational Behavior
 MKTG 2270 Introduction to Marketing
 COMM 2293 Communications
 ACCT 2241 Introductory Financial Accounting
 ACCT 2242 Introductory Managerial Accounting
 Three (3) credit hours in Social Sciences (BA requirement 3d)
 Nine (9) credit hours in Arts at the 2000 level or above

Year 3

MGMT 3380 * Family Business (Entrepreneurship Stream)
 MGMT 3389 * Structuring the Start-up (Entrepreneurship)
 ACCT 3332 * Planning and Control
 Twenty-one (21) credit hours in Arts at the 2000 level or above

Year 4

MGMT 4487 * New Venture Opportunities
 MGMT 4494 * Entrepreneurship: Theories & Concepts
 MGMT 4495 * Small Business Performance Improvement
 Twenty-one (21) credit hours in Arts at the 2000 level or above

Students must have a CGPA of at least 2.0 and have completed a minimum of 45 credit hours to be permitted to declare a major in Entrepreneurship.

In addition to all other requirements for the major, a minimum GPA of 2.2 out of 4.3 is required in ACCT 3332, MGMT 2383, MGMT 2384, MGMT 3380, MGMT 3389, MGMT 4487, MGMT 4494, and MGMT 4495 (as indicated above by *).

Environmental Science (ENVS)

Chairperson	J. Clyburne, Chemistry/ Environmental Science
Professors	L. Campbell, Environmental Science, T. Charles, Management Science/ Environmental Science, J. Clyburne, Chemistry and Environmental Science, J. Lundholm, Biology/ Environmental Science
Associate Professors	C. Suteanu, Geography and Environmental Science
Assistant Professor	A. Wiacek, Environmental Science/Astronomy and Physics
Adjunct Professors	T. Bowron, K. Harper, K. Keys, S. Salas Bravo, P. White

Department website: www.smu.ca/envs

The Department of Environmental Science offers a rigorous interdisciplinary program based on core sciences and includes courses in management, social sciences and the humanities. This program can lead to a Bachelor of Science degree with a major, honours or minor in Environmental Science under the Faculty of Science.

Students may pursue a double major in Environmental Science and another science subject, as outlined in Section 7 of the Faculty of Science pages in this *Calendar*. Students may also pursue a double honours in Environmental Science and another science subject, as outlined in Section 12d of the Faculty of Science pages in this *Calendar*.

Students may combine a minor in Environmental Science with a major in another discipline as part of a Bachelor of Science, Arts or Commerce degree.

For details on the Bachelor of Environmental Studies (BES) degree requirements in the Faculty of Arts, please refer to the BES section in this *Academic Calendar*.

The Environmental Science program provides students with the necessary academic preparation to understand environmental and resource-oriented issues and to develop creative and effective solutions to environmental issues and challenges.

Bachelor of Science in Environmental Science

Students have the options to declare a major, double major, dual degree, honours, double honours, minor and/or co-op. Students may pursue a cooperative education option. See the Cooperatives Education Office for details.

Graduates of the honours program may be qualified for admission to graduate programs in Environmental Science or related subjects, see the *Graduate Academic Calendar* for details.

Major in Environmental Science - Requirements

Environmental Science is an interdisciplinary program, based on core courses in environmental science and including courses from departments in the Faculty of Science, as well as those in Arts and Commerce. The following requirements for the degree of Bachelor of Science with Major in Environmental Science including those requirements listed in the Faculty of Science pages in this *Academic Calendar*.

- Sixty-nine (69) credit hours in the Major subject area courses. Students must achieve a minimum grade point average (GPA) of 2.20 in this group of courses used to satisfy 6 (d), the Major subject requirement:
 - ENVS 1200 Environmental Challenges
 - ENVS 1250 Physical Processes in the Environment
This requirement can also be satisfied by taking either PHYS 1000 and PHYS 1001, or PHYS 1210 and PHYS 1211.
 - ENVS 2300 Populations and Ecosystems
 - ENVS 2310 Energy, Resources and Pollution
 - GEOG 3326 Statistical Methods in Geography or BIOL 3308 Biostatistics or MATH 1216 Introduction to Mathematical Statistics
 - ENVS 4499 Environmental Seminar
 - Twelve (12) credit hours in Group A courses
 - Twelve (12) credit hours in Group B courses
 - Twelve (12) credit hours in Group C courses*, including at least three (3) credits of Field Course ENVS 3310 - 3315
 - An additional twelve (12) credit hours in Group C courses* at the 4000-level
- Eighteen (18) credit hours in non-ENVS science courses
 - CHEM 1210 General Chemistry I
 - CHEM 1212 General Chemistry II for Life Sciences, or CHEM 1211 General Chemistry II for Physical Sciences
 - BIOL 1201 Molecular and Cell Biology
 - BIOL 1202 Organismal and Ecological Biology
 - GEOL 1200 Understanding the Earth
 - GEOL 1201 Dynamic Earth
- Six (6) credit hours in MATH and /or CSCI at the 1210 level or above.
- Twelve (12) credit hours in Arts and/or Economics:
 - GEOG 1200 People, Place and Environment
 - One of: GEOG 2313 Geomorphology, or GEOG 2333 Biogeography, or GEOG 2343 Weather and Climate
 - ECON 1201 Principles of Economics: Micro
 - ECON 3362 Natural Resource Economics or ECON 3363 Environmental Economics
- Three (3) credit hours in English:
 - ENGL 1205 Introduction to Literature
- Three (3) credit hours in Humanities
- Nine (9) credit hours of electives

***NOTE:**

Students may count up to a maximum of nine (9) credit hours in Field Courses toward their Group C requirements for a major or honours B.Sc. in Environmental Science.

Students should consult the Faculty of Science Program Requirement Tables available online for the complete list of program requirements, recommended Science Electives, and a suggested sequence of courses for years 1 and 2. Students should consult with a Program Advisor or a Science Advisor to chart their courses, and to determine the best sequence of courses for years 3 and 4.

Group A – Courses**Environment Science Courses:**

ENVS 1200	Environmental Challenges
ENVS 1250	Physical Processes in the Environment
ENVS 2100	Green Chemistry
ENVS 2300	Environmental Science: Populations & Ecosystems
ENVS 2310	Environmental Science: Energy, Resources & Pollution
ENVS 2410	Energy and the Environment
ENVS 3340	Principles of Hydrogeology
ENVS 3410	Environmental Impact Assessment
ENVS 3420	Environmental Monitoring and Auditing
ENVS 3430	Environmental Information Management
ENVS 3440	The Environment and Human Health
ENVS 3450	Aquatic Environments
ENVS 3630	Climate Change
ENVS 4440	Environmental Policy
ENVS 4450	Natural Resource Management
ENVS 4460	Environmental Pattern Analysis and Modeling
ENVS 4470	Environmental Remediation and Restoration
ENVS 4480	Environmental Contaminants

Group B - Courses**Environment Related Courses in Economics, Social Sciences, and Humanities:**

ANTH 4306	Foraging Adaptation
ECON 3362	Natural Resource Economics
ECON 3363	Environmental Economics
ENGL 2318	The Writer and Nature
ENVS 3410	Environmental Impact Assessment
ENVS 3430	Environmental Information Management
ENVS 3440	The Environment and Human Health
ENVS 4440	Environmental Policy
ENVS 4450	Natural Resource Management
GEOG 1100	Global Perspectives on Land & Life
GEOG 2315	The Oceans
GEOG 3304	Environmental Management
GEOG 3329	Geographic Perspectives on Nature
GEOG 3454	Bay of Fundy: Environment and Issues
GEOG 4434	Watershed Management
HIST 2201	Environmental History of Europe, 1300-1900
IDST 4470	Environment and Development
MGMT 3480	Ethical Responsibilities of Organizations
PHIL 2305	Environmental Ethics
POLI 2304	Canadian Politics in the 21 st Century

POLI 2305	International Relations
POLI 2307	Provincial Government and Politics
POLI 3321	International Organization
POLI 3322	Global Political Economy
POLI 4493	Global Social Movements
PSYC 4418	Environmental Psychology
RELS 2347	Ecology and Religion
RELS 3348	Religion and Ecological Issues in the Developing World [IDST 3348]
SOCI 3391	Rural Sociology

Background/Techniques Courses:

COMM 2293	Communication
COMM 3394	Oral Communication and Presentation Techniques
ECON 1202	Principles of Economics: Macro
ECON 3364	Cost Benefit Analysis
GSCI 1300	Introduction to Science Communication
GSCI 3300	Advanced Science Communication
MGMT 3392	Occupational Health & Safety
PHIL 2302	Ethics
PHIL 2318	Science and Society
PHIL 3448	Philosophy of Science
PSYC 1250	Social Behaviour
PSYC 3309	Human Factors and Performance
PSYC 4497	Community Psychology
RELS 3349	Science & Religion
SOCI 3387	Women & Development [WMST 3387]

Any language courses, up to six (6) credit hours.

Group C - Courses

Environment Related Courses in the Natural Sciences	
BIOL 2324	Ecology
BIOL 2303	Plant Biology
BIOL 2304	Animal Biology
BIOL 3002	Entomology
BIOL3332	Ecosystems
BIOL 3398	Microbiology
BIOL 3421	Plants and People
BIOL 4003	Molecular Ecology
BIOL 4404	Behavioural Ecology
BIOL 4410	Plant Ecology
BIOL 4422	Conservation Biology
BIOL 4424	Diversity & Ecology of Fishes
BIOL 4430	Ornithology
BIOL 4431	Herpetology
BIOL 4433	Ecotoxicology
BIOL 4448	Biology Field Course
BIOL 4451	Ecology in the Tropics
CHEM 2332	Introductory Analytical Chemistry: Wet Methods
CHEM 2333	Introductory Analytical Chemistry: Instrumental Methods
CHEM 2344	Organic Chemistry I
CHEM 2345	Organic Chemistry II (note that CHEM 2344 and CHEM 2345 are recommended for CHEM/ENVS double majors)
CHEM 2346	Organic Chemistry for Life Sciences
CHEM 3473	Environmental Chemistry
CHEM 3451	Introductory Biochemistry
CHEM 4452	Biochemistry: Intermediary Metabolism
ENVS 2100	Green Chemistry [CHEM 2100]
ENVS 3310-3315	Field Course in Environmental Science
ENVS 3340	Principles of Hydrogeology

ENVS 3410	Environmental Impact Assessment
ENVS 3420	Environmental Monitoring and Auditing
ENVS 3430	Environmental Information Management
ENVS 3630	Climate Change
ENVS 3876-99	Directed Study in Environmental Science
ENVS 4430	Directed Research
ENVS 4450	Natural Resource Management
ENVS 4460	Environmental Pattern Analysis and Modeling
ENVS 4470	Environmental Remediation and Restoration
ENVS 4480	Environmental Contaminants
ENVS 4876-99	Directed Study in Environmental Science
GEOG 2313	Geomorphology
GEOG 2333	Biogeography
GEOG 2343	Weather and Climate
GEOG 3356	Remote Sensing of the Environment
GEOG 3386	Concepts of Geographical Information Systems Analysis
GEOG 4413	Coastal Geomorphology [GEOL 4476]
GEOG 4423	Glaciers and Glaciation [GEOL 4475]
GEOG 4443	Natural Hazards
GEOG 4496	Applications in Geomatics
GEOL 1206	Global Change
GEOL 2301	Mineralogy
GEOL 2325	Sedimentology [GEOG 2325]
GEOL 3340	Principles of Hydrogeology
GEOL 3453	Principles of Geochemistry
GEOL 3454	Applied Geochemistry
PHYS 1000	Physics for Life Sciences I (credit is not offered for PHYS 1000 and PHYS 1001 if given for ENVS 1250)
PHYS 1001	Physics for Life Sciences II (credit is not offered for PHYS 1000 and PHYS 1001 if given for ENVS 1250)
PHYS 1210	University Physics I
PHYS 1211	University Physics II

Honours or Double Honours in Environmental Science – Requirements:

The following requirements for the degree of Bachelor of Science with Honours (or double honours with other subject) include those requirements listed in the Faculty of Science pages in this *Calendar*.

- Fulfilment of the requirements for a major in Environmental Science, as outlined above;
- Completion of ENVS 4599 Honours Research project, which counts as six (6) credit hours towards the required twelve (12) credit hours in Group C courses at the 4000-level; Students must secure a supervisor for their Honours Research project (ENVS 4599) before applying to the Honours Program.
- Completion of at least one (1) Field Course, ENVS 3310-3315, which counts towards the required twelve (12) credit-hours in Group C courses,
- A minimum DGPA of 3.00.

Minor in Environmental Science - Requirements

Students may combine a minor in Environmental Science with a major in another discipline as part of a Bachelor of Science, Arts or Commerce degree.

The specific Thirty (30) credit hours required to satisfy 9 (b) for a minor in Environmental Science are listed below, for which a minimum GPA of 2.20 is also required:

- Eighteen (18) credit hours required:
 - ENVS 1200 Environmental Challenges
 - ENVS 1250 Physical Processes in the Environment
 - ENVS 2300 Environmental Science: Populations and Ecosystems
 - ENVS 2310 Environmental Science: Energy, Resources and Pollution
 - BIOL 1201 Molecular and Cell Biology OR BIOL 1202 Organismal and Ecological Biology
 - CHEM 1210 General Chemistry I
- Nine (9) credit hours from: Group B or Group C ENVS Courses
- Three (3) credit hour from: ENVS courses not already counted in meeting the above requirements. *Note: ENVS 4499 (6 credit hours) can be taken with permission of the Department.*

NOTE:

For details on the Bachelor of Environmental Studies (BES) degree requirements in the Faculty of Arts, please refer to the BES section of this Calendar

Course Descriptions

1200 Environmental Challenges

3 credit hours

This course is an interdisciplinary introduction to environmental science. Students consider scientific methods, the scale and magnitude of environmental variables, societal pathways and impediments to solving environmental problems, and critical thinking about environmental issues. Topics include: hypothesis testing, social and scientific causation, linear and non-linear processes, temporal and spatial scales, feedback cycles, biodegradation and accumulation, and the social and organizational context of environmental activities.

Classes 3 hrs and lab 3 hrs per week.

1250 Physical Processes in the Environment

3 credit hours

Prerequisite: Nova Scotia Grade 12 Mathematics or equivalent

Students in this algebra-based course are introduced to fundamental concepts regarding physical processes studied in environmental sciences. An understanding of kinematics, linear dynamics, work, power, energy and momentum conservation is developed. Elementary concepts related to fluids, waves and radioactivity are introduced and applied to environmental problems. Dimensional and order-of-magnitude analysis is emphasized.

Classes 3 hrs and lab 3 hrs per week.

Note: Credit for ENVS 1250 will not be given after PHYS 1210 or PHYS 1211.

2100 Green Chemistry [CHEM 2100]

3 credit hours

Prerequisite: CHEM 1211, CHEM 1212, or CHEM 1213

Green chemistry, or environmentally benign chemistry, is the design of chemical products and processes that reduce or eliminate the use and generation of hazardous substances. Students examine the chemical principles and processes in the development of technology and in the effects that this technology has on the environment. Traditional approaches are avoided that only consider the treatment of pollution after it is created, and will focus on alternative routes that limit the production of waste.

Classes 3 hrs per week

2200 Introduction to Environmental Science*

3 credit hours

Prerequisites: ENVS 1200 and 3 credit hours in BIOL

Students examine human impacts on the environment and ecosystems, locally and internationally, through the medium of case studies, discussions, readings, critical analysis assignments, and practical lab applications. Students will practice biological and environmental sampling techniques, complete a research project, and participate in field trips.

Classes 3 hrs and lab 3 hrs per week

***Note:** For non-science majors, including B.E.S.**2300 Environmental Science: Populations & Ecosystems**

3 credit hours

Prerequisite: ENVS 1200; and 3 credit hours in BIOL

This course provides a scientific introduction to environmental problems and their solutions. The emphasis is on biological and ecological processes and their importance to global sustainability. Labs include hands on experience sampling local environments, participation on real research projects, and field trips to local environmental industry facilities.

Classes 3 hrs. and lab 3 hrs per week.

2310 Environmental Science: Energy, Resources and Pollution

3 credit hours

Prerequisites: ENVS 1200, ENVS 1250 and CHEM 1210

This course provides a scientific introduction to environmental problems and their solutions, with emphasis on sustainability regarding energy and mineral resources, air, and water. Topics include evolving patterns of resource identification, exploration, and consumption, waste management, environmental pollution, climate change, and their implications for the dynamics of human environment relations from the local to the global scale. Labs offer a hands-on approach to concrete environmental problems, including the practical evaluation of patterns of environmental change based on real data.

Classes 3 hrs. and lab 3 hrs

ENVS 2410 Energy and the Environment

3 credit hours

Prerequisites: ENVS 1200, ENVS 1250; and one of: CHEM 1211, CHEM 1212 or CHEM 1213

Students explore the history of energy use and the associated scientific and philosophic problems from ancient times to 21st-century. The current carbon-based economy, and alternative energy sources such as geothermal, wind, and solar energy are examined. Students are introduced to energy use including thermodynamics, combustion reactions, electrochemistry, and photovoltaics.

3310-3315 Field Course in Environmental Science

3 credit hours

Prerequisite: 45 credit hours in Science, including ENVS 2300 or ENVS 2310

Field courses are unique learning opportunities designed to bring theory to life in a natural setting. Normally double lectures held every second week during the regular semester are coupled with an intensive field component in spring or summer. Topics can vary with season and instructor expertise.

Classes 3 hrs per week, plus intensive field lab

Notes:

- i) Multiple versions of this course taught on different topics may be offered within the same calendar year.
- ii) Students may count up to a maximum of nine (9) Field Courses toward their Group C requirements for a major or honours BSc in Environmental Science

3340 Principles of Hydrogeology [GEOL 3340]

3 credit hours

Prerequisites: GEOL 1200 and GEOL 1201.

Students are introduced to the essential concepts of groundwater flow and wells. Topics include: flow through varying geologic material, water resources management, baseline groundwater quality, contamination of sub-surface environments, and an introduction to quantitative methods. Students will learn to recognize and interpret groundwater flow and chemical data, and have an opportunity to apply this knowledge via course work, laboratory exercises and field work.

Classes 3 hrs. and lab 3 hrs. per week. Labs may involve field work.

3410 Environmental Impact Assessment [GEOL 3410]

3 credit hours

Prerequisite: 45 credit hours, including one of ENVS 1203, ENVS 2200, ENVS 2300 or ENVS 2310.

This course describes the legislative background and techniques for the prediction of impacts on biophysical and socio-economic environments. This course will cover screening, scoping, baseline studies, impact prediction, mitigation, monitoring and auditing.

Classes 3 hrs. and lab 3 hrs per week.

3420 Environmental Monitoring and Auditing

3 credit hours

Prerequisite: 45 credit hours, including one of ENVS 2200, ENVS 2300 or ENVS 2310

This course describes the principles and applications of environmental auditing and monitoring. Techniques for environmental audit of facilities, organizations and projects will be covered, together with the design of monitoring programs and techniques for atmospheric, biological, hydrological, and socio-economic monitoring.

Classes 3 hrs. and lab 3 hrs. per week.

3430 Environmental Information Management

3 credit hours

Prerequisites: 45 credit hours, including one of ENVS 2200, ENVS 2300 or ENVS 2310

Students develop information management skills required for an effective approach to environmental challenges in a complex and fast-changing context, involving a wide range of stakeholders. Concepts, methods, and practical training are provided in an interdisciplinary active learning environment that focuses on real-world applications regarding information identification, interpretations, and context-adapted.

Classes 3 hrs. and lab 3 hrs per week

3440 The Environment and Human Health

3 credit hours

Prerequisites: 45 credit hours; and one of: BIOL 1202, ENVS 2200, or ENVS 2300.

A range of natural and anthropogenic agents that result in human health problems in industrialized and developing countries are examined. Students explore the scientific causes, the potential health effects and any known synergistic effects of these agents, through case studies, readings, and discussion. Existing policies are evaluated. Students research, critique, and present at least three comprehensive case studies.

Classes 3 hrs. per week.

3450 Aquatic Environments

3 credit hours

Prerequisites: ENVS 2300, ENVS 2310, BIOL 1202; and one of: CHEM 1211, CHEM 1212 or CHEM 1213

Aquatic resources are essential to all living things on Earth. Students examine the similarities and differences in ecology, chemistry and physics of diverse aquatic ecosystems from marine to freshwater. Wetlands, lakes, rivers, estuaries, tidal systems and oceans are all considered. There are field trips to representative habitats.

Classes 3 hrs and lab 3 hrs per week.

3473 Environmental Chemistry [CHEM 3473]

3 credit hours

Prerequisite: CHEM 2332 or permission of instructor.

Students examine sources, movements and ultimate destinations of chemicals in air, water and soil. Topics include: principles of green chemistry; reactions of the ozone layer; chemistry of ground-level air pollution; greenhouse effect; fossil fuel energy; global warming; alternative energy sources; polycyclic organic compounds; and the chemistry of natural waters including pollution and disinfection. **Note:** There is no laboratory component for this course.

3630 Climate Change: Evidence and Uncertainty

3 credit hours

Prerequisites: ENVS 2300 and ENVS 2310

Students review scientific evidence for climate change, and its natural and anthropogenic attributions. The mechanisms of climate change are emphasized and students analyze and evaluate proposed climate change mitigation strategies. Other topics include major impacts, feedback effects, modeling and prediction, the international assessment process, and “skepticism”.

Classes 3 hrs and lab 3 hrs per week.

3826 – 3849 Special Topics in Environmental Science

3 credit hours

Prerequisite: 45 credit hours and permission of the instructor

3876 – 3899 Directed Study in Environmental Science

3 credit hours

Prerequisite: 45 credit hours and permission of the instructor

4430 Directed Research

3 credit hours

Prerequisite: 60 credit hours, including one of: ENVS 2300 or ENVS 2310, and permission of the Environmental Science Chairperson.

Students pursue a short term research project in such areas as: oceanographic sampling and analysis, policy development or environmental impact assessment. Students must identify an appropriate supervisor; provide a project proposal; and at the end of the project, submit a written report.

Lab 6 hrs. per week.

4440 Environmental Policy

3 credit hours

Prerequisite: Seventy-five (75) credit hours, including one of: ENVS 2200, ENVS 2300, ENVS 2310 or GEOG 3304.

This course focuses on environmental and natural resource policy in Canada and the world. Attention is paid to all scales at which policy is developed – local, provincial, national and international. The process of policy making is examined, including aspects of legislation and regulations, participatory and stakeholder approaches, and conflict resolution. Interactions between policy, management measures and compliance are explored, including the role of standards and environmental management systems, and the circumstances under which organizations and businesses comply with regulations concerning environmental impacts and natural resource use.

Classes 3 hrs. per week.

4450 Natural Resource Management [GEOG 4424]

3 credit hours

Prerequisite: 60 credit hours, including one of: ENVS 2200, ENVS 2300, ENVS 2310, or GEOG 3304

This interdisciplinary course is an examination of the management of natural resource industries such as fisheries, forestry, mining and energy, focusing on interactions between biophysical, ecological, socioeconomic, and technological components. Topics include: sustainable development and environment-economy interactions in the resource sector; approaches to integrated natural resource development; theoretical and practical aspects of managing resources and resource industries; economics of sustainable resource use; methods for analysing the impacts of resource use.

Classes 3 hrs. and lab 3hrs. per week.

4460 Environmental Pattern Analysis and Modeling [GEOG 4444]

3 credit hours

Prerequisites: Sixty (60 credit hours, including one of ENVS 3430, or GEOG 3004

Students focus on theory and practical methods for characterizing and modeling the structural and dynamic features relating to environmental systems. Practical applications include models and environmental systems related to rivers, lakes, coastal areas, fisheries, forests, ecosystems, underground mineral distribution, atmospheric variables (wind, temperature), and pollution.

Classes 3 hrs. and lab 3 hrs. per week.

4470 Environmental Remediation and Restoration

3 credit hours

Prerequisites: 45 credit hours and one of: ENVS 2200, ENVS 2300, or ENVS 2310.

Current approaches to remediating damaged ecosystems, including such topics as mine reclamation, invasive species control, ecological restoration and constructed ecosystems are examined. Emphasis is placed on the scientific and socioeconomic bases for remediation and restoration, including the following: theoretical approaches; the role of traditional ecological knowledge; gaps between theory and practice; and hands-on training in local ecological restoration projects.

Classes 3 hrs and lab 3 hrs per week.

4480 Environmental Contaminants

3 credit hours

Prerequisites: 60 credit hours. including: ENVS 2300, ENVS 2310, BIOL 1202, and CHEM 1211 or CHEM 1212,

The focus of this course is on key environmental contaminants, including mercury, other metals, and selected volatile organic compounds. Emphasis is placed on experiential approaches, including field work and laboratory research, to study these environmental contaminants,

Students are expected to participate in the critical analyses of literature, and in the discussion and presentation of their own research results.

Classes 3 hrs. and lab 3 hrs. per week

4499 Environmental Seminar

6 credit hours

Prerequisite: Seventy-five (75) credit hours. including ENVS 2200, ENVS 2300 or ENVS 2310. Restricted to students registered in Environmental Science (minor, major, or honours) and to students registered in the Bachelor of Environmental Studies, or with permission of the Environmental Science Chairperson.

The course deals with selected topics in environmental science. Specific topics vary depending on current issues, new developments, availability of speakers and the interests of students and instructor.

Seminar 3 hrs. per week.

4599 Honours Research Project

6 credit hours

Prerequisite: Honours standing in Environmental Science.

Honours students work with a research advisor who will guide the students in the formulation of research proposals, the methodology to be followed during the course of the research, and in the analysis and write-up of the research findings. The thesis is presented orally.

Lab 6 hrs. (minimum) per week.

4826 – 4849 Special Topics in Environmental Science

3 credit hours

Prerequisite: 60 credit hours and permission of the instructor.

4876 - 4899 Directed Studies in Environmental Science

3 credit hours

Prerequisite: restricted to students in the honours program or permission of the Environmental Science Chairperson.

The course provides an opportunity for ENVS honours students to study a particular subject in detail. It requires independence and initiative from the student. It involves discussion of research papers and lab work. This course is intended particularly to meet the special needs and interests of honours students. Major students may be admitted with permission of the Environmental Science Program Coordinator.

Classes and labs 6 hrs. per week

Bachelor of Environmental Studies (BES)

Program Coordinator C. Conrad
 Professors: C. Conrad, D. Gauthier, D. van Proosdij
 Associate Professors: P. Giles, C. Suteanu
 Assistant Professors: J. Grek Martin, M.J. Kwak, M. Novak
 Professors Emeritus: R. McCalla, H. Millward
 website: www.smu.ca/academics/environmental-studies.html

Program Mission

The Bachelor of Environmental Studies is a multidisciplinary degree program offered by the Faculty of Arts. It is designed to prepare students for work related to environmental issues – from natural resource management and protection, to sustainable economic planning and development for the protection and preservation of the environment. The program includes geographical, cultural, sociopolitical, economic and ecological orientations to the environment. Studies in these fields provide a strong foundational understanding of natural processes and systems that make up the environment. Students can focus their environmental interests through exposure to a broad spectrum of knowledge about the human experience and the natural world, and practice in identifying, analyzing and mitigating environmental problems from a human perspective.

Degree Requirements

The program is a 4-year (120-credit-hour) B.E.S. It is comprised of 21 credit hours of required core foundation courses from the Faculties of Arts, Commerce and Science; 24 credit hours of core courses beyond the required foundation courses; 30 credit hours from thematic area choices; 12 credit hours from specified elective courses in both introductory and advanced-level natural sciences, environmental sciences, social sciences, and the humanities; and 33 credit hours of free electives. At the 4000-level, the two required core *capstone* courses take an integrative and applied orientation to environmental policy and practice. To graduate, students must achieve a minimum requirement of a DGPA of at least 2.00.

Program Structure

In selecting their courses, B.E.S. Students are advised to follow the yearly program structure outlines below as much as possible. Students should also be aware of course prerequisites when choosing their courses. In the event that a stated prerequisite has not been earned, students must obtain instructor's permission in order to enroll.

A Minor in Geography is available for B.E.S. Students as outlined in Section 4 of this Calendar. Students need to consult with the B.E.S. Coordinator or a BA Advisor early in their program in order to take the required prerequisite courses for this minor.

Note: when choosing approved B.E.S. electives to meet the degree requirements specified below, students are not permitted to take more than two 1000-level courses from any one subject area (ENVS, GEOG, POLI, etc.).

Cooperative Education Program (Co-op)

A B.E.S. degree with Cooperative Education (Co-op) is designed to provide interested and qualified students with an opportunity to integrate academic studies with active work experience in an approved job placement. The B.E.S. Co-op option is supplementary to the B.E.S. and Honours B.E.S. degree requirements, alternating periods of full time academic study with three months or more of practical experience in the working world. The Cooperative Education program will make every effort to provide students with up to three (3) paid work placements relevant to their undergraduate degree and/or future careers but cannot guarantee placements. Work terms start in September, January, or May, and have a minimum duration of 13 weeks, with at least 32.5 work hours per week.

1. Enrolment in the co-op option is limited and admission is evaluated on a competitive basis. The requirements listed below are the normal minimums. Satisfying these requirements does not guarantee admission.
2. Students are considered for admission after the completion of forty-five (45) credit hours. Normally, this will occur at the end of the first semester of the second year.
3. The normal admission requirement is a minimum cumulative grade point average of 2.70 (B-). For Honours students the admission requirement is a minimum grade point average of 3.00 (B).
4. Candidates will be admitted on the basis of their interest, aptitude, and assessed ability to successfully combine the academic requirements of a B.E.S. or a B.E.S. Honours program with the special work-term requirements of the Co-op option. The feasibility of the three proposed work-term placements will also be assessed.

Honours Program

The overarching Honours regulations for the Faculty of Arts will apply to students wishing to enter, continue and graduate with an Honours Bachelor of Environmental Studies degree. The Honours option requires B.E.S. students to achieve a higher standard of academic performance and to complete a thesis, encompassing research related to environmental studies.

1. In consultation with the B.E.S. Program Coordinator, students should formally declare their interest in taking an Honours degree after completing sixty (60) credit hours in the B.E.S. program.
2. The prerequisite for admission into Honours is a minimum cumulative grade point average of 3.00, with no grades below C (2.00).
3. To graduate with an Honours degree, students must achieve a minimum degree grade point average of 3.00.
4. In addition, Honours students must also complete BEST 4599.0 - Honours Thesis as part of their 120 credit hour degree program. This would normally be completed in the final year of the program and would replace six (6) of the required credit hours in approved B.E.S. electives. Before students may register for BEST 4599.0 they must get the approval of a faculty member teaching within the B.E.S.

degree program, who agrees to act as the student's thesis advisor.

Year 1 Foundation (30 credit hours):

Twenty-one (21) credit hours in core social and life sciences courses:

- ENV5 1200 Environmental Challenges
- GEOG 1100 Global Perspectives on Land and Life
- GEOG 1200 People, Place and Environment
- ECON 1201 Introduction to Economics: Micro
- POLI 1201 Politics: Contemporary Issues
- Six credit hours in electives chosen from Biology, Chemistry, Environmental Science, Geology, Mathematics, Physics and Astronomy and/or Computing Science

Three (3) credit-hours in communications:

- EDUC 1000 Introduction to University Education

Six (6) credit hours in humanities courses chosen from:

- CLAS 1001 Ancient Civilizations of the Near East and Egypt
- CLAS 1002 The Ancient Civilizations of Greece and Rome
- ENGL 1205 Introduction to Literature
- HIST 1201 Civilization in the West
- HIST 1203 The Twentieth Century in Europe
- HIST 1208 Global History: 1450 to the Present
- PHIL 1200 Critical Thinking
- RELS 1211 Introduction to Religious Experience

Year 2 (30 credit hours)

Fifteen credit hours in core environmental courses:

- One of: GEOG 2313 Geomorphology [GEOL 2373], GEOG 2315 The Oceans, GEOG 2343 Weather and Climate
- One of: GEOG 2312 Urban Geography, GEOG 2341 Economic Geography, GEOG 2349 Cultural Geography
- ENV5 2200 Introduction to Environmental Science
- PHIL 2305 Environmental Ethics
- Three (3) credit hours in approved BES electives at the 2000-level or above.

Six (6) credit-hours course in community development courses chosen from:

- ANTH 1202 Introduction to Socio-Cultural Anthropology
- IDST 2301 Introduction to International Development Studies: Perspectives
- PSYC 1250 Social Behaviour
- SOCI 1210 Introduction to Sociology
- SJCS 1211 Social Power Relations

Three (3) credit-hours in courses in environmental thought chosen from:

- ENGL 2318 The Writer and Nature
- ENGL 3518 Canadian Nature Writing
- HIST 2201 Environmental History of Europe, 1300-1900
- RELS 2347 Ecology and Religion
- PHIL 2331 Business Ethics

Three (3) credit-hours in public policy courses:

- POLI 3245 Public Policy I

Three (3) credit hours in biogeography:

- GEOG 2333 Biogeography

Year 3 (30 credit hours):

Three (3) credit-hours in environmental management:

- GEOG 3304 Environmental Management

Three (3) credit-hours in environmental sciences courses chosen from:

- ENV5 3410 Environmental Impact Assessment
- ENV5 3420 Environmental Monitoring and Auditing
- ENV5 3430 Environmental Information Management
- ENV5 3440 Environment and Health

Three (3) credit-hours in economic development courses chosen from:

- ECON 3362 Natural Resource Economics
- ECON 3363 Environmental Economics

Three (3) credit-hours in research methods courses from:

- MATH 1216 Introduction to Mathematical Statistics
- PSYC 2350 Psychological Statistics
- GEOG 3326 Statistical Methods in Geography
- GEOG 3416 Qualitative Research Methods in Geography
- SOCI 3100 Qualitative Research Methods
- SOCI 3102 Quantitative Research Methods

Six (6) credit-hours in courses in environmental thought and communications chosen from:

- IDST 4470 Environment and Development
- MGMT 3480 Ethical Responsibilities of Organizations
- PHIL 3200 Environmental Aesthetics
- GEOG 3329 Geographic Perspectives on Nature
- GEOG 2356 Inquiry and Explanation in Geography

Nine (9) credit-hours in approved B.E.S. electives at the 2000 level or above (see list below):

- Three (3) credit-hours in an approved B.E.S. elective at the 2000 level or above from BIOL, CHEM or GEOL
- Three (3) credit-hours in an approved B.E.S. elective at the 2000 level or above from CLAS, ENGL, HIST, PHIL or RELS (see below)
- Three (3) additional credit-hours in an approved B.E.S. elective at the 2000 level or above

Three (3) credit-hours of free electives

Year 4 (30 credit hours):

Nine (9) credit hours in core capstone courses:

- ENV5 4440 Environmental Policy
- ENV5 4499 Seminar in Environmental Science

Nine (9) credit-hours in approved B.E.S. electives at the 2000-level or higher

- Honours students are required to take BEST 4599.0 Honours Thesis (six credit hours) plus

three credit hours in approved B.E.S. electives at the 2000-level or higher.
Twelve (12) credit-hours of free electives

Course Descriptions

4599.0 Honours Thesis

6 credit hours
Prerequisite: Honours standing in B.E.S. degree and identification of a faculty member to act as a thesis advisor

The Honours thesis requires an independent research project to be completed under the supervision of a faculty advisor. The advisor will guide the student in the formulation of the research proposal, methodology to be followed, the collection and analysis of data, and in the writing of the thesis.

List of Approved B.E.S. Elective Courses

For course descriptions, please refer to the appropriate Department of Program section of this Academic Calendar.

- ANTH 1202 Introduction to Socio-Cultural Anthropology
- ANTH 3366 Worldview: Anthropological Approaches [RELS 3366]
- BIOL 1201 Molecular and Cell Biology
- BIOL 1202 Organismal and Ecological Biology
- BIOL 2303 Plant Biology
- BIOL 2304 Animal Biology
- BIOL 2324 Ecology
- BIOL 3308 Biostatistics
- BIOL 3332 Ecosystems
- BIOL 3328 Plant Identification and Taxonomy
- BIOL 4410 Plant Ecology
- BIOL 4422 Conservation Biology
- CHEM 1210 General Chemistry I
- CHEM 1211/12 General Chemistry II for Physical/Life Sciences
- CHEM 1221 Chemicals
- CHEM 2373 Environmental Chemistry
- CLAS 1001 Ancient Civilizations of the Near East and Egypt
- CLAS 1002 The Ancient Civilizations of Greece and Rome
- CLAS 3317 Greek Sanctuaries [RELS 3314]
- CLAS 3318 Classical Archaeology
- CLAS 3610 Field Study in Roman Archeology
- ECON 1201 Principles of Economics: Micro
- ECON 1202 Principles of Economics: Macro
- ECON 3362 Natural Resource Economics
- ECON 3363 Environmental Economics
- EDUC 1000 Introduction to University Education
- ENGL 1205 Introduction to Literature
- ENGL 2318 The Writer and Nature
- ENGL 3518 Canadian Nature Writing
- ENVS 1200 Environmental Challenges
- ENVS 1250 Physical Processes in the Environment
- ENVS 2100 Green Chemistry [CHEM 2100]
- ENVS 2200 Introduction to Environmental Science
- ENVS 3410 Environmental Impact Assessment [GEOL 3410]
- ENVS 3420 Environmental Monitoring and Auditing
- ENVS 3430 Environmental Information Management
- ENVS 3440 The Environment and Human Health

- ENVS 4440 Environmental Policy
- ENVS 4450 Natural Resource Management [GEOG 4424]
- ENVS 4460 Environmental Pattern Analysis and Modeling [GEOG 4444]
- ENVS 4470 Environmental Remediation and Restoration
- ENVS 4499 Environmental Seminar
- GEOG 1100 Global Perspectives on Land and Life
- GEOG 1200 People, Place and Environment
- GEOG 2306 Geospatial Concepts
- GEOG 2310 Geography of Canada
- GEOG 2312 Urban Geography
- GEOG 2313 Geomorphology [GEOL 2373]
- GEOG 2315 The Oceans
- GEOG 2325 Sedimentology [GEOL 2325]
- GEOG 2332 Global Cities
- GEOG 2333 Biogeography
- GEOG 2341 Economic Geography
- GEOG 2343 Weather and Climate
- GEOG 2349 Cultural Geography
- GEOG 2356 Inquiry and Explanation in Geography
- GEOG 2386 Introduction to Mapping and Geographical Information Systems
- GEOG 2390 Geography of Ireland [IRST 2391]
- GEOG 3004 Geography Practicum
- GEOG 3100 Geography Field School
- GEOG 3213 Applied Geomorphology
- GEOG 3302 The Built Environment
- GEOG 3304 Environmental Management
- GEOG 3311 Rural Geography
- GEOG 3320 Geography of the North
- GEOG 3321 Economic Globalization: Geography of Manufacturing
- GEOG 3326 Statistical Methods in Geography
- GEOG 3329 Geographic Perspectives on Nature
- GEOG 3340 Geography of Nova Scotia [ACST 3340]
- GEOG 3350 Geography of Sub-Saharan Africa
- GEOG 3351 Demography and Migration
- GEOG 3356 Remote Sensing of the Environment
- GEOG 3380 Climate Change: Impacts, Vulnerability and Adaptation
- GEOG 3386 Geographical Information Systems Analysis
- GEOG 3416 Qualitative Research Methods in Geography
- GEOG 3433 Fluvial Geomorphology
- GEOG 3454 Bay of Fundy: Environments and Issues
- GEOG 3553 Arctic and Alpine Landscapes
- GEOG 4406 Capstone Seminar in Geography
- GEOG 4412 Urban History and Preservation
- GEOG 4413 Coastal Geomorphology [GEOL 4476]
- GEOG 4423 Glaciers and Glaciation [GEOL 4475]
- GEOG 4431 Community and Regional Development
- GEOG 4432 Social Geography of the City
- GEOG 4434 Watershed Management
- GEOG 4442 Urban Planning
- GEOG 4443 Natural Hazards
- GEOG 4449 Tourist Geographies
- GEOG 4459 The Power of Maps: A Social History of Cartography
- GEOG 4465 Advanced Sedimentology [GEOL 4465]
- GEOG 4496 Applications in Geomatics
- GEOL 1202 Planet Earth: Atlantic Canada Perspective
- GEOL 1203 Earth History: Atlantic Canada Perspective
- GEOL 1206 Global Change
- GEOL 1207 Environment, Radiation and Society

GEOL 1208	Environmental Geology: Atlantic Canada Perspective	POLI 1210	Political Ideas: "isms" and Beliefs
GEOL 2325	Sedimentology [GEOG 2325]	POLI 2307	Provincial Government and Politics
GSCI 1300	Introduction to Science Communication	POLI 3321	International Organization
GSCI 3300	Advanced Science Communication	POLI 3245	Public Policy I
HIST 1201	Civilization in the West	POLI 3246	Public Policy II
HIST 1203	The Twentieth Century in Europe	POLI 4493	Global Social Movements
HIST 1208	Global History: 1450 to the Present	PSYC 4418	Environmental Psychology
HIST 2201	Environmental History of Europe, 1300-1900	RELS 1211	Introduction to Religious Experience
IDST 2301	Introduction to International Development Studies: Perspectives	RELS 2347	Ecology and Religion
IDST 2302	Introduction to International Development Studies: Policies and Practice	RELS 3348	Religion and Ecological Issues in the Developing World [IDST 3348]
IDST 4470	Environment and Development	RELS 3349	Science and Religion
MGMT 3480	Ethical Responsibilities of Organizations	SJCS 1211	Social Power Relations
PHIL 1200	Critical Thinking	SJCS 2000	Canadian Society and Social Justice
PHIL 2305	Environmental Ethics	SJCS 2100	Community Organizing
PHIL 2318	Science and Society	SJCS 3408	Urban Sociology
PHIL 2331	Business Ethics	SJCS 3508	Corporate Crime
PHIL 3200	Environmental Aesthetics	SJCS 4570	Indigenous Politics and Settler Colonialism
PHYS 1370	Scientific Method [PHIL 1255]	SOCI 1210	Introductory Sociology
POLI 1201	Politics: Contemporary Issues	SOCI 3491	Rural Sociology
		SOCI 4519	Environment and Community
		SOCI 4843	Sociology of the Environment

Film Studies (FILM)

For further information, contact J. VanderBurgh, Associate Professor, English Language and Literature

A minor in Film Studies is available to undergraduate students in all three faculties.

This minor offers students an opportunity to become familiar with the history of filmmaking, the language employed in discourse about film, and styles of artistic and social commentary about film. This is an Inter-university program which allows students to obtain credit from any of the four participating institutions - Saint Mary's, Dalhousie, University of King's College, and the Nova Scotia College of Art and Design University.

Requirements: twenty-four (24) credit hours [twelve (12) required credit hours and twelve (12) elective credit hours].

See website at www.smu.ca/academic/arts/film for link to Halifax Interuniversity Film Studies Minor website. <http://halifaxfilmstudies.wordpress.com/>

Required courses [twelve (12) credit hours]

- (a) THEA 2301.03 Film History I (Dalhousie)
or
AHIS 2800 Film History and Criticism 1890 - 1940 (NSCAD)
- (b) THEA 3301.03 Film History II (Dalhousie)
or
AHIS 2810 History and Criticism 1940 – Present (NSCAD)
- (c) ENGL 2511 Reading Film (Saint Mary's) or THEA 2311.03 Film Analysis (Dalhousie)
- (d) THEA 3313.03 Documentary, Experimental and Animated (Dalhousie)

Elective courses [twelve (12) credit hours] currently available from the four cooperating institutions.

Recent electives offered:

Saint Mary's University

CRIM/SOSI 3546	Crime and the Media
ENGL 2313	Narrative in Fiction and Film (6.0)
ENGL 2325	The Media in Everyday Life
ENGL 3511	Film and the City
ENGL 3512	Contemporary Canadian Film and Television
HIST 3450	Film and History
RELS 3356	Religions and Film

Nova Scotia College of Art and Design

AHIS 3835	Topics in Film History: Contemporary Cinemas of Globalization
AHIS 3836	Topics in Film History: Subjectivities in Moving Pictures
AHIS 3837	Topics in Film History: Out on Screen
AHIS 3838	Topics in Film History: Sex and the Cinema
AHIS 3850	History and Criticism of Documentary Film
AHIS 3922	Topics in Film History: Hitchcock's Films
AHIS 4200	Independent Study in Film and Criticism

Dalhousie University

CHIN 3050.03	Topics in Asian Cinema
ENGL 2095.03	Narrative in the Cinema
ENGL 2313.03	Shakespeare and His Contemporaries on Film
FREN 2022.03	Aspects of French and Francophone Cinema: Analysis, History, Movements, Authors
FREN 2801.03	Cinema: The French Phenomenon II
GWST 3304.03	Through Her Eyes: Women and the Documentary Tradition
ITAL 2600.03	Survey of Italian Cinema
MUSC 2016.03	Topics in Music and Cinema
RUSN 2037.03	Russian Film II
RUSN 2046.03	East European Cinema: War, Love, and Revolutions
THEA 2360.03	Popular Cinema
THEA 2911.03	Stars and Stardom on Stage and Screen
THEA 3331.03	Film Theory II: Desire in the Cinema
THEA 3351.03	The Cinema of David Lynch
THEA 4390.03	Special Topics in Film Studies: Film Adaptation
THEA 4390.03	Special Topics in Film Studies: Irish Film

University of King's College

CTMP 3304.03	Through Her Eyes: Women and the Documentary Tradition
CTMP 3305.03	Modern Film and the Theory of the Gaz

Students are advised to consult the individual institutions' current *Academic Calendars* for up-to-date course listings. At Saint Mary's, further information is available from the Film Studies Committee Coordinator Jennifer VanderBurgh – Tel: 420-5718

The regular "Declaration of Major/Minor/Concentration" form is used to declare a minor. Students must fulfill all requirements for any minor(s) which they officially declared in order to qualify for graduation, or officially (i.e., in writing) withdraw their declaration of a minor(s).

Finance (FINA)

Chairperson	F. Boabang, Professor
Professors	F. Boabang, J.C. Dodds
Associate Professors	N. Attig, J. Dai, M. Moh'd, C. Panasian, M. Rahaman, G. Ye, A. Zaman
Assistant Professors	L. Chen, H. Driss, A. Khokhar, F. Munkel,

Finance courses are offered by the Department of Finance, Information Systems, and Management Science.

The requirements for the Finance major within the Bachelor of Commerce program are described below and in Section 3 of the *Calendar*. A Master of Finance degree is offered. This graduate program is described in the Graduate Studies Academic Calendar.

Note: Students are advised that possession of the minimum qualifications does not guarantee admission to a particular academic program. Limits to the number of students who can be in a particular program at any one time exist and depend very much on the number of faculty members available in a particular academic unit.

Upon completion of 45 credit hours, Commerce students with a cumulative grade point average of 2.0 may elect to declare a major in Finance. (In exceptional circumstances, students can also be admitted to the major by permission of the Chairperson.)

To assist students, the Year 3 and Year 4 course requirements for a Finance major and the core BComm degree program requirements are listed below. Course descriptions follow.

To complete a major in Finance, students must attain a minimum grade point average of 2.2 in FINA 4463, FINA 4466, FINA 4467 and the six (6) credit hours used to satisfy the 4000 level Finance electives requirement (as indicated below by *).

Year 3

ACCT 3343 Financial Accounting Analysis
 FINA 2360 Business Finance I
 FINA 3361 Business Finance II
 MGMT 3480 Ethical Responsibilities of Organizations
 Three (3) credit hours in Commerce electives at 3000 level or above
 Six (6) credit hours in non-Commerce electives
 Nine (9) credit hours in free electives

Year 4

*FINA 4463 Financial Management
 *FINA 4466 Investments
 *FINA 4467 Portfolio Management
 MGMT 4489 Strategic Management
 *Six (6) credit hours in Finance electives at 4000 level except FINA 4491 [ACCT 4445 and ECON 4403 may be used to satisfy this requirement.]
 Six (6) credit hours in non-Commerce electives
 Six (6) credit hours in free electives

Course Descriptions

2360 Business Finance I

3 credit hours
 Prerequisite: ECON 1201 and 1202; ACCT 2241; and MGSC 1205.

A basic course in business finance introducing the student to the discipline and presenting financial analysis, working capital management, capital budgeting, the tax environment and the role of financial intermediaries. Microcomputers will be used to perform analyses.

3361 Business Finance II

3 credit hours
 Prerequisite: FINA 2360 and MGSC 2207.

A continuation from FINA 2360 covering cost of capital, capital mix, capital and money markets, dividend policy, financial instruments and mergers, consolidations and bankruptcy. Microcomputers will be used to perform analyses.

3362 Principles of Real Estate and Appraisal

3 credit hours
 Prerequisite: FINA 3361 (or concurrently)

An introduction to the study of real estate investment analysis and valuation. The course relates financial and economic principles to the examination of investment and financing decisions in real estate and mortgage markets. Topics include a discussion of the unique characteristics of real estate assets and markets, the investment process, appraisal, financing and market analysis.

3364 Canadian Securities

3 credit hours
 Prerequisite: FINA 2360 or permission of instructor.

The topics covered in this course include an overview of capital markets and the financial services industry; financial statement analysis; an overview of the Canadian economy; fixed income securities; equity securities; investment funds; derivatives; security analysis; financing, listing and regulation; financial planning and taxation issues; and portfolio management. These topics are based on the curriculum of the Canadian Securities Course™ (CSC). Substantial additional fees are required for this course.

3826 – 3849 Special Topics in Finance

3 credit hours
 Prerequisite: permission of instructor

3876 – 3899 Directed Study in Finance

3 credit hours
 Prerequisite: permission of instructor

4463 Financial Management

3 credit hours

Prerequisite: FINA 3361 and COMM 2293.

This course expands on the three basic corporate finance decisions: capital investment, capital structure and dividend policy. It also examines current practices in short and long-term financing as well as financial planning. Finally, the course examines issues in topics such as lease financing, mergers and acquisitions and hedging risk. Case studies may be utilized to apply different concepts and techniques learned in the class to real world problems.

4466 Investments

3 credit hours

Prerequisite: FINA 3361 and COMM 2293.

This course presents an overview of the Canadian investment environment. A framework is developed for assessing the merits of various securities that trade in the money and capital markets. Topics covered in this course include sources of financial information, Canadian market indicators, risk and return and market efficiency, the analysis of fixed income and equity securities, derivatives and margin trading on securities. A brief introduction to portfolio management is given.

4467 Portfolio Management

3 credit hours

Prerequisite: FINA 4466 and COMM 2293.

A comprehensive analysis of the decision-making process of portfolio management. Major subject areas include the different types of funds, their objectives and performance evaluation; an analysis of the aggregate stock market, industry, and company; bond portfolio analysis and interest rate risk management.

4468 Financial Derivatives

3 credit hours

Prerequisite: FINA 4466 and COMM 2293.

This course provides a comprehensive analysis of the types of financial innovations taking place in the marketplace, focusing on derivative securities such as the futures, options, and swap markets. Topics covered include stock and index option strategies, currency options, and interest rate options; commodity futures; currency, interest rate, and commodity swaps. Applications to hedging strategies will be emphasized.

4470 Fixed Income Securities

3 credit hours

Prerequisite: FINA 4466 and COMM 2293.

This course provides a detailed analysis of the bond market and the instruments available therein. Although the emphasis is on North American securities, global portfolios are also examined. Bond valuation and bond portfolio strategies are covered in depth. Treasury securities, corporate bonds, municipal bonds, mortgages, mortgage backed securities, CMO's and interest rate options are addressed.

4471 Financial Institutions

3 credit hours

Prerequisite: FINA 3361 and COMM 2293.

This course will deal with the structure and function of Canadian financial institutions such as: banks, brokers and investment banks, insurance companies and mutual funds. The role of each type of institution in the economy will be discussed as well as regulation of the industry. The main emphasis of the course will be on the institutions as businesses; their profit and risk structure.

4472 Computerized Portfolio Analysis

3 credit hours

Prerequisites: FINA 3361; COMM 2293; and ACCT 2242

This course will provide students with exposure to the use of various software packages in analyzing and tracking investment decisions. Emphasis will be on the gathering of financial and economic data, analysis of data in making investment decisions, and tracking and analyzing investment performance. In addition to common tools such as spreadsheets, the course will make use of state-of-the-art software currently used in the financial services industry.

4473 Current Trends in Capital Markets

3 credit hours

Prerequisites: COMM 2293, ACCT 2242, and FINA 3361

The purpose of this course is to provide a broad overview of the various financial instruments available and their role within investment strategies, as well as to examine current trends in the global capital markets. While some time will be allocated to the traditional asset classes (equities, bonds), the emphasis of the course is on the non-traditional, or alternative, assets classes that have recently been developed or gained popularity, such as mortgages backed securities and other fixed income securities, the myriad forms of swaps, other derivatives, real estate, private equity, etc. The emphasis is on the structure of these instruments and their risk-return characteristics. The usual context will be that of a large institutional investor such as a pension plan, insurance company or hedge fund. Also the linkages amongst the various markets in a global context will be discussed.

4476 International Financial Management

3 credit hours

Prerequisite: FINA 3361 and COMM 2293.

This course is divided into three major parts. The first part provides a basic understanding of the forces that determine the relative values of currencies in the foreign exchange markets. Parts two and three focus on the firm with the financing of international operations and capital budgeting decisions.

4490 Seminar in Finance

3 credit hours

Prerequisite: COMM 2293 and permission of Chairperson.

This course deals with selected topics in finance. It is offered when in sufficient demand, and specific topics

covered may vary depending on the interests of students and instructor.

4491 Small Business Consultancy

3 credit hours

Prerequisite: COMM 2293 and permission of Chairperson.

This course allows students to gain hands-on business experience by working with clients of the Saint Mary's University Business Development Centre. Student groups receive a project proposal outlining the requirements, information needs and services they will provide the client during the semester. Projects generally take the form of a business plan, market study, or other business-related function and often involve financial projections. Each project provides students an opportunity to use skills learned in business courses and to understand the interrelationship between marketing, accounting, finance, and management in a practical business setting. Under supervision, students prepare a professional report and final presentation that communicate the project's result for the client.

Work groups often include students from different disciplines and are assigned based upon the needs of the project. Groups schedule their preferred meeting times but are required to meet a minimum of three hours each week. For more information see <http://www.smu.ca/smubdc>.

Internship 1 semester.

4571 IMPACT Program 1

3 credit hours

Prerequisite: permission of instructor

This is an introductory course in applied investment management. The course is the first of two courses that support the investment management of the Sobey School of Business's IMPACT Fund. Students who are admitted to the program will undertake a comprehensive economic analysis of the Canadian economy and use this to generate top-down portfolio allocation decisions. In addition,

students will learn how to generate financial research reports using state-of-the-art financial tools. Emphasis will be placed on generating, interpreting and applying comparative company analysis reports.

4572 IMPACT Program 2

3 credit hours

Prerequisite: FINA 4571 and permission of instructor

This is an advanced course in applied investment management. The course is the second of two courses that support the investment management of the Sobey School of Business's IMPACT Fund. Students who are admitted to this program will be responsible for making portfolio allocation decisions for the fund. Students will use comparable company analysis in conjunction with more advanced financial models, such as cash flow and real options models, in making bottom-up active portfolio management decisions.

4826 – 4849 Special Topics in Finance

3 credit hours

Prerequisite: permission of instructor

4876 – 4899 Directed Study

3 credit hours

Prerequisite: COMM 2293 and permission of Chairperson.

Intended to supplement or provide an alternative to the regular finance courses in order to meet the special needs and interests of students, the course provides an opportunity to study a particular subject in detail and requires from the student some measure of independence and initiative. Prior to undertaking registration for this course, students must have a detailed course proposal approved by the appropriate instructor. Proof of this approval must be submitted at the time of registration for the course. Students are encouraged to obtain this approval prior to leaving campus in the spring.

Tutorial and independent study.

Certificate in Financial Instrument Analysis

The Certificate in Financial Instrument Analysis is designed to meet the demand for skilled labour in the financial services sector. Capital markets, and the financial instruments traded in them, have become increasingly complex. The rapid pace of change creates the need for advanced knowledge of world capital markets and complex financial instruments. Concurrent with this, has been an increasing demand among the accounting profession for individuals with traditional accounting training and knowledge, as well as more specialized knowledge of financial instruments, their uses and effects, and capital markets in general.

The Certificate in Financial Instrument Analysis uses a combination of finance and accounting courses to provide graduates with skills necessary for courses in a wide range of jobs in the financial services sector. The Certificate will also be of interest to students intending to pursue an accounting designation, but who desire more advanced knowledge of financial instruments than is currently available through existing universities or professional association curricula.

Program Structure

The Certificate in Financial Instrument Analysis can be completed in conjunction with a Bachelor of Commerce degree or as a standalone certification for those seeking professional development in their disciplinary areas.

There are two streams within the Certificate in Financial Instrument Analysis, the Accounting stream and the Finance stream. Students may choose either the Accounting or the Financial Stream (**cannot qualify for both**). The required courses for each stream are as follows:

Accounting Stream (CFIA)

ACCT 2241	Introductory Financial Accounting
ACCT 2242	Introductory Managerial Accounting
ACCT 3350	Financial Accounting Foundations – see Note
ACCT 3351	Intermediate Financial Accounting I – see Note
ACCT 3352	Intermediate Financial Accounting II – see Note
ACCT 4450	Auditing
ACCT 4465	Accounting for Financial Instruments
FINA 2360	Business Finance I
FINA 3361	Business Finance II
FINA 4472	Computerized Portfolio Analysis and Reporting Systems
Either	
FINA 4470	Fixed Income Securities, or
FINA 4473	Current Trends in Capital Markets

Note: The requirement for ACCT 3350, 3351, and 3352 may be replaced by ACCT 3341, 3342, and 3345.

Financial Stream (CFIF)

ACCT 2241	Introductory Financial Accounting
ACCT 2242	Introductory Managerial Accounting

ACCT 3343	Financial Accounting Analysis
ACCT 4465	Accounting for Financial Instruments
FINA 2360	Business Finance I
FINA 3361	Business Finance II
FINA 4466	Investments
FINA 4467	Portfolio Management
FINA 4468	Financial Derivatives
FINA 4472	Computerized Portfolio Analysis and Reporting Systems
Either	
FINA 4470	Fixed Income Securities, or
FINA 4473	Current Trends in Capital Markets

Admission Requirements

For current Bachelor of Commerce students, the Certificate of Financial Instrument Analysis requires a formal application to the Office of the Bcomm. Program. Students must have completed a minimum of forty-five (45) credit hours of undergraduate study, and possess a minimum CGPA of 2.0.

Students wishing to complete the Certificate without pursuing an undergraduate degree at Saint Mary's University must meet, at a minimum, the mature admission requirement for the Bachelor of Commerce program. Application for the Certificate should be made through the Admissions Office.

Prerequisite Courses (24 credit hours)

Students pursuing only the Certificate in Financial Instrument Analysis (accounting or finance stream) will require the following courses (or their equivalents) as prerequisites. It is the student's responsibility to ensure appropriate prerequisites have been taken.

MGMT 1281	Introduction to Business Management
ECON 1201	Principles of Economics: Micro
ECON 1202	Principles of Economics: Macro
MGSC 1205	Quantitative Methods I
MGSC 1206	Quantitative Methods II
MGSC 2207	Introductory Statistics
CISY 1225	Introduction to Computer Applications
COMM 2293	Communications

Advanced Standing

Students with courses from previous postsecondary educational institutions will be assessed upon admission to the Certificate by the Office of the Bcomm Program. Students must complete at least 50% of the courses (18 credit hours) at Saint Mary's University.

Credit will not automatically be recognized for university courses completed ten (10) or more years prior to the student's return to university study.

Requirements for Graduation

To graduate with the Certificate in Financial Instrument Analysis, students must attain a minimum GPA of 2.0 out of 4.3 on the required courses.

Academic Requirements

All academic regulations governing students in degree and diploma courses also apply to students enrolled in this Certificate Program.

Forensic Sciences (FRSC)

Coordinator: T. Frasier, Associate Professor,
Biology/Forensic Sciences
Associate Professors T. Frasier, Biology/Forensic Sciences
Adjunct Professors M. Bowes, C. Garrido Varas,
P. Miller, A. Mulnix, M. Wood

Forensic Sciences refers to the application of scientific disciplines for the purposes of legal investigations, either criminal or civil in nature. With this broad definition, forensic scientists can be trained in many different fields, including biology, anthropology, chemistry, genetics, toxicology, psychology, etc. In Canada, police forces are regularly involved in forensic investigations, but there are others, (e.g., medical personnel, dentists, biologists, criminologists and anthropologists), who are interested in, or can benefit from, training in forensic sciences.

The Certificate in Forensic Sciences is a recognition of the successful completion of a set of requirements, designed to expose students to selected facets of the application of science to the law. Progressing through the program as a cohort group, students learn directly from both research faculty and external field experts, to develop their awareness of the science underpinning physical evidence investigation. The Certificate program is an added distinction to the Bachelor degree with Major (or Honours), which is completed concurrently with the fulfillment of the requirements for the student's chosen major. It is not a stand-alone program.

The Certificate builds on a required first-year science foundation, and is comprised of an eighteen (18) credit-hour core in fundamental forensic sciences breadth, and an additional six (6) credit hours of selected program electives aligning with the student's particular major, and with their future goals in related practice or continued study.

Program Goals

The Certificate is intended to provide motivated undergraduate students focused opportunities to explore their expressed interest in the application of scientific concepts, methods of analysis, and critical evaluation, to forensic matters. The goal is to add special interest, applied study to a core discipline major in a way that can help to prepare students for post-graduate education in desired related fields. Critical thinking practice is at the core of the program with an inherent focus on the development of such intellectually disciplined processes of applying, analyzing, and evaluating information, results, and conclusions.

Admission to the Certificate in Forensic Sciences

Admission to the Certificate in Forensic Sciences is by approval of the Program Coordinator following review of student applications on an annual basis (normally in February of each year). Directions and deadlines for

applications are available online on the Forensic Sciences webpage. Interested students should commence their inquiry about the Certificate Program with a Science Advisor as soon as possible so that they are best prepared for admission.

Applicants must be current Saint Mary's University students with a declared major (or clearly-stated intended major, if admission to the particular major is not yet allowable). Applicants must have completed at least thirty (30) credit hours by the end of the winter semester in the year in which they are applying, with a minimum CGPA of 3.00, including the following admission pre-requisite courses:

- BIOL 1201 Molecular and Cell Biology
- BIOL 1202 Organismal and Ecological Biology
- CHEM 1210 General Chemistry I
- CHEM 1211/1212/1213 General Chemistry II

Certificate in Forensic Sciences - Requirements

The twenty-four (24) credit hours used to satisfy the requirements for the Certificate in Forensic Sciences are listed below. A minimum GPA of 3.00 must be achieved in the courses used to satisfy these twenty-four credit hours. Students must complete any prerequisites for these courses.

1. Twelve (12) Credit hours Required:

- FRSC 2200 Basic Sciences for Forensics I
- FRSC 2201 Basic Sciences for Forensics II
- FRSC 3310 The Role of Science in Forensics
- FRSC 3350 Forensic Sciences in Practice

2. Twelve (12) Credit Hours Science-Electives with at least six (6) credit hours from FRSC in addition to those used to satisfy requirement above from:

- FRSC 3007 Forensic DNA Typing
- FRSC 3400 Forensic Human Anatomy
- FRSC 4002 Wildlife Forensics
- FRSC 3800-49 Special Topics in Forensic Science
- FRSC 3876-99 Directed Studies in Forensic Science
- ANTH 2282 Introduction to Forensic Anthropology
- ANTH 3471 Forensic Skeletal Identification
- ANTH 3472 Forensic Skeletal Analysis
- ANTH 3473 Forensic Facial Anatomy
- BIOL 2307 Genetics
- PSYC 3320 Psychology and Law
- PSYC 3338 Introduction to Forensic Psychology
- PSYC 3349 Drugs and Behaviour
- PSYC 4438 Advanced Forensic Psychology
- PSYC 4443 Advanced Psychology and Law

The following courses are restricted to those students accepted into the Certificate in Forensic Sciences Program at Saint Mary's University. Courses in

Forensic Science cannot be used to satisfy course requirements for the major or honours in Biology.

All the following courses have 3 hour classes and 3 hour lab/tutorial per week.

Course Descriptions

2200 Basic Sciences for Forensics I

3 credit hours

Prerequisite: acceptance into Certificate in Forensic Sciences Program.

Faculty and external specialists from several scientific disciplines provide an introduction to the interdisciplinary nature of the application of sciences within Forensics. Applications include the collection, examination, evaluation and interpretation of physical evidence within the judiciary process of criminal investigation. Scientific theories and principles underlying these applications are examined.

Note: Please note that this course may not be used by B.Sc. students to satisfy the requirement of a science elective under regulations 3.e., 6.e., 10.c., and 12.b. for B.Sc. degrees.

2201 Basic Sciences for Forensics II

3 credit hours

Prerequisite: acceptance into Certificate in Forensic Sciences Program.

This course is a continuation of Basic Sciences for Forensics I.

Note: Please note that this course may not be used by B.Sc. students to satisfy the requirement of a science elective under regulations 3.e., 6.e., 10.c., and 12.b. for B.Sc. degrees.

3310 The Role of Science in Forensics

3 credit hours

Prerequisite: FRSC 2200 and 2201.

Students gain the skills needed to develop a critical perspective regarding the science underlying the practice of different fields in forensics. These skills are applied to critique different fields, and to learn from the problems forensics has faced regarding a historical lack of scientific rigor.

3007 Forensic DNA Typing [BIOL 3007]

3 credit hours

Prerequisite: BIOL 2307

Students study all aspects of forensic DNA typing protocols, and interpretation. Lectures focus on theory and laboratory sessions involve actual DNA typing, where students work with their own DNA. These skills are highly transferrable, and are applicable to the genetic analysis of populations in general.

3350 Forensic Sciences in Practice

3 credit hours

Prerequisite: FRSC 2200 and 2201 and 3310.

This is the capstone course for the certificate in Forensic Sciences Program. Students will integrate their learning from previous courses, gain a deeper understanding of areas of interest, and improve communication skills through student-centered activities, such as the completion of research projects and collaboration with experts.

3400 Forensic Human Anatomy

3 credit hours

Prerequisite: FRSC 2200 and FRSC 2201

Students are provided with a systematic approach to the study of human anatomy and the relation of structure design to facilitate function. Students investigate applied aspects of forensic anatomy of the deceased (cause and manner of death), as well as stress analyses and material properties of trauma and biomechanical forces acting on tissue.

3800-49 Special Topics in Forensic Science

3 credit hours

3876-99 Directed Studies in Forensic Science

3 credit hours

4002 Wildlife Forensics

3 credit hours

Prerequisite: BIOL 2307

The goals of this course are for students to learn about the techniques involved in wildlife forensics, how the resulting data are interpreted, and how this information is used in a legal setting. Although many aspects of wildlife forensics will be covered, there will be a focus on DNA methods.

Classes 3 hrs. and lab 3 hrs. a week

FRENCH (FREN)

Chairperson	M. McCallum
Professor	S. Beaulé
Associate Professors	R. Bannerjee, G. Nahrebecky, E. Tsedryk
Assistant Professor	J. J. Defert
Senior Lecturer	S. McGuire

For student advising and information on our French program, please contact any of the professors listed above.

Courses and programs in French are offered by the Department of Modern Languages and Classics

Department Policy - Modern Languages and Classics

1. Enrollment in some language courses involves the following formal placement procedures.

Students who have not previously taken a language course at this University, but who have a background in French, must take a placement test available on-line. Students who do not have any background in French should enroll in FREN 1111 without taking the test. At the beginning of each language class, students will also be asked to complete and sign a Language Profile Form attesting their language background.

All information regarding the placement test is available at the following link:

<http://www.smu.ca/academics/departments/mlc-programs-french-placement-test>.

- (i) Permission to register or remain in a particular language course can be refused if the Department judges that the student's knowledge exceeds the level for that course.
- (ii) Native speakers are not eligible to receive advanced credit for language courses.
- (iii) Completion of Advanced Standing (transfer) courses does not exempt a student from taking the placement test.

2. The student's eligibility to enroll in language, culture, and literature courses, and in specific sections of those courses, is determined by the Chairperson in consultation with the instructor in light of the student's ability level in the language concerned, previous course work completed at university or elsewhere, and overall size of the course or section of a course. In matters of placement, the decision of the Chairperson is final.

3. In order to ensure the academic integrity in language courses, especially at the lower levels of instruction, the Department of Modern Languages and Classics does not allow native or near-native speakers of a particular target language to enroll in courses at the 2000 level or lower.

Students who misrepresent their knowledge of any given language by providing inaccurate or incomplete information about their linguistic educational history will

be subject to disciplinary action as laid out in Academic Regulation 19.

4. The Department of Modern Languages and Classics supports a policy of regular class attendance by students. Frequent, unexplained absences from class will result in a lowering of the final grade in a manner to be determined by each faculty member.

5. Students enrolling in any French course below the 3000 level are required to take a placement test (unless they have previously successfully completed a French course at this University at the 3000 level).

6. Students should note that courses in literature and/or culture fulfill the BA Humanities requirement 3(c) but do not fulfill the 3(b) requirement. The courses designated with an * in front of the number satisfy the 3(c) requirement.

Programs in French

The following programs are available in French: Honours, a major, a minor, a concentration, study abroad, and a certificate of proficiency. See below for details. The Department offers a balanced program involving courses in language, culture and literature.

Those with a solid background in French, especially Francophones or those having attended a French school, are to begin their studies with courses beyond FREN 2235/2236. This condition may also apply to certain high school immersion graduates. Native, near-native, or fluent speakers of French may not enroll in courses at the 2000 level or below. Courses at the 2000 and 3000 levels cannot be taken concurrently.

FREN 2235 is the normal starting point for majors. High school graduates having completed the "Core" program should enroll in FREN 2201. Students who have taken French at another university are asked to consult with the Chairperson before registering.

Students are required to do the online Placement Test (on Departmental Website) in order to find the course that best suits their needs. Students having previously taken FREN 1111 and 1112 or 2201 and 2202 at Saint Mary's are not required to take the placement test.

Students interested in doing a Major or a Minor in French or in teaching French as a career are strongly advised to seek assistance from the Department on course selection and teacher training programs as early as possible.

Honours in French with three possible options: Linguistics, Literature, and Culture

All prospective honours students should refer to the section of this *Calendar* pertaining to honours degrees. Students with a minimum cumulative grade point average of 3.00 can apply to the Registrar for admission to the honours program after having satisfied the requirements of the major program. In addition to the overall grade point

average of 3.00 requirement, prospective honors students are expected to have demonstrated a B+ (or 3.3 of GPA out of 4.3) cumulative average in the French major program.

Honours degrees consist of sixty (60) credit hours. Beyond the requirements for the French major, eighteen (18) additional credit hours in French are required: FREN 4500, The Honours Essay, and twelve (12) credit hours at the 3000-4000 level (other than FREN 3307, 3308, 3350 and 3351).

The Chair of the Department will direct students to the appropriate faculty member with whom they will discuss the topic and the nature of the Honours essay. The deadline for such a meeting is May 31, prior to the year of entry into the program. For additional detail regarding Honours guidelines, please go to the department webpage.

Major in French

A major in French normally consists of at least forty-two (42) credit hours in French beyond FREN 2202 with the following requirements:

FREN 3307; 3308 and 3350; 3351

Six (6) credit hours at the 3000 or 4000 level in culture;

Six (6) credit hours at the 4000 level in literature;

Six (6) credit hours at the 4000 level in language;

Six (6) credit hours at the 4000 level in FREN electives.

Language Courses	Culture Courses	Literature Courses
1111	2200	3350
1112	2260	3351
2201	2300	4405
2202	3310	4410
2235	3312	4412
2236	4410	4418
3307	4440	4422
3308	4463	4426
3320	4827	4433
3321	4849	4451
3331		4452
3335		4455
4400		4457
4435		4460
4436		4461
4437		4826
4438		4827

Concentration in French

To obtain a concentration in French in partial fulfillment of the B.A. General Degree (i.e. one with a Double Arts Concentration and a minimum of ninety (90) credit hours), a minimum of twenty-four (24) credit hours in French is required. At most 6 credit hours can be at the 1000 level. Also, the minimum grade point average is 2.00.

Minor in French

A minor in French consists of twenty-four (24) credit hours. Students must complete at least eighteen (18) credit hours at the 2000 level or above and a minimum of three (3) credit hours at the 3000 level. Students also have the option of counting a maximum of three (3) credit hours of French culture courses delivered in English towards the minor.

Year Abroad at the Université Catholique d'Angers, France

This study abroad program consists of two semesters: a Fall semester (October - January), and a Spring semester (February - June), during which course work in language, culture and literature is offered. One-month programs are also available in the summer during the months of July, August, and September. These are strictly language courses. Students who successfully complete their programs receive credit recognition at Saint Mary's University: fifteen (15) credit hours per semester and six (6) credit hours each for the months of July, August or September. To be eligible to participate in this Study Abroad program, students must have the approval of the Coordinator of the program, and must have a CGPA of 2.00 or above. Although students will take a placement test upon their arrival in France, it is strongly advised that they complete at least six (6) credit hours in French at Saint Mary's in the year prior to their departure.

Information sessions about the Study Abroad program will be held in the months of October and February every year. Please inquire at the secretary's office, 902-420-5808.

With the Department's approval, a student may undertake a year of study at another French-speaking university.

Certificate of Proficiency in French (CPF)

This certificate confirms that the student has earned twenty-four (24) credit hours beyond FREN 1112, with at least twelve (12) of these being at the 3000 level or above. In addition, the student must have passed an oral and written examination and, in so doing, has demonstrated an acceptable level of proficiency in understanding, speaking, reading and writing. Students interested in the certificate program should consult with the Chairperson in order to determine their program of study and to register for the examination which is usually given in the spring. The student's transcript will bear an entry signifying that the certificate has been awarded.

Course Descriptions

1111 Beginners' French Level I

3 credit hours

Prerequisite: placement test.

An introductory course for students who have not had formal training in French, or not enough to justify their admission to FREN 2201 and 2202 as demonstrated on the placement test. Students who have completed two (2) years of senior high Core French or equivalent are not eligible for enrollment in this course.

Note: This course does not count toward the French major and is not intended for immersion students or those having had enriched or extended French programs, or Francophone students.

1112 Beginners French Level II

3 credit hours

Prerequisite: FREN 1111 with a minimum grade of C and taken within the previous twelve (12) months. and/or placement test in french.

This course continues the elementary skill development started in Level I, and is intended for students who have not completed Grade 12 French.

Note: This course does not count toward the French major and is not intended for immersion students or those having had enriched or extended French programs, or francophone students.

2200 Oral Traditions in the Francophone World

Prerequisite: none.

This course delivered in English examines the oral traditions and literary genres of the Francophone world, in particular, those from Asia, Africa, Oceania and the Caribbean. Students will examine traditional rituals, the music and song styles associated with them, contemporary forms of traditional and popular culture, oral traditional narrative, prose, religious texts and poetry. No previous training in French required. This course cannot count towards a French Minor or Major.

2201 Basic University French Level I

3 credit hours

Prerequisite: placement test or FREN 1111 and 1112 with a minimum grade of C.

A student enrolling in this course should have completed three (3) years of senior high "core" French or already possess an equivalent knowledge of French, as demonstrated on the placement test. This is a general language course for non- or pre-majors with emphasis placed on developing communicative skills. Taught in French.

Note: This course cannot be counted for the French major and is not intended for immersion students or those having had enriched or extended French programs, or francophone students.

2202 Basic University French Level II

3 credit hours

Prerequisite: FREN 2201 with a minimum grade of C and taken within the previous twelve (12) months.

Taught in French, this general language course continues in the development of the basic skill set studied in Level I, with emphasis on oral functional ability.

Note: FREN 2202 must be taken within twelve (12) months of completing Level I. This course cannot be counted for the French major and is not intended for immersion students or those having had enriched or extended French programs, or francophone students.

2235 Intermediate French Level I

3 credit hours

Prerequisite: placement test or six (6) credit hours in FREN at the 2000 level or equivalent with a minimum grade of C.

Taught in French, this is a general language development course at a more intensive level involving oral and written practice and a review of grammar. This is the normal starting point for majors, immersion students, and those having had enriched or extended French programs. Students with more developed skills, including Francophones, start at the 3000 level.

2236 Intermediate French Level II

3 credit hours

Prerequisite: FREN 2235 or equivalent with a minimum grade of C and/or placement test.

This intensive course further expands the oral and written proficiency standards covered in Level I. Level II must be taken within twelve (12) months of completing Level I. Students with more developed skills, including Francophones, start at the 3000 level.

2260 Francophone Cultures Through Film

3 credit hours

Taught in English. Students are introduced to Francophone cultures through the medium of film, focusing on French-speaking countries outside of Europe and North America. Students gain a deeper understanding of the complexities of the colonial and postcolonial experience and how these issues affect the contemporary Francophone sociocultural landscape, thereby developing more informed global perspectives and intercultural awareness.

2300 French Film Comedy

3 credit hours

This course is taught in English. Students are exposed to a variety of sub-genres of French film comedy (slapstick, satire, farce, black humour, and romantic comedy) as well as several of France's best-known comedic artists. All films are in French with English subtitles; no previous experience in French is necessary.

Class 2 hours and lab/screening 2 hours.

3307 Advanced French Language Skills I

3 credit hours

Prerequisite: FREN 2236 with a minimum grade of C.

A practical course intended to continue the development of the student's Linguistic abilities. This course focuses on writing skills, yet also includes the aural/oral practice necessary for advanced studies in French. Knowledge of intermediate level grammar is assumed. Grammatical points will be reviewed as required.

Note: This course is compulsory for all students who intend to major in French.

3308 Advanced French Language Skills II

3 credit hours

Prerequisite: FREN 3307 with a minimum grade of C.

Taught in French, this is a language development course focusing on written and oral communication at an advanced level and in formal contexts. Grammar points may be reviewed as required but do not form the focal point of the course. This course is compulsory for French majors. A practical course intended to continue the development of the student's Linguistic abilities. This course focuses on writing skills, yet also includes the aural/oral practice necessary for advanced studies in French. Contemporary texts as well as audio-visual material will provide a basis for discussion and writing. Knowledge of intermediate level grammar is assumed. Grammatical points will be reviewed as required.

Note: This course is compulsory for all students who intend to major in French.

***3310 Introduction to French Culture**

3 credit hours

Prerequisite: FREN 2236 with a minimum grade of C

This course focuses on contemporary French culture, France's role in the European Union and the country's efforts to reconcile modern developments and ethnic diversity with tradition. Topics covered include history, politics, education, the arts and gastronomy. Films, TV broadcasts, slides, and magazine and newspaper articles will assist students in developing informed perspectives on French culture. This course is of particular interest to current or prospective French teachers.

***3312 Introduction to Quebec Culture**

3 credit hours

Prerequisite: FREN 2236 with a minimum grade of C

This course informs students about present-day life in Quebec. Topics covered include bilingualism, politics, education, the arts and leisure. Students will gain a deeper understanding of and appreciation for contemporary Quebec culture. This course is of particular interest to current or prospective teachers of French.

3315 Academic Translation I

3 credit hours

Prerequisite: FREN 2236 with a minimum grade of C

Students will work on a variety of literary, business and legal texts, both in English and in French. Students will reinforce translation methodology and theory through practical exercises and the analysis of translation in film and print media including subtitled/dubbed films, food labels and bilingual advertisements.

3320 French Phonetics [LING 2321]

3 credit hours

Prerequisite: FREN 2236 with a minimum grade of C

A course for students beyond the intermediate level who wish to improve their pronunciation. Knowledge of intermediate level grammar is assumed.

3321 Writing in French

3 credit hours

Prerequisite: FREN 2236 with a minimum grade of C

A course for students beyond the intermediate level who wish to improve their command of written French by engaging in a variety of writing activities involving the production of different types of texts. Knowledge of intermediate level grammar is assumed.

3331 French Review Grammar

3 credit hours

Prerequisite: FREN 2236 with a minimum grade of C

Is your grammar rusty? This intensive review of French grammar covers the basic points and those aspects of language use that are particularly difficult for English speakers. This course is of interest to those wanting to perfect their accuracy, to broaden their knowledge of French structure.

3335 French for Business

3 credit hours

Prerequisite: FREN 2236 with a minimum grade of C or placement test.

Students will acquire the basic vocabulary and reading skills necessary to understand business correspondence, reports, and articles in French, as well as writing skills to allow written communication in French in a Canadian commercial context.

***3350 Introduction to Literature Written in French, I**

3 credit hours

Prerequisite: FREN 2236 with a minimum grade of C

A selection of modern writing in French drawn from poetry, fables, short stories, drama and novels. The purpose of this course is to teach students to read literary language, to grasp structural relationships, and to interact with various works in terms of theme, character portrayal and style.

Note: This course is required of all students who intend to major or take honours in French.

***3351 Introduction to Literature Written in French, II**

3 credit hours

Prerequisite: FREN 2236 with a minimum grade of C

A selection of modern writing in French drawn from poetry, fables, short stories, drama and novels. The purpose of this course is to teach students to read literary language, to grasp structural relationships, and to interact with various works in terms of theme, character portrayal and rhetorical devices.

Note: This course is required of all students who intend to major or take honours in French.

3826 – 3849 Special Topics in French

3 credit hours

Prerequisite: permission of instructor

3876 – 3899 Directed Study in French

3 credit hours

Prerequisite: permission of instructor

4400 French Speech Strategies: Perfecting Oral Skills

3 credit hours

Prerequisite: Six (6) credit hours in FREN credit at the 3000 level with a minimum grade of C.

An examination of speech acts and discursive features of language use found in real situations. Students practice how to structure and manage conversations at an advanced level in order to attain a higher level of oral proficiency.

Discussions, debates and oral reports on current events form the central point of this course. Of particular interest to current or prospective teachers of French.

***4410 La France en Chansons**

3 credit hours

Prerequisite: FREN 3350 and 3351 with a minimum grade of C. FREN 3310 is recommended.

Songs are part of daily life and reflect the evolution of the society in which they are rooted. They also have a genuine poetical value and in this respect, they are timeless. The purpose of this course is two-fold; first, to examine the cultural and historical background behind the works of France's most prestigious songwriters; second, to analyze the literary value of the lyrics. This course is of particular interest to prospective teachers of French.

***4416 The Eighteenth Century**

3 credit hours

Prerequisite: FREN 3350 and 3351 with a minimum grade of C.

A study of some of the major works of the eighteenth century with special emphasis given to *Les liaisons dangereuses* and the epistolary novel.

4418 Realism and Naturalism

3 credit hours

Prerequisite: FREN 3350 and 3351 with a minimum grade of C.

A study of some of the major novels of the second half of the nineteenth century and the literary movements which gave them form.

4422 Introduction to Literary Analysis

3 credit hours

Prerequisite: FREN 3350 and 3351 with a minimum grade of C.

The purpose of this course is to provide an understanding of contemporary francophone literature and thought through exposure to theatre, short stories and film scripts. The course will serve as an introduction to formal critical analysis of literature. We will examine how a text functions at various levels: intellectual, formal and symbolic, and how the coherence of a literary work reveals itself. In

addition, this course will provide opportunities for the student to learn how to organize a literature assignment (oral and written) and how to ground his/her thinking in the text.

***4426 The French Short Story**

3 credit hours

Prerequisite: FREN 3350 and 3351 with a minimum grade of C.

A study of a wide variety of modern short stories (19th and 20th centuries) illustrating the richness of this genre in francophone literature.

***4433 Women's Literature in France [WMST 4433]**

3 credit hours

Prerequisite: For FREN students, FREN 3307, 3308, and 3350, 3351 with a minimum grade of C. For WMST students, three (3) credit hours in WMST and six (6) credit hours in FREN at the 3000 level with a minimum grade of C.

This course will provide an introduction to French women's writing emphasizing the plurality of women's voices. The course contains an historical overview of women's writing in France and an analysis of individual texts based on feminine perspectives.

4435 Advanced Grammar I

3 credit hours

Prerequisite: FREN 3307 and 3308 and 3321 or 3331, each with a minimum grade of C.

A systematic review of the main points of French grammar within the context of a theoretical framework describing the nature and function of different parts of speech and the structure of simple and compound sentences. Strongly recommended for majors.

4436 Advanced Grammar II

3 credit hours

Prerequisite: FREN 4435 with a minimum grade of C.

A systematic review of the main points of French grammar within the context of a theoretical framework describing the nature and function of different parts of speech and the structure of simple and compound sentences. Strongly recommended for majors.

4437 Comparison of English and French Stylistics I

3 credit hours

Prerequisite: FREN 3307 and 3308 a minimum grade of C.

A course designed to increase the students' knowledge of French beyond vocabulary and grammar and to enable them to grasp the similarities and divergences between French and English. The course involves practice in French/English translation and emphasizes the theoretical aspects of French and English stylistics which aid in establishing a method for translation.

4438 Comparison of English and French Stylistics II

3 credit hours

Prerequisite: FREN 3307 and 3308 a minimum grade of C.

A course designed to increase the students' knowledge of French beyond vocabulary and grammar and to enable them to grasp the similarities and divergences between French and English. The course involves practice in French/English translation and emphasizes the theoretical aspects of French and English stylistics which aid in establishing a method of translation.

4440 Canadian French: Sociolinguistic Perspectives [LING 4440]

3 credit hours

Prerequisite: six (6) credit hours of FREN at the 3000 level or equivalent a minimum grade of C.

This course will examine the major features which distinguish Canadian French from European French, as well as the characteristics of the different varieties of French spoken in Canada, in particular Acadian and Quebecois French. The relationship between language and society will be studied both as a source of linguistic change and as a determining factor in current speech patterns. Authentic recorded speech samples will be used to illustrate the various aspects studied and will also serve to familiarize students with the French language as spoken in Canada.

***4451 Quebecois Literature I**

3 credit hours

Prerequisite: FREN 3350 and 3351 with a minimum grade of C.

A study of selected major works in Quebec literature from 1935 to 1960 in the context of their socio-cultural background.

***4452 Quebecois Literature II**

3 credit hours

Prerequisite: FREN 3350 and 3351 with a minimum grade of C.

A study of selected major works in Quebec literature from 1960 to the present in the context of their socio-cultural background.

4455 Littératures de genre

3 credit hours

Prerequisite: FREN 3350 and 3351 with a minimum grade of C.

Littératures de genre include the detective novel, science fiction, fantasy, comics, and gore. Students will analyze a combination of French and Francophone works belonging mainly to the 20th Century. Students will come to understand the social background and defining features of some of these.

***4460 20th Century French Literature**

3 credit hours

Prerequisite: FREN 3350 and 3351 with minimum grade of C.

A study of the important literary movements in French literature from 1900 to the New Novel of the 1950's.

***4461 Contemporary French Literature**

3 credit hours

Prerequisite: FREN 3350, 3351 and 3307 and 3308, with a minimum grade of C.

The course focuses on France's major authors from the 1980s to the present. The course explores how the traditional literary genres of theatre, poetry and the novel are often replaced by free-form genres, especially in the works of women writers.

4463 French and Francophone Cinemas

3 credit hours

Prerequisites: Six (6) credit hours in FREN at the 3000 level with a minimum grade of C.

Students explore diverse aspects of contemporary French and Francophone cultures and societies through the close analysis of film. Topics include notions of marginality, social exclusion, ethnicity and identity; the impact of multiculturalism and globalization; the role of feminism; and the concepts of "nation" and national cinemas.

Class 2 hours and lab/screening 2 hours.

4500 The Honours Essay

6 credit hours

French Honors' students are required to submit a substantial essay or complete a research project selected and prepared in conjunction with a faculty advisor.

4826 - 4849 Special Topics in Francophone Studies

3 credit hours

Prerequisite: French 3350 and French 3351

The purpose of these courses is to introduce students to the riches and variety of voices and contemporary Francophone cultures throughout the world, outside France and Québec. Topics to be considered include: issues of history, resistance, identity, gender and race. Students will discover the Francophone world through the media of literature, newspaper articles, art, music and film, which will enable them to develop informed perspectives on the emergence of diverse French-speaking cultures.

4876 – 4899 Directed Study

3 credit hours

A three (3) credit hour course open to students who wish to study a special author or subject through tutorials, independent study and research. The availability of this course depends upon the agreement of a particular faculty member who is prepared to direct the readings and study.

General Science (GSCI)

Dean S. Smith

General Science courses fall under the oversight of the office of the Dean of Science and do not fall under a specific department within the Faculty of Science.

Course Descriptions

1300 Introduction to Science Communication

This skills-based course covers the writing and communication techniques essential for science students. Topics include general writing and research skills, scientific writing and presenting, constructing scientific graphs and figures, and basic communication theory.

Note: B.Sc. students may use this course as either a science elective – under regulations 3(e), 6(e), and 12 (b) – or as an

Arts elective – under regulations 3 (c), and 6(c) – for B.Sc. degrees.

3300 Advanced Science Communication

This skills based course covers the methods and means of communicating scientific research to both academic and public audiences. Topics include scientific writing and presenting, funding and scholarship requests, media theory, public communications strategies, and communicating science through the media.

Note: B.Sc. students may use this course as either a science elective – under regulations 3(e), 6(e), and 12 (b) – or an Arts elective – under regulations 3 (c), and 6(c) – for B.Sc. degrees.

Geography (GEOG)

Chairperson	D. van Proosdij
Professors	C. Conrad, D. Gauthier, D. van Proosdij
Associate Professors	P. Giles, C. Suteanu
Assistant Professors	J. Grek Martin, M.J. Kwak, M. Novak
Adjunct Professors	T. Bouman, P. Bush, M. Fox, R. Gibson, K. Harper, K. Hamdan, J. Spinney
Professors Emeritus	R. McCalla, H. Millward,
Co-op Educational Advisor	D. van Proosdij

Website: www.smu.ca/ges

General Information

Geography is the study of the Earth's surface, and of the spatial distribution and patterns of its physical and human characteristics. Geographers study how nature and culture work to create distinct spaces, places, landscapes, and regions. Geography is a subject of practical importance in such fields as urban and regional planning, industrial location, marketing, resource development, environmental monitoring and management, and geomatics. It is possible to obtain a major or honours in geography in either a Bachelor of Arts or Bachelor of Science degree program.

Departmental Policy

1. The Department regards 1000-level courses as both service courses for the university in general and basic introductory courses for geography majors.

2. Because program changes occur from time to time with renumbered or restructured courses, students are advised that they are not eligible to take a course for credit

if they already have a credit for a comparable course, even if that course was taken at a different level or under a different number.

3. Majors and honours students should normally complete GEOG 2306 and GEOG 2356 before the end of their second year or, in the case of part-time students, before proceeding to other upper level courses.

4. All declared majors and honours students are assigned a faculty advisor with whom they should consult each year to review their progress and course selection.

5. The Department of Geography and Environmental Studies recognizes the importance of developing student's communication skills in preparation for participating in the work force and/or continuing their education at an advanced level. Therefore, in addition to addressing geographical content, the Department is committed to improving the written and oral communication skills of students in Geography courses by including evaluation of these communication skills in course work. The Department asks that, in written work submitted for grading, students follow the Style Guide for Geographers available through the Department web site or from the Department Secretary.

6. Geography courses are divided into four groups:
Group A -human geography courses;
Group B -physical geography courses;
Group C -techniques or methods courses;
Group D -integrative courses which may combine aspects of human geography, physical geography or techniques.

Depending on the degree program, Bachelor of Arts or Bachelor of Science, the required courses from each group

vary. The group to which each course belongs is shown beside each course's title.

General Requirements for a Major

Geography is both a social science as well as a natural science. Students may major in geography and obtain a Bachelor of Arts or Bachelor of Science degree. In either case forty-eight (48) geography credit hours are required. Not only must students meet the geography requirements to qualify for a major in geography in either a Bachelor of Arts or Bachelor of Science degree, they must also meet individual Faculty requirements to qualify for the degree (see relevant sections of the Calendar). Students in the Faculty of Arts must maintain a minimum cumulative grade point average of 2.00 (an average grade of C) in courses used to meet the minimum credit requirements for the major. Students in the Faculty of Science must obtain a minimum GPA of 2.2 in all of those courses used to satisfy the major subject area.

Requirements for a Major in Bachelor of Arts Degree

Forty-eight (48) credit-hours

- i. GEOG 1100 and GEOG 1200;
- ii. GEOG 2306, GEOG 2356 and GEOG 2386;
- iii. Three (3) credit-hours from GEOG 3326, GEOG 3356, GEOG 3386 or GEOG 3416;
- iv. Nine (9) credit-hours in GEOG at the 4000-level; and
- v. Twenty-one (21) credit-hours in GEOG.

Note: In addition to the eighteen (18) credit hours defined in (i), (ii) and (iii), the thirty (30) additional credit hours in GEOG may be taken from any group (A, B, C, D). After the student attains forty-eight (48) credit hours in GEOG, only Group A, C, and D courses count towards the Faculty of Arts regulation for Major and Honours students to complete "sixty-six (66) credit-hours in Arts subjects at the 2000-level or above" (Faculty of Arts Regulation 1a). Additional Group B courses could be taken as electives.

Requirements for a Major in Bachelor of Science Degree

Forty-Eight (48) credit-hours

- i. GEOG 1100 and GEOG 1200;
- ii. GEOG 2306, GEOG 2356 and GEOG 2386;
- iii. Three (3) credit-hours from GEOG 3326, GEOG 3356, GEOG 3386 or GEOG 3416;
- iii. At least eighteen (18) other credit-hours from Group B courses, of which at least three (3) credit-hours must be at the 4000-level;
- v. Twelve (12) other credit-hours in GEOG; and
- vi. A total of nine (9) credit-hours must be at the 4000-level in GEOG Group B, C, or D.

Note: After the student has attained the required forty-eight (48) credit hours in GEOG, any additional GEOG credits would be taken as free electives in the Faculty of Science.

Requirements for Geology/Geography Combined Programs

Requirements for the Major and honours

Geology/Geography Combined Programs are found in the Geology section of the calendar.

Requirements for Geography Major in a Bachelor of Arts Degree with a Minor in Geology

1. A Bachelor of Arts degree student may major in geography with a minor in geology by fulfilling the requirements for a minor as listed in the Geology section of the *Academic Calendar*.
2. Students accepted into the Geology minor program will be allowed to count twenty-four (24) credit-hours in Geology towards their Arts degree requirements.

Requirements for a Double Major in Geography and a science other than Geology in a Bachelor of Science Degree.

Thirty-six (36) credit-hours:

- i. GEOG 1100 and GEOG 1200;
- ii. GEOG 2306, GEOG 2356 and GEOG 2386;
- iii. Three (3) credit-hours from GEOG 3326, GEOG 3356, GEOG 3386 or GEOG 3416;
- iv. Fifteen (15) other credit-hours from GEOG Group B courses, of which at least three (3) credit-hours must be at the 4000-level;
- v. Three (3) other credit-hours at the 4000 level in GEOG Group B, C or D.
- vi. A total of six (6) credit-hours must be at the 4000-level in GEOG Group B, C or D.

Note: After the student has attained the required thirty-six (36) credit hours in GEOG, any additional GEOG credits would be taken as free electives in the Faculty of Science.

Requirements for a Concentration in Bachelor of Arts Degree

Twenty-four (24) credit-hours

- i. GEOG 1100, GEOG 1200 and GEOG 2306
- ii. GEOG 2356 or GEOG 2386
- iii. Twelve (12) other credit-hours in GEOG.

Requirements for a Concentration in Bachelor of Science Degree

Thirty (30) credit-hours

- i. GEOG 1100, GEOG 1200, and GEOG 2306
- ii. GEOG 2356 or GEOG 2386
- iii. Three (3) credit-hours from GEOG 2313, GEOG 2333 or GEOG 2343
- iv. Nine (9) credit-hours from Group B or C courses
- v. Six (6) other credit-hours in GEOG.

Honours Program

1. Depending on whether the student is undertaking a Bachelor of Arts or a Bachelor of Science degree, the regulations of the respective Faculty apply to admission, continuance and graduation from the honours program.
2. To be admitted to the honours program, a student must have at least a B standing in geography courses and have obtained satisfactory grades in non-geography courses. Possession of the minimum requirements does not

establish the right of an applicant to be admitted, or readmitted, to the program.

3. Each year students should seek advice on their program of courses from the Honours Program Coordinator.

4. Students admitted to the program are responsible for finding a member of the Department to act as their Honours supervisor.

5. Complete details regarding the Honours Thesis are contained in *Regulations for the Honours Thesis (Geography 4526)* available from the Departmental secretary.

6. Besides meeting the respective Faculty credit hours and grade level requirements, students must complete a total of seventy-two (72) credit hours in geography to qualify for graduation with honours.

Requirements for Honours in a Bachelor of Arts Degree

Seventy-two (72) credit-hours

- i. GEOG 1100 and GEOG 1200
- ii. GEOG 2306, GEOG 2356 and GEOG 2386
- iii. GEOG 3326 or GEOG 3416
- iv. GEOG 3356 or GEOG 3386
- v. GEOG 3004 and GEOG 4406
- vi. GEOG 4526
- vii. Thirty-nine (39) other GEOG credit hours from any group of which at least six (6) credit hours must be at the 4000-level

Requirements for Honours in a Bachelor of Science Degree

Seventy-two (72) credit-hours

- i. GEOG 1100 and GEOG 1200
- ii. GEOG 2306, GEOG 2356 and GEOG 2386
- iii. GEOG 3326 or GEOG 3416
- iv. GEOG 3356 or GEOG 3386
- v. Three (3) credit-hours from Group B courses at the 4000 level
- vi. At least fifteen (15) other credit-hours from Group B courses
- vii. GEOG 3004 and GEOG 4406
- viii. GEOG 4526
- ix. Three (3) credit hours in GEOG at the 4000 level
- x. Eighteen (18) other credit-hours in GEOG

Requirements for Minor in a Bachelor of Arts or Bachelor of Commerce Degree

Twenty-four (24) credit-hours

- i. GEOG 1100, GEOG 1200 and GEOG 2306
- ii. GEOG 2356 or GEOG 2386
- iii. Twelve (12) other credit-hours in GEOG

Requirements for Minor in Geography in a Bachelor of Environmental Studies Degree

Twenty-four (24) credit hours

- i. GEOG 1100 and 1200
- ii. GEOG 2306, 2356 and 2386
- iii. GEOG 3356 or 3386
- iv. Six (6) other credit hours in GEOG, which may only be counted as approved B.E.S. electives or free electives in fulfillment of the B.E.S. degree requirements.

Requirements for Minor in a Bachelor of Science Degree

Thirty (30) credit-hours

- i. GEOG 1100, GEOG 1200 and GEOG 2306
- ii. GEOG 2356 or GEOG 2386
- iii. Three (3) credit hours from GEOG 2313, GEOG 2333 or GEOG 2343
- iv. Nine (9) other credit hours from Group B or C courses
- v. Six (6) other credit hours in GEOG

In addition to the programs cited above, information on graduate courses, may be found in *the Graduate Academic Calendar*.

Course Descriptions

1100 Global Perspectives on Land and Life (Group D)

3 credit hours

An introduction to the world and its major regions, focusing on traits, processes, and geographical patterns which give regions their distinctive character. These elements are derived from the complex interrelationships between human activity and the environment. Regional case studies may include: Europe, monsoon Asia, sub-Saharan Africa, the Middle East, and others.

1200 People, Place and Environment (Group D)

3 credit hours

This course introduces environmental geography through an integrative approach that explores how humans have impacted and been impacted by earth's physical systems. Human linkages with the atmosphere, biosphere, hydrosphere and solid earth will be explored. Emphasis will be placed on geographical problems and interaction between humans and environment of varying scales in order to better understand the complexity of our natural world. Where appropriate, case studies will be used to highlight specific methods of geographical analysis.

2306 Geospatial Concepts (Group C)

3 credit hours

Prerequisites: at least eighteen (18) credit hours

Students will develop literacy in core geospatial concepts and reinforce skills in numeracy that are critical for understanding and developing knowledge in geography. This course will also be of interest to students in disciplines related to Geography such as Anthropology, Biology, Environmental Science, and Geology.

2310 Geography of Canada (Group D)

3 credit hours

This course provides an overview of the physical, social, cultural and economic geographical characteristics of Canada taken as a whole and within its distinct regions. How humans affect and are affected by the physical environment will be a recurrent theme.

2312 Urban Geography (Group A)

3 credit hours

Prerequisite: GEOG 1100 or GEOG 1200

Students are provided with an overview of the processes and patterns of urban development and change presented through traditional and contemporary models, underscoring the complex interaction of historical, morphological, environmental, technological, social, political, and economic landscapes occurring throughout urban areas.

2313 Geomorphology (Group B) [GEOL 2373]

3 credit hours

Prerequisite: GEOG 1200 or GEOL 1200 or GEOL 1201

Geomorphology is the scientific study of landforms and landscapes. Students explore the basic principles of geomorphology, with an emphasis on Canadian landscapes. In lab exercises, students investigate and apply common techniques of geomorphological data collection and analysis.

Classes 2 hrs. and lab 2 hrs. a week

2315 The Oceans (Group D)

3 credit hours

Prerequisite: GEOG 1100 or GEOG 1200

A geographic study of the physical, environmental, economic and societal aspects of the world's oceans. Examination of the development of traditional and new uses of the oceans will focus attention on management issues. Regional case studies will be used to illustrate evolving concepts of oceanic management, including marine protected areas, territorial seas, and conflict of use issues.

2325 Sedimentology (Group B) [GEOL 2325]

3 credit hours

Prerequisite: GEOG 1200 or GEOL 1200 or GEOL 1201

2332 Global Cities (Group A)

3 credit hours

With over half the global population now urbanized, cities play an increasingly important role in the contemporary world. Comparisons are made of the structure and function of cities in each of the global regions, and the benefits and costs are considered for a rapidly urbanizing world.

2333 Biogeography (Group B)

3 credit hours

Prerequisite: GEOG 1200

A study of the spatial and temporal distribution of plants and animals on Earth. Local to global scale patterns of species distribution in terrestrial and marine environments are explained by examining physical controls, ecological principles, and human impacts. Concepts of speciation, evolution, migration and extinction are explored to examine species changes over space and time. Particular emphasis is placed on the role of humans as agents of change in biogeographical distributions.

Classes 2 hrs. and lab 2 hrs. a week

2341 Economic Geography (Group A)

3 credit hours

Prerequisites: GEOG 1100 or 1200

The economy is continuously changing, serving as a catalyst for restructuring and reorganizing. Students will be introduced to the key foundations of economic geography, global-local connections of economic change, patterns and processes of economic change, and economic actors and their interactions. The course is taught from a sustainable development perspective, exploring interactions between interconnected economic, social and ecological systems.

2343 Weather and Climate (Group B)

3 credit hours

Prerequisite: GEOG 1200

Students investigate weather and climate systems on Earth across a wide range of spatial and temporal scales. Topics include: the atmosphere, energy balances, microclimates, regional weather, and global climate processes. Applied meteorology and climatology will also be covered, including adaptation and mitigation strategies for severe events.

Classes 2 hrs. and lab 2 hrs. a week.

2349 Cultural Geography (Group A)

3 credit hours

Prerequisite: GEOG 1100 or GEOG 1200

Students are introduced to the core geographic concept of place and critically examine its role in shaping (while in turn being shaped by) significant dimensions of cultural identity, including nationalism, heritage, religion, language, race and ethnicity, gender, sexuality, fashion, food, music and dance.

2356 Inquiry and Explanation in Geography (Group C)

3 credit hours

Prerequisite: GEOG 1100 or GEOG 1200

Students consider the design, conduct, evaluations, explanation, and dissemination of geographic research. Topics include: formulating research plans, conducting literature reviews, developing hypotheses, planning data collection, presenting results, evaluating evidence, and drawing valid conclusions.

Classes 2 hrs. and seminar 2 hrs. a week.

2386 Introduction to Mapping and Geographical Information Systems (GIS) (Group C)

3 credit hours

Prerequisites: GEOG 2306

Students will be introduced to the critical design, compilation and construction of maps as a medium for communication and research. Issues surrounding data acquisition, online data sources and data quality will be explored. Fundamental concepts and components of geographical information systems (GIS) will be introduced

using an experiential learning framework, merging theory and practice.

Classes 2 hrs. and lab 2 hrs. a week.

2390 Geography of Ireland (Group D) [IRST 2391]
3 credit hours

Students examine the physical, social, cultural, economic, and political geography. Special emphasis will be given to the nature of past and present internal population movements and emigration patterns, regional variations in economic development, and the effects of membership in the European Union.

3004 Geography Practicum (Group D)
3 credit hours

Prerequisites: Registered major or honours students in Geography, B.E.S. or GEOL/GEOG combined program, and GEOG 2356

Students explore how geography and environmental studies is practiced and applied beyond the classroom. This course is based on the principle of experiential learning while examining how our discipline is applied in the real world. In addition to class discussions and guest lectures, practicum hours outside the classroom will be required with non-profit, for-profit, private sector or government agencies.

3100 Geography Field School (Group D)
3 credit hours

Prerequisite: GEOG 1100 and GEOG 1200, and 24 credit-hours, plus permission of the Department Chairperson

The physical and human geography of a selected Canadian region will be studied primarily in the field in this experiential learning course. Trip destinations may vary in different years according to faculty interests and collaborative opportunities that may arise. An integrative regional geography perspective will be taken. Students will be required to attend orientation and preparation classes before the trip, and to complete assigned course work after the trip.

3213 Applied Geomorphology (Group B)
3 credit hours

Prerequisites: GEOG 2313 [GEOL 2373] or GEOG 2333

Students consider geomorphological processes that are of societal significance, including habitat loss and hazards such as flooding, landslides, slope failure and coastal erosion. Approaches to mitigating and adapting to natural and human induced geomorphic changes will be explored using global case studies and local hands-on examples.

Classes 2 hrs. and lab 2 hrs. a week.

3302 The Built Environment (Group A)

3 credit hours

Prerequisites: One of: GEOG 2312, GEOG 2341, or GEOG 2349

Students explore cities; their physical components (e.g. streets, buildings, infrastructure, green spaces), techniques for their evaluation, and theories about how they develop. Students consider how urban landscape influences culture, environment, society, and the economy.

3304 Environmental Management (Group D)

3 credit hours

Prerequisite: GEOG 1100 or GEOG 1200, and at least 6 credit hours in GEOG courses at the 2000-level or above

This course provides a framework for effective identification, analysis, and management of environmental systems at different scales. It introduces concepts and methods designed to address real-world problems characterized by complexity, uncertainty, and change. Specific geographical environments and selected management issues (such as water pollution, soil erosion, and waste management), are examined, together with methods of environmental planning and impact assessment, including practical aspects of environmental management standards.

3311 Rural Geography (Group A)

3 credit hours

Prerequisite: One of GEOG 2312, GEOG 2341 or GEOG 2349

Examines the nature of rural settlement and land use in various cultural and technological settings. Emphasis is placed on agricultural patterns, and the changing organization of the countryside in modern societies. Topics include frontier settlement; land surveys; village morphology; land abandonment; farm enlargement and fragmentation; forestry, mining, and recreational uses; commuting; and conflicts over multiple land use and scenic preservation.

GEOG 3320 Geography of the North (Group D)

3 credit hours

Prerequisites: 24 credit hours

The North has become increasingly important in the globalized world. Students will identify and explore the Provincial North, the Territorial North, and international northern regions. Perspectives on major geographical challenges in the North are explored, such as the interactions of growing demand for natural resources, migration and mobility, globalization, and the influences of climate change.

3321 Economic Globalization: Geography of Manufacturing (Group A)

3 credit hours

Prerequisite: One of: GEOG 2312, GEOG 2341 or GEOG 2349

The course concerns the identification of key factors, and a discussion of their influence, in the geographical

distribution and location of manufacturing industries. Both location theory and case studies are used to analyze the location of these industries. Examples include iron and steel, motor vehicles, and oil refining.

3326 Statistical Methods in Geography (Group C)

3 credit hours

Prerequisite: GEOG 2306

Students are introduced to methods and problems in the collection, description, and analysis of geographic data. Included are descriptive and inferential statistics for spatial data, regression and correlation, analysis of patterns, and use of statistical software.

Classes 2 hrs. and lab 2 hrs. a week.

3329 Geographic Perspectives on Nature (Group A)

3 credit hours

Prerequisite: GEOG 1200 and one of GEOG 2315, GEOG 2333 or, GEOG 2349

Students explore historical and contemporary conceptions of nature to assess how they shape and are shaped by culturally produced 'natural' landscapes. Landscapes to be analyzed will include: wilderness reserves, rural countryside, suburban yards, city parks, urban gardens, and zoos.

3340 Geography of Nova Scotia (Group D) [ACST 3340]

3 credit hours

Prerequisite: at least twenty-four (24) credit-hours

This course explores the geographical diversity of the province, with particular emphasis on interrelationships between physical and human patterns. A section on the physical environment is followed by a discussion of settlement, cultural patterns, and economic development. Current issues of resource development, industrial reorganization, environmental management, and land use planning are addressed.

3350 Geography of Sub-Saharan Africa (Group D)

3 credit hours

Prerequisites: GEOG 1100 or GEOG 1200

Students are introduced to the geography of Africa south of the Sahara. Economic, historical, political, social, cultural and environmental issues will be examined in the large, diverse region. Students will gain an understanding of the spatial distribution of geographic and environmental phenomena both from a human, economic and physical perspective.

3351 Demography and Migration (Group A)

3 credit hours

Prerequisites: One of: GEOG 2312, GEOG 2341 or GEOG 2349

Changes in populations over time have dramatic implications for society and the environment. Students learn the key concepts, theories, and methods of demography. Students examine the current Canadian and

international demographic trends, utilizing data from agencies such as Statistics Canada and the OECD.

3356 Remote Sensing of the Environment (Group C)

3 credit hours

Prerequisite: GEOG 2306

Students study the acquisition, storage, manipulation, analysis, interpretation, and applications of remotely sensed digital imagery with an emphasis on remote sensing of terrestrial surfaces. A range of sensors and spatial scales of imagery are introduced. Image interpretation and processing skills are developed using current image processing software in the lab.

Classes 2 hrs. and lab 2 hrs. a week.

3380 Climate Change: Impacts, Vulnerability and Adaptation (Group D)

3 credit hours

Prerequisites: GEOG 1200 and one of GEOG 2312, 2341 or 2349

Students examine global, regional and sectoral impacts of climate change with an emphasis on geographical, bio-physical and socio-economic factors influencing risk and vulnerability. Students explore how individuals and communities can increase resilience through adaptation using regional and international examples.

3386 Concepts in Geographical Information Systems (GIS) Analysis (Group C)

3 credit hours

Prerequisite: GEOG 2386 or GEOL 3305

Students focus on applied geospatial analyses using ArcGIS and associated extensions. Topics include spatial analysis and geostatistics, 3D surface modelling, visualization, network analysis, predictive modelling and multiple criteria evaluations. Examples will be drawn from earth and environment science, geography, environmental studies, anthropology and business.

Classes 2 hrs. and lab 2 hrs. a week.

3416 Qualitative Research Methods in Geography (Group C)

3 credit hours

Prerequisites: GEOG 2356

Students are introduced to major qualitative research methods utilized by geographers. Topics include: data collection (interviewing, participant observation, textual analysis, focus groups, photovoice) and data analysis.

3433 Fluvial Geomorphology (Group B)

3 credit hours

Prerequisite: GEOG 2313 [GEOL 2373] or GEOL 2325 [GEOG 2325]

Students examine processes and landforms associated with rivers. Topics include drainage basin controls, channel processes and morphology, erosional and depositional fluvial landforms, and evolution of fluvial landscapes. Classes 2 hrs. and lab 2 hrs. a week.

3454 Bay of Fundy: Environments and Issues (Group D)

3 credit hours

Prerequisite: GEOG 1100 and GEOG 1200 and 24 credit-hours, plus permission of the Department Chairperson

In this interdisciplinary field course students examine physical, biological and human environments, processes and issues in the Bay of Fundy region from both a historical and a contemporary view. Topics include physical and biological processes such as tides and biological productivity, ecosystems such as tidal flats and salt marshes, settlement patterns, and resource use. Emphasis is placed on current issues and solutions.

3553 Arctic and Alpine Landscapes (Group B)

3 credit hours

Prerequisites: GEOG 2313 [GEOL 2373] or GEOG 2333

The physical geography of Arctic and alpine landscapes will be investigated from an integrated perspective. The objective will be to understand controls on biophysical processes and patterns in these environments including sensitivities to, and the effects of, changing climates. Selected Canadian and global locations will be studied. Classes 2 hrs. and lab 2 hrs. a week.

4100 Geography International Field School

3 credit hours

Prerequisites: GEOG 1100; GEOG 1200; twenty-hour (24) credit hours and permission of the Departmental Chairperson.

Students study the physical and human geography of selected international regions primarily in the field in this experiential learning course. Trip destinations may vary in different years according to faculty interests and collaborative opportunities that may arise. Student take an integrative regional geography perspective. Students are required to attend orientation and preparation classes before the trip, and to complete assigned course work after the trip.

4406 Capstone Seminar in Geography (Group D)

3 credit hours

Prerequisite: Registered major or honours students in Geography, the Bachelor of Environmental Studies program, or the Geology/Geography combined program, with at least sixty (60) university credit-hours

Students analyze major philosophical and methodological developments that have shaped modern geography in order to explore areas of common ground and divergence within our broad-ranging discipline. Throughout the term students address two fundamental questions: what defines the academic discipline of geography and how is geographical expertise applied beyond academia?

4412 Urban History and Preservation (Group A)

3 credit hours

Prerequisite: Two of: Geog 2312, GEOG 2341 or GEOG 2349

Students examine the evolution of cities from antiquity through the middle-twentieth century, including their morphological and functional characteristics. A focus is placed on the value of historical landscapes in today's urban fabric, and techniques for their protection and revitalization.

4413 Coastal Geomorphology (Group B) [GEOL 4476]

3 credit hours

Prerequisite: GEOG 2313 [GEOL 2373] or GEOG 2325 [GEOG 2325]

Students examine both the physical processes that operate in the coastal zone, at a range of spatial and temporal scales, and the resulting landforms. The actions of waves, tides, currents, wind, sea level changes and humans in the formation of coastal features are considered. Additional topics include the long-term development and classification of coasts.

Classes 2 hrs. and lab 2 hrs. a week. Some field work may be required.

4423 Glaciers and Glaciation (Group B) [GEOL 4475]

3 credit hours

Prerequisite: GEOG 2313 [GEOL 2373] or GEOG 2325 [GEOG 2325]

Glaciers have profound effects on landscapes and are an important component of global physical systems. Glaciology, causes and records of fluctuations in glacial coverage, glacial processes, glacial landforms, and the legacy of past glacial activity on earth will be examined. Broader impacts of glacial activity and changes on humans and the environment will also be investigated. Classes 2 hrs. and lab 2 hrs. a week.

4424 Natural Resource Management (Group D) [ENVS 4450]

3 credit hours

Prerequisite: GEOG 3304 or ENVS 2300 and one of MATH 1207 or GEOG 3326 or BIOL 2308

4431 Community and Regional Development (Group A)

3 credit hours

Prerequisites: Two of: GEOG 2312, GEOG 2341 or GEOG 2349

Students are introduced to community and regional development theories, techniques, and approaches. Geographical perspectives of space, place, and scale will guide the discussions of community and regional development in the Canadian context. The course will blend lectures and applied research initiatives to provide students the opportunities to apply their knowledge to 'real-world' situations.

4432 Social Geography of the City (Group A)

3 credit hours

Prerequisite: Two of: GEOG 2312, GEOG 2341 or GEOG 2349

The location of residential areas in cities, and the differentiation and segregation of those areas by income,

occupation, race, ethnic status, and religion are examined. Emphasis is placed on the historical evolution of social patterns, on the link between social areas and the physical fabric of the city, on competition between groups for amenity locations and facilities, and on the conflicts over noxious facilities.

4434 Watershed Management (Group D)

3 credit hours

Prerequisite: GEOG 3304 and GEOG 2313 [GEOL 2373] or GEOL 3340

Students explore the concept of integrated watershed management. This will include assessments of biophysical freshwater systems, implications for natural resource development and land use on water quality and quantity, as well as institutional arrangements and the role of stakeholder involvement in watershed-scale decision-making. Field trips to local watersheds will be incorporated into the course syllabus.

4442 Urban Planning (Group A)

3 credit hours

Prerequisite: Two of: GEOG 2312, GEOG 2341 or GEOG 2349

The physical and environmental planning of urban areas, with special reference to current practice in Nova Scotia are examined. Topics include the emergence of modern town planning, the Planning Act, planning process, structure plans, general and partial urban allocation models, municipal plans, zoning, subdivision control, site planning, urban renewal, and new towns. The costs and benefits of planning are appraised.

4443 Natural Hazards (Group B)

3 credit hours

Prerequisite: GEOG 2313 [GEOL 2373] or GEOG 2343 and at least 6 credits hours in GEOG courses at 3000 level or above

Natural hazards as a part of human-environment relations characterized by changing geographical patterns are examined. Earthquakes, volcanic eruptions, landslides, severe weather, floods, coastal hazards, extraterrestrial body impacts are analyzed in a multi-scale perspective, along with their functional relationships. The human impact of natural hazards is discussed, with an emphasis on environmental perception, public awareness and action. Possibilities of forecasting are examined, as well as risk assessment and mitigation strategies.

4444 Environmental Pattern Analysis and Modeling [ENVS 4460] (Group C)

3 credit hours

Prerequisites: Sixty (60) credit hours, including one of GEOG 3430 or GEOG 3004

4449 Tourist Geographies (Group A)

3 credit hours

Prerequisite: Two of: GEOG 2312, GEOG 2341 or GEOG 2349

Students investigate why and how people travel, in the past and today, before examining several prominent tourist landscapes to understand the particular geographies that both shape and are shaped by the tourist imagination. Students will also address ethical questions associated with tourism.

4459 The Power of Maps: A Social History of Cartography (Group A)

3 credit hours

Prerequisite: GEOG 2386

Maps reveal a great deal about the worlds of their makers, communicating the technical proficiencies, economic structures, social relations, political objectives and prevailing belief systems of the societies that call them forth. Students critically examine the map-society relationship in selected historical contexts, as well as in our contemporary society.

4465 Advanced Sedimentology (Group B) [GEOL 4465]

3 credit hours

Prerequisite: GEOL 2325 [GEOG 2325] and GEOL 3326

4496 Applications in Geographical Information Systems (Group C)

3 credit hours

Prerequisite: GEOG 3356 or GEOG 3386

This course allows students to develop further their understanding of geomatics and its applications. Students focus on the use of either geographic information systems (GIS) or remote sensing to address practical problems in areas such as resource management, marketing, regional planning, natural hazards and geomorphology. Students will undertake a major research project using various GIS analytical functions, and develop skills relating to data creation, manipulation, quality assessment and presentation.

Classes 2 hrs. and lab 2 hrs. a week.

4526 Honours Thesis (Group D)

6 credit hours

Prerequisite: Honours standing in Geography

The Honours thesis requires an independent research project to be completed under the supervision of a faculty advisor. The advisor will guide the student in the formulation of the research proposal, methodology to be followed, the collection and analysis of data, and in the writing of the thesis.

4800 – 4825 Selected Topics in Geography

6 credit hours

Prerequisite: Vary depending on the nature of the Selected Topic

These courses will cover topics not represented by other courses in Geography. The subject matter will be selected by the instructor. If appropriate to the material, a class and lab mode of presentation may be used instead of classes alone.

4826 – 4849 Selected Topics in Geography

3 credit hours

Prerequisite: Vary depending on the nature of the Selected Topic

These courses will cover topics not represented by other courses in Geography. The subject matter will be selected by the instructor. If appropriate to the material, a class and

lab mode of presentation may be used instead of classes alone.

4850 – 4875 Directed Study (Group D)

3 credit hours

4876 - 4899 Directed Study (Group D)

6 credit hours

Geology (GEOL)

Co-Chairpersons	J. Hanley and P. Jutras
Professors	P. Jutras, V. Owen, G. Pe-Piper
Associate Professors	J. Hanley, G. Ventura (Canada Research Chair in Petroleum Systems, Geochemistry and Reservoir Characterization)
Assistant Professors	A. MacRae
Adjunct Professors	D. Ames, S. Gleeson, R. Moretti, D. Piper
Professor Emeritus	J. Dostal

We are directly dependent on the Earth for our survival. Geology is the study of the Earth, its materials, the processes that affect its surface and interior, and the history of change that it has undergone. For students enrolled in the Bachelor of Science degree program with a Concentration, Major, or Honours in Geology, the Department offers a full program of courses. Many of these courses may also be taken by students majoring in other science subjects. A combined geology/geography program emphasizes environmental aspects of geology and a program combining geology and business studies emphasize the economic aspects of the Earth. In addition, a number of courses are offered for non-science students, emphasizing global aspects of geology, Earth history, and the interactions between the Earth and human society.

Science students interested in geology, including those who are planning to pursue the double majors and honours programs in geology, should take GEOL 1200 and GEOL 1201. This course provides a broad survey of the discipline, with practical experience provided through labs and field trips. Courses in mineralogy (GEOL 2301, GEOL 2302) and the sedimentary environments (GEOL 2325) are also recommended as supporting science subjects for students majoring in other sciences.

GEOL 1202, 1203, 1206, 1207, 1208 and GEOL 1210 are designed chiefly for students in Commerce and Arts, including Atlantic Canada Studies. Of these, only GEOL 1206, 1207 and 1208 can be used as Science credits. In exceptional cases where a student has taken GEOL 1202 and GEOL 1203 (previously GEOL 204.0) with high standing, those courses may, with the permission of the Department, be accepted in the Geology Major or Honours program in lieu of GEOL 1200 and GEOL 1201.

Students in the Geology Major and Honours programs should seek the advice of the Department as to their elective and supporting courses. Year 4 students are

encouraged to participate in the research projects being carried out in the Department. Under special circumstances, some prerequisites for 3000 and 4000-level courses may be waived with the permission of the Department.

1. Geology Major - Requirements

The requirements for the degree of Bachelor of Science with Major apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Major, in Section Three. The specific list of forty-eight (48) required credit hours in the Major subject used to satisfy 6(d) is provided below:

Mandatory thirty-nine (39) credit hours in core program courses:

GEOL 1200	Understanding the Earth
GEOL 1201	The Dynamic Earth
GEOL 2301	Mineralogy
GEOL 2302	Optical Mineralogy
GEOL 2305	Geophysics
GEOL 2325	Sedimentology
GEOL 3300	Field Methods
GEOL 3312	Igneous Petrology
GEOL 3313	Metamorphic Petrology
GEOL 3323	Paleontology: History of Life
GEOL 3326	Sedimentary Petrology and Stratigraphy
GEOL 3413	Structural Geology
GEOL 3453	Principles of Geochemistry

An additional three (3) credit hours, from the following list:

GEOL 4441	Mineral Resources
GEOL 4466	Petroleum Geology

An additional six (6) credit hours from the following:

GEOL 3305	Geomatics
GEOL 3340	Principles of Hydrogeology
GEOL 3410	Environmental Impact Assessment
GEOL 3454	Applied Geochemistry
GEOL 4300	Field Geology of Eastern Canada
GEOL 4400	International Field Camp
GEOL 4414	Tectonics
GEOL 4423	Advanced Paleontology
GEOL 4442	Economic Geology Field School
GEOL 4450	Advanced Igneous and Metamorphic Petrology
GEOL 4465	Advanced Sedimentology
GEOL 4800-4899	Special Topics and Directed Study

The suggested sequence of courses for years 1 and 2 is available online on the Faculty of Science website listings for Program Requirement Tables. Students should consult with a Science Advisor or the Department Chairperson for course selections and the suggested best sequence of courses for years 3 and 4.

2. Geology Major for Professional Registration Qualification

The Geoscience Profession Act was proclaimed in Nova Scotia in March 2003. This Act requires that one be a member in good standing of The Association of Professional Geoscientists of Nova Scotia (or another provincial counterpart) in order to work in geoscience-related fields in this province. For the 2014-2017 period, the requirements for professional registration are summarized by the Canadian Council of Professional Geoscientists (CCPG) at: geoscientistscanada.ca

Geology Major students who wish to qualify for professional registration should complete the following program which combines all elements of the GEOL Major plus those which satisfy the Canadian Council of Professional Geoscientists (CCPG) knowledge requirements.

Mandatory forty-five (45) credit hours in core program

GEOL 1200	Understanding the Earth
GEOL 1201	The Dynamic Earth
GEOL 2301	Mineralogy
GEOL 2302	Optical Mineralogy
GEOL 2305	Geophysics
GEOL 2325	Sedimentology
GEOL 3300	Field Methods
GEOL 3312	Igneous Petrology
GEOL 3313	Metamorphic Petrology
GEOL 3323	Paleontology: History of Life
GEOL 3326	Sedimentary Petrology and Stratigraphy
GEOL 3413	Structural Geology
GEOL 3453	Principles of Geochemistry
GEOL 4441	Mineral Resources
GEOL 4466	Petroleum Geology

An additional fifteen (15) credit hours (five (5) courses) from the following (including the above list):

GEOL 3305	Geomatics
GEOL 3340	Principles of Hydrogeology
GEOL 3410	Environmental Impact Assessment
GEOL 3454	Applied Geochemistry
GEOL 4300	Field Geology of Eastern Canada
GEOL 4400	International Field Camp
GEOL 4414	Tectonics
GEOL 4423	Advanced Paleontology
GEOL 4442	Economic Geology Field School
GEOL 4450	Advanced Igneous and Metamorphic Petrology
GEOL 4465	Advanced Sedimentology
GEOL 4550	Honours Project * (6 credit hours)
GEOL 4800-4899	Special Topics and Directed Study

*For students admitted to the honours program only.

Mandatory science foundation requirements:

Math 1250 Calculus for Life Sciences or MATH 1210 Introductory Calculus I; CHEM 1210 General Chemistry I; PHYS 1000 Physics for Life Sciences or PHYS 1210 University Physics I.

An additional eighteen (18) credit hours of foundational science courses in the following subject areas: MATH, PHYS, CHEM, CSCI, BIOL; with no more than six (6) credit hours in any one subject area, and at least three (3) credit hours in MATH or CSCI.

The suggested sequence of courses for years 1 and 2 is available online on the Faculty of Science website listings for Program Requirement Tables. Students should consult with a Science Advisor or the Department Chairperson for course selections and the suggested best sequence of courses for years 3 and 4.

2. Geology Honours - Requirements

The requirements for the degree of Bachelor of Science with honours apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Honours, in Section Three. The specific list of required credit hours used to satisfy 11 (a) include:

- Mandatory core courses for the Major;
- GEOL 4550 (Students must secure a supervisor for the honours project before applying to the honours program);
- Sufficient GEOL courses for a minimum of sixty (60) credit hours, of which only six (6) credit hours may be at the 1000-level.

3. Double Major and Double Honours - Requirements

Students may pursue a double major in Geology and another science subject, as outlined in Section Three of this *Academic Calendar* in the Faculty of Science pages. Students may also pursue a double honours in Geology and another science subject, as outlined in Section Three of this *Calendar*.

Students taking a double major are required to take at least thirty-six (36) credit hours in geology from the following list, and students taking a double honours are required to take at least forty-two (42) credit hours from the same list: ** The course listing that follows has three courses added to it: GEOL 3373 Geomorphology; GEOL 4300 Field Geology of Eastern Canada; and GEOL 4400 International Field Camp:

GEOL 1200	Understanding the Earth
GEOL 1201	The Dynamic Earth
GEOL 2301	Mineralogy
GEOL 2302	Optical Mineralogy
GEOL 2305	Geophysics
GEOL 2325	Sedimentology or GEOL 3373
GEOL 3300	Field Methods
GEOL 3305	Geomatics
GEOL 3312	Igneous Petrology
GEOL 3313	Metamorphic Petrology
GEOL 3323	Palaeontology: History of Life

GEOL 3326	Sedimentary Petrology and Stratigraphy
GEOL 3340	Principles of Hydrogeology
GEOL 3373	Geomorphology
GEOL 3410	Environmental Impact Assessment
GEOL 3413	Structural Geology
GEOL 3453	Principles of Geochemistry
GEOL 3454	Applied Geochemistry
GEOL 4300	Field Geology of Eastern Canada
GEOL 4400	International Field Camp
GEOL 4414	Tectonics
GEOL 4423	Advanced Paleontology
GEOL 4441	Mineral Resources
GEOL 4442	Economic Geology Field School
GEOL 4450	Advanced Igneous and Metamorphic Petrology
GEOL 4465	Advanced Sedimentology
GEOL 4466	Petroleum Geology
GEOL 4475	Glaciers and Glaciation

4. Geology/Geography Combined Programs

a. Geology/Geography Major Program (Bachelor of Science)

i. At least thirty-six (36) credit hours from the list of geology courses under 'Double Major and Honours', above.

ii. At least thirty-six (36) geography credit hours including:

GEOG 1100	Global Perspectives on Land and Life
GEOG 1200	People, Place and Environment
GEOG 2306	Geospatial Concepts
GEOG 2316	Map and Image Interpretation
GEOG 2325	*Sedimentology [GEOL 2325]
GEOG 2313	Geomorphology [GEOL 2373]
GEOG 2386	Introduction to Mapping and GIS

iii. At least twelve (12) credit hours from:

GEOG 2305	The Oceans: A Physical Geography
GEOG 2333	Biogeography
GEOG 3343	Weather and Climate
GEOG 4413	Coastal Geomorphology
GEOG 4423	Glaciers and Glaciation
GEOG 4433	Fluvial Geomorphology
GEOG 4443	Natural Hazards

Six (6) additional credit hours in geography from Group B or C courses.

b. Geology/Geography Honours Program (Bachelor of Science: Honours)

In addition to the above requirements, Honours students must complete:

- GEOL 4550 Honours Project or GEOG 4526 Honours Thesis;
- six (6) additional credit hours in geology from the list of geology courses under "Double Major and Honours" above; and
- GEOG 4406 Seminar in Theoretical Geography and GEOG 4416 Seminar in Applied Geography.

In the Honours Bachelor of Science geology/geography program, topics for Honours projects should be approved

by both Departments and may be carried out in either Department.

5. Geology/Business Studies Combined Programs

The Department of Geology and the Faculty of Commerce offer a double major/Honours science degree combining a major/Honours program in geology with a major program of business studies in the Faculty of Commerce.

This program offers Bachelor of Science major and Bachelor of Science Honours degrees, under the general requirements of the Faculty of Science. For a combined major degree, students will be required to take a minimum of forty-two (42) credit hours in the Faculty of Commerce in addition to at least thirty-six (36) credit hours in geology. In the Honours program, a thesis on a field interrelating the two disciplines will be required. Students enrolled in the combined geology/business studies major/Honours may also pursue a co-op option in this dual program. The program appeals to geology students with an interest in the business-related aspects of their major. The geology/business studies major program requires a minimum grade point average (GPA) of 2.20 in all Geology and commerce courses while the geology/business studies Honours program requires (a) a minimum grade of C in all geology and commerce courses; and (b) a minimum GPA of 3.00 in these same courses.

The following courses are required for the Geology/Business Studies Major (B.Sc.):

a. Commerce Faculty Requirements [total of forty-two (42) credit hours]

ACCT 2241	Introductory Accounting I
ACCT 2242	Introductory Accounting II
ACCT 3332	Planning and Control
CMLW 2201	Legal Aspects of Business
COMM 2293	Communications
ECON 1201	Principles of Economics: Micro
ECON 1202	Principles of Economics: Macro
FINA 2360	Business Finance I
FINA 3361	Business Finance II
MGMT 1281	Introduction to Business Management
MGMT 2383	Micro Organizational Behaviour
MGMT 2384	Macro Organizational Behaviour
MGMT 4489	Strategic Management
MKTG 2270	Introduction to Marketing

b. Geology Requirements [at least thirty-six (36) credit hours] from:

GEOL 1200	Understanding the Earth
GEOL 1201	The Dynamic Earth
GEOL 1208	Environmental Geology
GEOL 2301	Mineralogy
GEOL 2302	Optical Mineralogy
GEOL 2305	Geophysics
GEOL 2325	Sedimentology
GEOL 3300	Field Methods
GEOL 3305	Geomatics
GEOL 3312	Igneous Petrology
GEOL 3313	Metamorphic Petrology
GEOL 3323	Palaeontology: History of Life
GEOL 3340	Principles of Hydrogeology

GEOL 3373	Geomorphology
GEOL 3410	Environmental Impact Assessment
GEOL 3413	Structural Geology
GEOL 3453	Principles of Geochemistry
GEOL 3454	Applied Geochemistry
GEOL 4300	Field Geology of Eastern Canada
GEOL 4400	International Field Camp
GEOL 4414	Tectonics
GEOL 4423	Advanced Paleontology
GEOL 4441	Mineral Resources
GEOL 4442	Economic Geology Field School
GEOL 4450	Advanced Igneous and Metamorphic Petrology
GEOL 4465	Advanced Sedimentology
GEOL 4466	Petroleum Geology
GEOL 4475	Glaciers and Glaciation

c. Other Requirements

- ENGL 1205 and three (3) credit hours in humanities.
- MATH requirement (see Faculty of Science regulations, Section 3 of this *Academic Calendar*).
- twelve (12) credit hours in science other than Geology, e.g., Biology, Psychology, Chemistry, Physics, and Mathematics excluding BIOL 3308.
- three (3) credit hours in statistics that covers probability theory including MGSC 2207, GEOG 3326, BIOL 3308 and ECON 3303.
- six (6) credit hours from Faculty of Arts offering including GEOG 3326 and ECON 3303.
- nine (9) credit hours in electives from any Faculty.

Notes:

- Students must take FINA 2361, MKTG 2270 and MGMT 2384 before registering for MGMT 4489. The other prerequisites for this course are waived for students in this combined program.
- Students must register no later than the beginning of Year 2 in the science program and will be under the general requirements of the Faculty of Science.

In addition to the above requirements, Geology/Business Studies Honours students must complete GEOL 4550 Honours Project as one of the Geology requirements.

6. Cooperative Education Programs

a. Cooperative Education in Geology

This program, which is available at both the major and Honours level, integrates on-the-job experience and academic studies. Upon completion of one of the Cooperative Education programs, the student receives the Bachelor of Science degree in geology, at the major or Honours level, with the added qualification of “Cooperative Education”.

Further details and regulations on the Cooperative Education program are found in the Faculty of Science listing in Section 3 of this Calendar.

b. Combined Cooperative Education in Geology/Geography

The students enrolled in the combined geology/geography major/Honours may also pursue a Co-op option in this dual program. Application to and completion of this combined

option is the same as those for other Science Co-op major programs.

Further details and regulations on the Cooperative Education program are found in the Faculty of Science listing in Section 3 of this Calendar.

c. Combined Cooperative Education Program in General Business Studies/Geology

The students enrolled in the combined geology/business studies major/Honours programs may pursue a Co-op option in these dual programs. Applications to and completion of this combined option is the same as those for other Science Co-op major/Honours programs.

7. Minor in Geology - Requirements

It is possible to combine a minor in Geology with a major in another discipline within or outside the Faculty of Science. To obtain a minor in Geology, students must complete thirty (30) credit hours in GEOL courses, according to 9(b) in Section Three of this *Calendar*, including GEOL 1200 and GEOL 1201, with no more than twelve (12) credit hours at the 1000-level.

8. Concentration in Geology – Requirements:

Students may choose to obtain a B.Sc. General with a Concentration in Geology, according to the requirements detailed in Section Three of this *Calendar*. Students must complete thirty (30) credit hours in GEOL courses with no more than twelve (12) credit hours at the 1000-level.

Course Descriptions

1200 Understanding the Earth

3 credit hours

Everything known about the history of the solid Earth and its transformations has been determined from studying minerals, rocks, soils, fossils, and geological structures. Students study Earth materials and structures, and are introduced to some of the processes (e.g., plate tectonics, rock- and ore-forming processes, metamorphism) that shape our planet. The lab component includes field study settings.

Classes 3 hrs. and lab 3 hrs. a week.

1201 The Dynamic Earth

3 credit hours

Prerequisite: GEOL 1200

Earth is a dynamic and evolving planet. In constant transformation since the beginning. Using examples from Atlantic Canada, students examine surface and subsurface processes (e.g., weathering and erosion involving gravity, wind, waves, river currents and ice; groundwater flow; tectonics), and consider geological time, history, resources and hazards.

Classes 3 hrs. and lab 3 hrs. a week.

1202 Planet Earth: Atlantic Canada Perspective

3 credit hours

Why is the Atlantic Ocean getting wider? Where in Atlantic Canada are there remnants of huge volcanic explosions and lava flows? How did a fault as big as the San Andreas cut through Nova Scotia? This course will provide an understanding of the Earth and the processes which affect it, using examples drawn from the geology of our region. You will study plate tectonics, learn to recognize and interpret Earth materials, and understand their impact on Atlantic Canada. Sections of this course may be offered via world-wide web. This course is intended mainly for non-science students including those in Atlantic Canada Studies.

Note: Please note that this course may not be used by B.Sc. Students to satisfy the requirement of a science elective under regulations 3.e., 6.e., 10.c., and 12.b. for B.Sc. degrees. This course may not be taken concurrently or subsequently to GEOL 1200 or 1201.

1203 Earth History: Atlantic Canada Perspective

3 credit hours

What was the origin of the Earth and when did life develop? When did dinosaurs and other fossil groups appear in our region, and how did they disappear? How have ancient deserts, rivers, oceans, and ice ages influenced our landscape? You will trace four billion years of Earth history using examples from the rock and fossil record of Atlantic Canada. Sections of this course may be offered via world-wide web. This course is intended mainly for non-science students including those in Atlantic Canada Studies.

Note: Please note that this course may not be used by B.Sc. Students to satisfy the requirement of a science elective under regulations 3.e., 6.e., 10.c., and 12.b. for B.Sc. degrees. This course may not be taken concurrently or subsequently to GEOL 1200 or 1201.

1206 Global Change

3 credit hours

This course examines global changes in the Earth's crust, oceans, biota and atmosphere caused by natural processes and human activity. Topics covered include the reconstruction of ancient environments, some of which were dramatically changed by meteorite impacts, volcanic activity and glaciation, and the evaluation of accelerating environmental change caused by phenomena such as ozone depletion and greenhouse gas emissions.

1207 Environment, Radiation and Society

3 credit hours

Radioactivity has an impact on our society and environment. Radiation given off during the process of radioactive decay is harmful, but is accompanied by the release of energy that can be harvested. The course reviews radioactive decay and explores geological sources of radiation, uranium deposits and mining, economics of nuclear power and the geological aspects of radioactive waste disposal. The course will foster an understanding of issues that surround the use of nuclear technology in our society.

1208 Environmental Geology: Atlantic Canada Perspective

3 credit hours

This course examines geological principles that lie behind environmental problems facing society. Topics considered may include geological hazards such as volcanoes, earthquakes, slope instability, and pollution and waste disposal, as well as energy and mineral resources, and the quality of water. The course will include examples of environmental geology in the Atlantic Provinces.

1210 Dinosaurs and Their World

3 credit hours

This course focuses on dinosaurs and the world in which they flourished for 135 million years, up to the time of their (near) extinction. Spectacular and sometimes controversial evidence indicates how dinosaurs and other creatures lived, died, and were preserved as fossils over geological time. Nova Scotian dinosaur localities will receive special attention in the class.

Note: Please note that this course may not be used by B.Sc. Students to satisfy the requirement of a science elective under regulations 3.e., 6.e., 10.c., and 12.b. for B.Sc. degrees.

2301 Mineralogy

3 credit hours

Prerequisite: GEOL 1200 (may be taken concurrently)

Mineralogy is a systematic study of the major mineral groups, including their crystal structure, chemical composition, physical properties, identification and practical use.

Classes 3 hrs. and lab 3 hrs. a week.

2302 Optical Mineralogy

3 credit hours

Prerequisite: GEOL 2301

Optical properties of minerals. Determinative mineralogy with emphasis on the optical methods of mineral identification. Petrography of the more common rocks.

Classes 3 hrs. and lab 3 hrs. a week.

2305 Geophysics

3 credit hours

Prerequisites: GEOL 1200 and 1201

The physics of the Earth, including rotation, gravity, seismology and internal structure, magnetic and electrical properties, radioactivity, and the Earth's heat. Geophysical exploration of the Earth's crust, including seismic refraction, seismic reflection, magnetic, gravity and electrical methods.

Classes 3 hrs. and lab 3 hrs. a week.

2325 Sedimentology [GEOG 2325]

3 credit hours

Prerequisite: GEOG 1200 or GEOL 1200 or GEOL 1201

Weathering and the origin of sedimentary materials. Introduction to sediments and sedimentary rocks. Processes

of sedimentation and the origin of sedimentary structures. Interpretation of clastic and carbonate sedimentary rocks in the light of comparison with modern environments in non-marine, marginal marine and marine settings.

Classes 3 hrs. and lab 3 hrs. a week.

2373 Geomorphology (Group B) [GEOG 2313]

3 credit hours

Prerequisite: GEOG 1200 or GEOL 1200 or GEOL 1201

3300 Field Methods

3 credit hours

Prerequisites: GEOL 1200, 1201, 2325 and permission of the instructor

This course introduces the student to basic field techniques used by geologists. Field observations and measurements collected during a 10 day field camp are summarized by the student as a series of reports.

Lab 3 hrs. a week plus field work.

NOTE: This course involves a summer field school followed by labs 3 hrs a week in the fall term.

3305 Geomatics

3 credit hours

Prerequisite: GEOL 3300

Students are introduced to the application of geographic information systems (GIS) to geological problems. Topics include projections, coordinate systems, relational databases and data organization. Data will be drawn from multiple sources, including online databases and published map data. Emphasis will be on data collection, organization, and manipulation to illustrate structural and field relationships of bedrock geology. Basic field mapping and computer skills are required.

3312 Igneous Petrology

3 credit hours

Prerequisite: GEOL 2302.

This course emphasises the mineralogical and chemical characteristics of igneous rocks, and their classification, petrography, and tectonic setting. The processes responsible for the evolution of diverse igneous rock associations are also considered. Laboratory work involves the study of igneous rocks in hand sample and thin section.

Classes 3 hrs. and lab 3 hrs. a week.

3313 Metamorphic Petrology

3 credit hours

Prerequisite: GEOL 2302.

This course introduces aspects of the description and interpretation of metamorphic rocks by citing the effects of the progressive metamorphism of mafic, pelitic and carbonate rocks. Other topics include the use of composition-assemblage diagrams, methods of quantitative geothermobarometry, and the interpretation of pressure-temperature-time trajectories for metamorphic rocks.

Laboratory work involves the study of metamorphic rocks in hand sample and thin section.

Classes 3 hrs. and lab 3 hrs. a week.

3323 Palaeontology: History of Life

3 credit hours

Prerequisite: one of GEOL 1200, GEOL 1201, GEOL 1202, GEOL 1208, BIOL 1201, BIOL1202

An account of the 3800 million-year history of life on Earth, including theories of the origin of life, and modes of preservation of organisms as fossils, and the practical use of fossils for geological age, paleogeographic, and paleoenvironment determinations. The course covers the expression of biological evolution in the fossil record, and the major patterns and crises in the history of life, such as mass extinctions. Although the main focus is on the paleontology of invertebrate macrofossils, there will be some coverage of fossil plants, vertebrates, and microfossils.

Classes 3 hrs. and lab 3 hrs. a week.

3326 Sedimentary Petrology and Stratigraphy

3 credit hours

Prerequisite: GEOL 2302 and 2325 (which may be taken concurrently).

Composition, provenance, and diagenesis of clastic sedimentary rocks, including conglomerates, sandstones and shales. Components and diagenesis of the main classes of non-clastic sedimentary rocks including carbonates, evaporites, siliceous and iron-rich sediments. Stratigraphy: correlation and the definition of stratigraphic units in outcrop and in the subsurface. Unconformities, sequences, sea-level change, and the interpretation of the stratigraphic record.

Classes 3 hrs. and lab 3 hrs. a week.

3340 Principles of Hydrogeology [ENVS 3340]

3 credit hours

Prerequisite: GEOL 1200, and GEOL 1201.

Students are introduced to the essential concepts of groundwater flow and wells. Topics include: flow through varying geologic material, water resources management, baseline groundwater quality, contamination of sub-surface environments, and an introduction to quantitative methods. Students will learn to recognize and interpret groundwater flow and chemical data, and have an opportunity to apply this knowledge via course work, laboratory exercises and field work.

Classes 3 hrs. and lab 3 hrs. a week.

3373 Geomorphology [GEOG 3313]

3 credit hours

Prerequisite: GEOL 1200 or GEOL 1201.

The study of geomorphological processes and related landforms, with an emphasis on fluvial activity. Processes of weathering, soil formation, slope development and river action will be discussed. Laboratory work will include

methods of field and data interpretation, soil analysis, sediment analysis and geomorphological mapping.

Classes 2 hrs. and lab 2 hrs. a week. Some field work may be required.

3410 Environmental Impact Assessment [ENVS 3410]

3 credit hours

Prerequisite: 45 credit hours, including one of ENVS 1203, 2200, 2300 or 2310.

This course describes the legislative background and techniques for the prediction of impacts on biophysical and socio-economic environments. This course will cover screening, scoping, baseline studies, impact prediction, mitigation, monitoring and auditing.

Classes 3 hrs. and lab 3 hrs.

3413 Structural Geology

3 credit hours

Prerequisite: GEOL 1200 and 1201

Structures produced by deformation in the Earth's crust, including fabrics, folds, faults, and shear zones. Geometric, kinematic, and dynamic analysis of structures. Use of geometric and stereographic projection techniques in the interpretation of geological structures and geological maps. Introduction to stress and strain. Structures characteristic of selected tectonic environments, including rifts, thrust belts, and zones of strike-slip movement.

Classes 3 hrs. and lab 3 hrs. a week.

3453 Principles of Geochemistry

3 credit hours

Prerequisite: GEOL 1200, GEOL 1201 and CHEM 1210

This course exposes students to the application of chemical thermodynamics in the prediction of geochemical processes in surficial, hydrothermal systems and igneous environments both on Earth and in the rest of the Solar system. Mineral formation and mineral stability are examined through the construction and use of phase and mineral stability diagrams for aqueous environments. The geochemical basis for the origins of life on Earth, the carbon cycle, stable and radiogenic isotopes, and the evolution of the most important reservoirs of Earth materials are evaluated through problem sets and laboratories.

Classes 3 hrs. and lab 3 hrs. a week.

Note: To fulfill the CCPG requirements for professional geologists, this course may be used as either a geosciences course or as a second chemistry course.

3454 Applied Geochemistry

3 credit hours

Prerequisite: GEOL 1200, GEOL 1201, GEOL 2301 and GEOL 2302 (the latter can be taken concurrently)

Students examine geochemical sampling, instrumental analytical methods, statistical evaluation of real

geochemical data, and methods of reporting and quality control. Students are introduced to novel methods for describing the chemical composition of Earth materials (fluid and melt inclusion microanalysis, infrared spectroscopic mapping of hydrothermal alteration, reaction path modeling, forensic geochemistry). The application of graphical and numerical tools is studied through lab-, field and computer-based laboratories.

Classes 3 hrs. and lab 3 hrs. a week.

Note: To fulfill the CCPG requirements for professional geologists, this course may be used as either a geosciences course or as a second chemistry course.

3826-49 Special Topics in Geology

3 credit hours

3876-99 Directed Study in Geology

3 credit hours

4300 Field Geology of Eastern Canada

3 credit hours

Prerequisite: GEOL 3326 and permission of instructor.

This course is offered in the form of a 10-day field trip across Eastern Canada, starting on Precambrian rocks of the Canadian Shield and moving up stratigraphy into the successive zones of the Phanerozoic Canadian Appalachians. In this course, the students are introduced to most types of rocks and tectonostratigraphic settings in the field, and they are given the means to reconstruct some of the main elements of the geological history of eastern Canada based on the study of key sections.

NOTE: This course involves a summer field school followed by labs 3 hrs a week in the fall term.

4400 International Field Camp

3 credit hours

Prerequisite: GEOL 3300 and permission of the instructor

This course is offered on an irregular basis in the form of a Geology field trip abroad, allowing the students to be exposed to geological features that cannot be found in Canada. In practical terms, this course will acquaint the student with modern methods of structural, stratigraphic, petrologic and/or geophysical analysis. After mastering these skills, students will undertake an independent geological report project. Students may be required to travel at their own expense.

4414 Tectonics

3 credit hours

Prerequisite: GEOL 1200, GEOL1201, GEOL 3413 (the latter can be taken concurrently).

This course describes the major features of the Earth and its place in the solar system. It introduces the evidence for plate tectonics, the analysis of plate movements, and the characteristic rock associations formed in different tectonic environments. Aspects of global change will be considered, including the evolution of tectonic processes through geologic time, changes in the atmosphere and oceans, and the importance of meteorite impacts.

Classes 3 hrs. and lab 3 hrs. a week.

4423 Advanced Palaeontology

3 credit hours

Prerequisite: GEOL 3323

This course focuses on more specialized areas of palaeontology and their application to geological questions. One portion of the course deals with paleobotany (fossil plants) and microfossils (palynology, conodonts, foraminifera). The remainder focuses on applications of palaeontology. Among the topics to be covered are biostratigraphic techniques in subsurface wells and outcrop, integration with radiometric and sequence stratigraphic techniques, fossil sampling and preparation, practical nomenclature and taxonomy, and the use of fossils for palaeoenvironmental determination.

Classes 3 hrs. and lab 3 hrs. a week.

4441 Mineral Resources

3 credit hours

Prerequisite: GEOL 1200, GEOL 1201, GEOL 2301 and GEOL 2302 (the latter can be taken concurrently)

A study of Earth's mineral resources, their classification, genesis and distribution in time and space. Important examples from Canada and abroad will be discussed. Topics will also include mineral exploration techniques, mining methods, metallurgical recovery, net smelter return, and ore reserve estimation/classification. Laboratories will examine a variety of base and precious metal ore deposit types in hand sample and thin section. Mining/exploration practice and resource exploitation are also examined in terms of their environmental impact.

Classes 3 hrs. and lab 3 hrs. a week.

4442 Economic Geology Field School

3 credit hours

Prerequisite: GEOL 4441

Students discuss concepts of underground mining, mineral processing, mineral economics, environmental site assessment, and reclamation and remediation, in addition to links between geological resource assessment and mining and mineral processing methods in Canada's major mining districts. Practical sessions in lectures involve characterization of ore materials from an applied and environmental mineralogy perspective (applied ore microscopy, deleterious metal toxicity, process mineralogy). A 1-week intensive field excursion to major mining camps in northern Ontario (Sudbury, Timmins, Cobalt) provides students with an opportunity to study ore deposits, mineral processing technologies, and reclamation/remediation activities directly in districts hosting world-class precious and base metals operations.

Classes: 2.5 hrs. in class/week

Lab: 55 hours of field-based instruction in Ontario (mandatory).

4450 Advanced Igneous and Metamorphic Petrology

3 credit hours

Prerequisites: GEOL 3312 and 3313.

Students examine igneous and metamorphic petrogenesis relevant to the interpretation of complex geological settings. The relationship between magma type and tectonic setting, differentiation and distribution trends, trace element partitioning, crystallization systematics, metamorphic phase equilibria, reaction balancing methods; porphyroblast-matrix relations and; quantification of P-T-time trajectories are discussed. Laboratories focus on the acquisition/manipulation of analytical data from rocks, minerals and melt inclusions.

Classes 3 hrs. and lab 3 hrs. a week.

4465 Advanced Sedimentology [GEOG 4465]

3 credit hours

Prerequisite: GEOL/GEOG 2325 and GEOL 3326.

This course examines current research on sedimentary rocks and basins and the methods used to understand them. Among the topics to be covered are modern carbonate and evaporite environments, exotic chemical sedimentary rocks and diagenetic cements, volcanogenic sedimentary rocks, sequence stratigraphy in carbonate and siliciclastic successions, applications of ichnology (trace fossils), the use of stable isotopes in the study of terrestrial carbonates, and the use of detrital minerals to interpret basin evolution.

Classes 3 hrs. and lab 3 hrs. a week.

4466 Petroleum Geology

3 credit hours

Prerequisite: GEOL 1200, 1201, 2305 and 2325 (the latter two can be taken concurrently).

The origin, migration and accumulation of oil and natural gas. Types of oil bearing structures and basic principles in oil exploration.

Classes 3 hrs. and lab 3 hrs. a week.

4467 Principles of Organic Geochemistry

3 credit hours

Prerequisites: GEOL 2301 and GEOL 3453

Students are provided with an in-depth look at Earth's carbon cycle. Students examine the production and preservation of organic matter from the most basic formation of carbon in the solar system to pathways of lipid biosynthesis; its assimilation into sedimentary organic matter; and its ultimate fate to become methane, carbon dioxide, and graphite.

4475 Glaciers and Glaciation [GEOG 4423]

3 credit hours

Prerequisite: GEOL 3373 or GEOG 3313.

4476 Coastal Geomorphology [GEOG 4413]

3 credit hours

4550 Honours Project

6 credit hours

Prerequisite: Honours standing and permission of Department.

Research project carried out under the supervision of one member of the Department or jointly by more than one faculty member. Originality of the research project is emphasized.

4826 – 4849 Special Topics in Geology

3 credit hours

Prerequisite: restricted to Year 4 students in the Honours program or permission of Department.

Readings and discussions of current literature in geology on selected topics. Such topics as plate tectonics, geochemistry, statistics in geology, isotope geochemistry, petrogenesis, ore genesis, may be included.

Classes 72 hrs. per semester; classes and labs.

4876 – 4899 Directed Study in Geology

3 credit hours

Prerequisite: restricted to Year 4 students in the Honours program or permission of Department.

Intended to supplement or provide an alternative to the regular geology courses in order to meet the special needs and interests of students. The course provides an opportunity to study a particular subject in detail and requires from the student some measure of independence and initiative.

Classes 72 hrs. per semester; classes and labs

German (GRMN)

Chairperson	M. McCallum, Modern Languages and Classics
Professor	J. Plews

Courses and programs in German are offered by the Department of Modern Languages and Classics

Department Policy - Modern Languages and Classics

1. Enrollment in some language courses involves the following formal placement procedures.

All students seeking entry into language courses who have not previously taken a language course at Saint Mary's University must complete and return the Language Profile Form to the Department of Modern Languages and Classics.

Based on the information provided in the Language Profile Form, students may receive notification from the Department to appear for an oral interview and/or a written placement test at a designated time.

The Department of Modern Languages determines the appropriate course placement for each student

- (i) Permission to register or remain in a particular language course can be refused if the Department judges that the student's knowledge exceeds the level for that course.
- (ii) Native speakers are not eligible to receive advanced credit for language courses.
- (iii) Completion of Advanced Standing (transfer) courses does not exempt a student from taking the placement test.

2. The student's eligibility to enroll in language, culture, and literature courses, and in specific sections of those courses, is determined by the Chairperson in consultation with the instructor in light of the student's ability level in the language concerned, previous course work completed at university or elsewhere, and overall size of the course or section of a course. In matters of placement, the decision of the Chairperson is final.

3. In order to ensure the academic integrity in language courses, especially at the lower levels of instruction, the Department of Modern Languages and Classics does not allow native or near-native speakers of a particular target language to enroll in courses at the 2000 level or lower.

Students who misrepresent their knowledge of any given language by providing inaccurate or incomplete information about their linguistic educational history will be subject to disciplinary action as laid out in Academic Regulation 19.

4. The Department of Modern Languages and Classics supports a policy of regular class attendance by students. Frequent, unexplained absences from class will result in a

lowering of the final grade in a manner to be determined by each faculty member.

5. Students should note that courses in literature and/or culture fulfill the BA Humanities requirement 3(c) but do not fulfill the 3(b) requirement. The courses designated with an * in front of the number satisfy the 3(c) requirement.

Programs in German

The following programs are available in German Studies: a minor, a concentration, and a certificate in German Language and Culture.

Concentration in German Studies

To obtain a concentration in German Studies in partial fulfillment of the B.A. General Degree (i.e. one with a Double Arts Concentration and a minimum of ninety (90) credit hours), a minimum of twenty-four (24) credit hours in German Studies is required. At most 6 credit hours can be at the 1000 level. Also, the minimum grade point average is 2.00.

Minor in German Studies

A minor in German Studies consists of twenty-four (24) credit hours, with at least twelve (12) of these being at the 3000 level or above. Normally, the first twelve (12) credit hour courses for the minor will be 1000 and 2000 level German language courses, followed by twelve (12) credit hours to be chosen from offerings in literature and cultural studies. Students entering the minor program with previous knowledge of German must consult the Coordinator for German Studies or the Chairperson of Modern Languages and Classics. A minimum grade point average of 2.00 is required for courses in the minor program.

Certificate in German Language and Culture (Cert. GLC)

The certificate program in German language and culture is designed to provide linguistic and cultural knowledge to persons interested in studying and/or working in a German-speaking country. The program consists of twenty-four (24) credit hours.

Admission

Admission to the program leading to the Certificate in German Language and Culture requires a formal application for admission and the official approval of the Coordinator for German Studies. Application forms are available from the Registrar. Eighteen (18) of the twenty-four (24) credit hours must be completed at Saint Mary's.

Program Courses

The program consists of twelve (12) required credit hours in language: GRMN 1101 and 1102 and/or 2201 or 2202, and/or 3311 and a number of optional credit hours. These optional credit hours must be at the 3000 level or above, and will be chosen from among the following courses:

GRMN 3306 German Culture & Civilization

GRMN 3307	Introduction to German Literature
GRMN 3308	Modern German Culture
GRMN 3309	Contemporary German Culture
HIST 3405	Society and Culture in Early Modern Europe
HIST 4520	Nazi Germany, Occupied Europe and the Holocaust

Requirements

A minimum cumulative grade point average of 2.00 in this certificate program is required. Students who have completed all the courses without being officially admitted to the program will not be accredited.

Course Descriptions

1101 Introduction to the German Language I

3 credit hours

An introductory language course for those beginning the study of German. Basic linguistic structures will be studied with particular emphasis on the oral communications.

1102 Introduction to the German Language II

3 credit hours

Prerequisite: GRMN 1101 or equivalent with a minimum grade of C.

This course continues the studies begun in GRMN 1101.

2201 Intermediate German I

3 credit hours

Prerequisite: GRMN 1102 (or equivalent) with a minimum grade of C.

A intermediate German language course with emphasis on grammar in context, listening comprehension, reading and writing.

2202 Intermediate German II

3 credit hours

Prerequisite: GRMN 2201 with a minimum grade of C.

A continuation of 2201.

*3306 German Culture and Civilization

3 credit hours

Readings, lectures, slide presentations, and film clips on the culture and civilization of Germany from the Germanic tribes to the present day. Discussions focus on literature, visual art, history, politics and society. This course is taught in English and satisfies the Faculty of Arts humanities 3c requirement.

*3307 Introduction to German Literature

3 credit hours

Prerequisite: None

A survey of German literature in translation from various periods. The course will provide the student with an introduction into literary analysis. This course is taught in English and satisfies the Faculty of Arts humanities 3c requirement.

*3308 Modern German Culture

3 credit hours

Prerequisite: None

A study of trends in German literature since the First World War and up to 1989. Poetry, plays and short stories are read and analyzed. This course is taught in English and satisfies the Faculty of Arts humanities 3c requirement.

3309 Contemporary German Culture

3 credit hours

Prerequisite: None

Readings. Lecture, slide presentations, and film clips on contemporary ("Postwende") culture and society of Germany. Topics include new trends in German literature, poetry, plays, and short stories as well as popular culture, music, film, advertising, the Web, festivals, social and political movements. This course is taught in English and satisfies the Faculty of Arts humanities 3 c requirement

3311 Advanced Oral and Written German I

3 credit hours

Prerequisite: GRMN 2202 or equivalent.

By combining readings, interactive tasks, and guided projects, this course offers students opportunities to expand and refine their ability to comprehend and to communicate effectively in German.

3312 Advanced Oral and Written German II

3 credit hours

Prerequisite: GRMN 3311 or equivalent.

This course is a continuation of German 3311.

3336 International Field Study in Cologne

3 credit hours

Prerequisite: Prior or simultaneous enrolment in a 3000- or 4000-level German course, OR HIST 4508.

This field study course enables students to examine insitu various aspects of German cultural history as exemplified by and in the city of Cologne. Following orientation classes on the significant position of Cologne in German culture and history, the students will depart for Germany where they will take part in educational tours of major cultural venues in and around Cologne. Further educational excursions may include a rococo palace in Brühl and Beethoven's house and the Museum of Contemporary German History in Bonn.

*4401 Post-1945 German Literature

3 credit hours

Prerequisite: GRMN 2202 with a minimum grade of C.

The study of the significant prose works and plays in German literature from 1945 to 1989. This course is taught in German.

4402 Contemporary Literature and Culture in German

3 credit hours

Prerequisite: GRMN 2202 with a minimum grade of C

The study of significant aspects of German literature and culture from the fall of the Berlin Wall in 1989 to the present day. This course is taught in German.

4826 – 4849 Special Topics

3 credit hours

Prerequisite: permission of the instructor.

This course is for students who have a good working knowledge of German, a special interest in German

literature, and who want to study a particular area through directed, independent readings.

4876 – 4899 Independent Study

3 credit hours

Prerequisite: permission of instructor prior to registration.

This course is for students who have a good working knowledge of German, a special interest in German literature, and who want to study a particular author through directed, independent readings.

Global Business Management

Please consult the B.Comm. Advising Centre.

Globalization has been a reality for Canadian businesses large and small for some time now. In order to survive, even small companies often have to compete directly with large international organizations. Most organizations are much more diverse than they were even a year or two ago. Many of our graduates will no doubt experience rewarding international placements and foreign travel as their careers develop. It will be unusual to work in firms without employees and clients who originate from different corners of the world. In order to develop synergy in this new business environment, it will be necessary to learn to work together, to communicate effectively, and to manage as a unit people coming from very different experiences, cultures, values, and expectations.

If managers wish to remain competitive, they must learn to adapt psychologically, to communicate effectively, and interact socially with other cultures. International managers are expected to speak more than one foreign language. The Bachelor of Commerce in Global Business Management offers the opportunity to study the skills essential for a successful international career.

Note: Students are advised that possession of the minimum qualifications does not guarantee admission to a particular academic program. Limits to the number of students who can be in a particular program at any one time exist and depend very much on the number of faculty members available in a particular academic unit.

Years 1, 2 are outlined in Section 3 of this academic calendar.

Note: In addition to all other requirements for the major, a minimum GPA of 2.2 out of 4.3 is required in: ACCT 3357, MKTG 3375, FINA 4476, MGMT 4488, and the geographic and cognate electives completed in fulfillment of this major. (Courses included in the GPA calculation are indicated by *).

Year 3

ACCT 3332 Planning and Control – See Note (e)

*ACCT 3357 International Accounting

FINA 2360 Business Finance I

FINA 3361 Business Finance II

*MKTG 3375 International Marketing

MGMT 3480 Ethical Responsibilities in Organizations

Language electives [six (6) credit hours] (same language as Year 4 elective)

*Geographic electives [six (6) credit hours] [see note (a) below]

Year 4

*FINA 4476 International Financial Management

*MGMT 4488 International Business Management

MGMT 4489 Strategic Management

Language electives [six (6) credit hours] (same language as Year 3 elective)

*Geographic electives [six (6) credit hours] [see note (a) below]

*Cognate electives [six (6) credit hours] [see note (b) below]
Free electives [three (3) credit hours]

Notes: (a) Geographic electives must be selected from the approved lists below for any of the following regions: Africa, Americas, Asia, or Europe unless another has been approved by the Program Director.

(b) Cognate electives must be selected from the approved lists below unless, on an individual basis, they have been approved by the Program Director.

(c) If ECON 3310, ECON 3312, ECON 3315, ECON 3322, ECON 3324, ECON 3325, ECON 3327, ECON 3365, ECON 4406, ECON 4410, ECON 4412, ECON 4413, or ECON 4414 was used to satisfy the Economics elective(s) in Year 2, the number of free electives is increased by three (3) credit hours.

(d) In cases where a student is fluent in two languages, other courses relevant to the major may be substituted for the language credits with the approval of the Program Director.

(e) Notwithstanding the course substitutions possible in notes (b) and (c), all students must complete at least twenty-four (24) credit hours of non-commerce electives.

(f) Students cannot receive credit for both ACCT 3332 and 3333 or ACCT 3335.

Approved Electives Offered at Saint Mary's University**Geographic Electives****Africa**

- RELS 2323 The Islamic Religious Tradition
 HIST 2317 Africa in the 20th Century: Colonialism and Independence
 IDST 4462 Sub-Saharan Africa: Contemporary Development Issues
 POLI 3314 Politics of the Developing Areas

Americas

- ANTH 2316 Indigenous Peoples of Canada
 ACST 1000 Making Sense of Atlantic Canada
 ACST 2311 Inheriting Atlantic Canada: The Cultural Past
 ACST 2400 Health and Social Policy in Atlantic Canada
 ACST 3310 The Atlantic Fisheries
 ACST 3312 The Culture of Atlantic Canada II
 ACST 3321 African Nova Scotia Culture
 ACST 3325 The Irish and Atlantic Canada
 ACST 3470 The British Black Atlantic
 ECON 3322 Canadian Economic Issues
 ECON 3324 The Atlantic Economy
 ECON 3325 Atlantic Economy Seminar
 FREN 3312 Introduction to Quebec Culture
 GEOG 2310 Geography of Canada: Overview
 GEOG 3320 Geography of the North
 GEOG 3340 Geography of Nova Scotia
 GEOG 3454 Bay of Fundy: Environments and Issues
 GEOG 2391 Geography of Ireland
 GEOL 1203 Earth History: Atlantic Canada Perspective
 GEOL 1208 Environmental Geology: Atlantic Canada Perspective
 HIST 1252 Canada to Confederation
 HIST 1253 Canada: Confederation to Present
 HIST 1255 The United States: 1865 to the Present
 HIST 1260 History of the Americas
 HIST 2318 The United States and the World since 1865
 HIST 2319 Canadian-American Relations
 HIST 2340 History of Atlantic Provinces
 HIST 2401 Canadian Political History
 HIST 2402 History of Cuba
 HIST 2403 History of Canadian Culture(s)
 HIST 3100 Canadian Women
 HIST 3352 Race and Racism in the United States
 HIST 3403 The Invention of Canada
 HIST 3480 Afro-Brazilian History
 HIST 4401 Crime in Canada
 HIST 4431 Global History since World War II.
 HIST 4519 Seminar in Modern European History
 HIST 4520 Nazi Germany, Occupied Europe and the Holocaust
 HIST 4530 Forced and Free Migration in Latin America
 HIST 4567 British Colonization
 POLI 2304 Canadian Politics in the 21st Century
 POLI 2307 Provincial Government and Politics
 POLI 3312 American Government
 POLI 3314 Politics of the Developing Areas
 POLI 3315 Canadian Foreign Policy
 POLI 3440 Canadian-American Relations
 POLI 3447 Canadian Political Parties
 POLI 3450 Women and Canadian Politics
 POLI 3454 Issues in Canadian Defence

- RELS 3355 Religion and Social Issues in Canada
 RELS 3358 Religious Diversity in Canada
 SPAN 1000 Introduction to Latin American Studies
 SPAN 3304 Americas: The Changing Face of Latin America
 SPAN 3310 Latin America Culture
 SPAN 3330 Diablos and Fiestas in Latin America

Asia

- ANTH 2311 Ethnology: Melanesia
 ANTH 2326 Contemporary East Asia
 ANTH 2327 Japanese Society
 ASNT 1105 Introduction to Chinese Culture
 ASNT 1106 Introduction to Japanese Culture
 ASNT 1107 Introduction to Korean Culture
 ASNT 2210 Indigenous Voices in Modern Asia
 ASNT 2303 Contemporary Japan: Institutions and Culture
 ASNT 2305 Contemporary China: Institutions and Culture
 ASNT 3300 Multidisciplinary Study of Asia
 ASNT 3302 Japan in Film and Literature
 ASNT 3310 Chinese Film and Literature
 ASNT 4400 Seminar in Asian Studies
 ECON 3327 Asia Pacific Economics
 HIST 1222 Introduction to East Asian History
 HIST 2354 Japan before 1800
 HIST 2355 Late Tokugawa and Imperial Japan: 1800-1945
 HIST 2356 Japan since 1945
 HIST 2381 China before 1800
 HIST 2382 China in Revolution: 1800-1949
 HIST 2383 China Since 1949
 HIST 2393 History of Vietnam
 HIST 2394 History of Korea
 HIST 3371 The Chinese Cultural Revolution in History and Memory
 HIST 3416 Love and Family in China
 HIST 4572 Memories of WW II in China
 HIST 4573 The Rise and Fall of the Japanese Empire
 IDST 4461 South East Asia: Contemporary Development Issues
 POLI 3314 Politics of the Developing Areas
 POLI 3318 Politics of the Middle East
 RELS 2323 The Islamic Religious Tradition
 RELS 2327 The Buddhist Religious Tradition
 RELS 3010 Vietnamese Religious Traditions
 RELS 3314 Greek Sanctuaries
 RELS 3337 Religious and Art: The East
 RELS 3372 Islamic Cultures and Civilizations

Europe

- CLAS 1001 Ancient Civilizations of the Near East and Egypt
 CLAS 1002 The Ancient Civilizations of Greece and Rome
 CLAS 2451 [HIST 2451] Greek History I: From Minos to Medes
 CLAS 2452 [HIST 2452] Greek History II: The Golden Age of Greece
 CLAS 2454 [HIST 2454] Bloody Ceasars: Roman History II
 CLAS 3317 Greek Sanctuaries
 FREN 2260 Introduction to Francophone Cultures
 FREN 3310 Introduction to French Culture
 GEOG 2390 Geography of Ireland
 GRMN 3306 German Culture and Civilization

GRMN 3307	Introduction to German Literature	ECON 4413	International Macroeconomics and Finance
GRMN 3308	Modern German Literature	ECON 4414	International Trade
GRMN 3309	Contemporary German Culture	GEOG 1100	Global Perspectives on Land and Life
HIST 1215 [IRST 1215]	Ireland: An Introduction	GEOG 1200	People, Place and Environment
HIST 2303	Tudor and Stuart Britain	GEOG 3321	Economic Globalization: Geography of Manufacturing
HIST 2336	Revolution, Reform and Respectability: Britain 1688-1870	HIST 1201	Civilization in the West
HIST 2397	The Lingering Death of Imperial Britain: 1870-1982	IDST 4470	Environment and Development
HIST 3301	Crime and Punishment in England Before 1800	PHIL 2305	Environmental Ethics
HIST 3303	Law and Society in Britain 1500-1800	PHIL 2312	Contemporary Political Philosophy
HIST 3405	Society and Culture in Early Modern Europe	PHIL 2325	Philosophical Issues in International Development
HIST 3415	The Family in Europe 1400-1900	POLI 1250	Politics and Globalization
HIST 3460	Issues in Modern Irish History	POLI 2305	International Relations
HIST 3465	Scotland's Histories	POLI 3321	International Organization
HIST 4200	Women's Rights in Britain 1500-1925	POLI 3322	Global Political Economy
IRST 1215	Ireland: An Introduction	POLI 3456	Issues in International Security
IRST 1216	Ireland: Culture and Society	POLI 4402	Model United Nations
IRST 2346[LING 2346]	A Sociolinguistic History of Ireland	POLI 4451	Gender and International Relations [WMST 4451]
IRST 3787	Ireland in an Age of Globalization	RELS 1220	Introduction to Comparative Religions, I
IRST 4566	Irish Migration	RELS 1221	Introduction to Comparative Religions, II
PHIL 2345	Greek Philosophy: The Presocratics and Plato	RELS 1251	Religion in Contemporary Culture
PHIL 2346	Greek Philosophy: Aristotle and The Hellenists	RELS 2330	Spirituality and Work
POLI 3316	Politics in the European Union	RELS 2347	Ecology and Religion
		SOCI 3386	Sociology of Developing Societies
		SOCI 4420	Genocide
		WMST 3387	Women and Development
		WMST 4422	Gender and Development: Theory and Method
		WMST 4423	Gender and Development: Policy and Practice
			**Other on-campus courses may meet these requirements. In order to do so they must be approved by the coordinator of the program and this can be done only with the submission of appropriate course outlines.
			*Courses may be taken at other institutions subject to the approval of the Program Director and the Dean of Sobey School of Business.
Cognate Electives			
ANTH 1290	Introduction to Language and Society		
ANTH 2301	Anthropology of Childhood		
ANTH 3301	Nature of Culture		
ANTH 3302	Social Organization		
ANTH 3304	Egalitarian Societies		
ANTH 3305	Chiefdoms		
ANTH 3309	Peasants		
ANTH 3329	The Arctic Culture Area		
ANTH 3334	Warfare and Aggression: Anthropological Approaches to Human Conflict		
ANTH 3366	Worldview: Anthropological Approaches		
ECON 3310	Development Economics		
ECON 3315	Comparative Economic Systems		
ECON 3365	International Economic Issues		
ECON 4410	Issues in Economic Development		

Health, Wellness and Sport in Society (HWSS)

For further information, contact Peter Twohig, Associate Dean of Arts (Curriculum and Student Affairs)

The Certificate in Health, Wellness and Sport in Society (CHWSS) is an interdisciplinary certificate administered by the Faculty of Arts in collaboration with the Centre for the Study of Sport and Health.

The Certificate is designed for students who wish to improve their knowledge of the social study of health, wellness and sport in their social context.

The Certificate encompasses a set of questions that engage the social, cultural, political and moral aspects of health, wellness and sport. It will be attractive to students from all three faculties.

Additional information on the application process is available on their web site

(<http://www.smu.ca/academics/certificate-in-health-wellness-sport.html>).

Note: For Experiential Learning in Health, Wellness and Sport in Society (HWSS 3000) the program may require a Criminal Record Check (CRC) or Child Abuse Registry checks (CAR), or additional qualifications. Costs associated with such requirements are the responsibility of the student and evidence of such requirements must be provided before beginning HWSS 3000.

Admission

Students can apply to following the completion of nine (9) credit hours, and enter the program following the completion of eighteen (18) credit hours.

- The minimum GPA to enter the program is 2.3 (C+) and students must achieve a minimum of B in the HWSS 2000.1 to continue in the Certificate program.
- Students must achieve a Program Grade Point Average of 2.3 (C+) to fulfill the requirements for this credential.
- Students must complete twenty-four (24) credit hours as follows:

Certificate Courses

1. Nine (9) credit hours of required core courses:

- HWSS 2000 Health, Wellness and Sport in Society: An Introduction
- HWSS 3000 Experiential Learning in Health, Wellness and Sport in Society
- HWSS 4000 Seminar in Health, Wellness and Sport in Society
- a minimum of six credit hours from the following

2. Six (6) credit hours from Group A courses below:

- ANTH 3201 The Anthropology of Food
- ANTH 3303/WMST 3303 Sex, Gender and Society
- ENGL 3343 Cultural Studies
- HIST 3201 The Trouble with Normal
- HIST 3202 History of Medicine

- HIST 3420 History of Sport and Leisure in the Modern World
- POLI 3245 Public Policy I
- POLI 3246 Public Policy II
- PSYC 3335 Abnormal Psychology: History and Theory
- SOCI 3402 Social Problems

3. Nine (9) credit hours selected from either Group A (above) or from Group B (listed below).

Other applicable courses are posted through the Faculty of Arts web site at <http://www.smu.ca/academics/certificate-in-health-wellness-sport.html>.

ANTH

2301 Anthropology of Childhood
3303 Sex, Gender and Society [WMST 3303]
3376 Archaeology of Death

ACST

2400 Health and Social Policy in Atlantic Canada
2471 History of Football (Cross-listed as HIST 2471)
2472 History of Hockey (Cross-listed as HIST 2472)
3320 Gender in Atlantic Canada
4400 Health, Illness and Disease in Atlantic Canada

ENGL

2318 The Writer and Nature
4493 Doing Discourse Analysis (Cross-listed as LING 4493)
4494 Approaches to Discourse Analysis (Cross-listed as LING 4494)

GEOG

2200 Fundamentals of Human Geography
3312 Urban Land Use
3329 Geographic Perspectives on Nature
3343 Weather and Climate
4442 Urban Planning
4443 Natural Hazards

HIST

2201 Environmental History of Europe, 1300 - 1900
2250 Soccer: A History of Brazil
2471 History of Football (Cross-listed as ACST 2471)
2472 History of Hockey (Cross-listed as ACST 2472)
3415 The Family in Europe 1400-1900
3416 Love and Family in China

IDST

4466 Urbanization and Development
4470 Environment and Development

LING

3350 Interdisciplinary Perspectives in Linguistics
3427 Language, Gender and Power (Cross-listed as ENGL 4427)

PHIL

2302 Ethics
2318 Science and Society

2330 Philosophy of Religion
 2368 Bioethics
 2401 Games and Sports

POLI

3205 Politics and Sex
 3330 Public Administration
 4449 Public Policy Challenges: Gender, Race and Class
 (Cross listed as WMST 4449)

PSYC

3329 Child Development
 3332 Adolescent Development
 3347 Longevity and Aging
 3348 Gender Roles
 3349 Drugs and Behaviour
 3351 Prevention and Treatment of Addictions
 3355 Cognitive Psychology
 3360 Applied Sport Psychology
 4417 Interpersonal Relationships
 4420 Disabilities
 4421 History of Psychology
 4434 Personality
 4436 Counselling and Psychotherapy
 4456 Advanced Counselling and Psychotherapy
 4489 Positive Psychology
 4490 Health Psychology
 4497 Community Psychology

RELS

2330 Spirituality and Work
 2347 Ecology and Religion
 2350 Faith in Action: Religion and Social Movements
 2351 Love
 2352 Death
 3330 Spirituality in the Workplace
 3348 Religion and Ecological Issues in the Developing World
 3349 Science and Religion
 3354 Aboriginal Peoples, Religion, and the Justice System
 3355 Religion and Social Issues in Canada

SOCI

2124 Social Inequality and Justice
 3020 Introduction to Science and Technology Studies
 3408 Urban Sociology: Introduction & History
 3505 Prisons and Punishment
 3506 Gender, Race and Justice
 3509 Victims and Criminal Justice
 3511 Youth Crime and Moral Panics
 3546 Crime and the Media

Course Descriptions

2000 Health, Wellness and Sport in Society: An Introduction

Prerequisite: Permission of the Dean of Arts (or designate) and completion of 18 credit hours The minimum GPA to enter the program is 2.3 (C+)

Students are provided with an introduction to fundamental concepts in the social study of health, wellness and sport. Students examine specific content areas from multiple perspectives, including historical, political, cultural and economic contexts. Students consider the production and transmission of expert knowledge and the connection between evidence and public policy.

3000 Experiential Learning in Health, Wellness and Sport in Society

Prerequisite: HWSS 2000, 36 additional university credit hours or permission of the instructor.

Students enrolled in this experiential learning course will undertake a placement with a community-based organization with an interest in health, wellness or sport. This experience will assist students in understanding how theory and research is used to develop policy, in decision making, and in planning programs and services.

4000 Seminar in Health, Wellness and Sport in Society

Prerequisite: HWSS 2000, 36 additional university credit hours or permission of the instructor.

This seminar is the capstone seminar for the Certificate in Health, Wellness and Sport in Society. Students are provided with an opportunity to integrate their knowledge of the social study of health, wellness and sport, consider perspectives from different disciplines, and consider the connections between research and the broader public. Emphasis will be placed on the activities of government, the role of voluntary groups and agencies, and citizen participation. Students will complete a major research paper and learn advanced research and presentation skills.

History (HIST)

Chairperson	M. Vance
Professors	J. Reid, T. Stretton, M. Vance
Associate Professors	R. Barbosa, B. Brown, K. Freeman, K. Kehoe, J. Munro, N. Neatby, B. Sewell, L. Warner
Assistant Professor	X. Sun
Adjunct Professors	L. Codignola-Bo, M. McGowan, I. Saney, M. Sweeney,
Professors Emeriti	O. Carrigan, C. Howell, J. Morrison, T. Murphy, G.F. Young

Departmental Policy

To obtain a **major** in history, students must complete at least forty-two (42) credit hours in history, as follows:

- a. six (6) credit hours but no more than twelve (12) credit hours at the 1000 level;
- b. HIST 3000 The Discipline of History;
- c. the remaining credit hours must be at the 2000 or 3000 level or above; and
- d. at least six (6) credit hours at the 4000 level.

Note: A minimum cumulative grade point average of 2.00 is required for courses designated for a major (see the general regulations concerning Arts Degree requirements).

All prospective honours students should refer to the section of this *Calendar* pertaining to honours degrees and apply to the Registrar for enrolment in that program after completing eighteen (18) credit hours or more of History courses.

To obtain an **honours** degree in History, students must satisfy the requirements of the major program. They must also complete:

- a. satisfy the requirement of the Major program;
- b. complete twelve (12) credit hours above the 1000 level of which at least nine (9) are at the 4000 level, and
- c. complete HIST 4500 The Honours Seminar.

***Please note:** A minimum cumulative grade point average of 3.0 is required to qualify for the Honours program and to graduate with Honours.

All students majoring in history are strongly advised to take twelve (12) credit hours in a foreign language. In the case of students concentrating in Canadian history, French is specified as the recommended language.

To **minor** in History, students are expected to follow the general requirements for a minor as outlined in Faculty of Arts Regulation 8, Section 3 of this *Calendar*.

To obtain a **concentration** in History in partial fulfillment of the B.A. General degree (i.e., one with Double Arts

Concentrations), a minimum of twenty-four (24) credit hours in HIST is required with 18 or more credit hours at the 2000 level or above; at least 3 credit hours of which must be taken at the 4000 level; also a minimum grade point average of 2.00. Further details are available from the chairperson.

Cross-Listed Courses

Certain courses offered by the Departments of Modern Languages and Classics, Anthropology, and Religious Studies may, in special circumstances, be cross-listed and counted in a student's History concentration. In such cases, the student must obtain the Department's permission.

Graduate Students

Graduate students should refer to the material entitled "Master of Arts in History Degree," in the Graduate Academic *Calendar*.

General Course Description

- a. History courses numbered at the 1000 level are survey courses. They are normally lecture courses; some combine lectures with small tutorial group meetings.
- b. 2000 and 3000-level courses are usually structured to include both lectures and seminars.
- c. History courses at the 4000-level courses are normally seminar courses designed for advanced work by history majors and honours.
- d. With regard to renumbered or restructured courses, students are advised that they are not eligible to take a course for credit if they already have a credit for a comparable course, even if that course was taken at a different level.

Course Descriptions

1000 Making History

3 credit hours

Through examining a small number of historical events in depth, students will be introduced to the techniques required to practice history. They will have the opportunity to 'make history' by applying their skills in research, analytical thinking and writing to produce their own interpretations of select events.

1201 Civilization in the West

6 credit hours

This course is designed to explore the origins and development of the characteristic political, legal, and cultural institutions of Western Civilization and their impact on other cultures.

1203 The Twentieth Century in Europe

6 credit hours

Students examine the major themes of the history of the twentieth century as they played out in Europe. Emphasis will be placed on the First and Second World Wars I, the

Nazi regime and the Holocaust, the Cold War
Decolonization and the effects of these events on the lives of ordinary people.

1215 Ireland: An Introduction [IRST 1215]

3 credit hours

The course is a general introduction to Ireland through a survey of the island's history. Although it is situated on the fringes of Europe, Ireland was influenced by developments on the continent from the earliest times. In addition, the later experience of overseas migration connected Ireland to developments across the Atlantic and beyond. This course will pay particular attention to how Ireland's history reflects these broader European and transatlantic connections.

1222 Introduction to East Asian History

3 credit hours

This introductory course explores historical change and social transformation in China, Japan, Korea, and Vietnam from antiquity to the present. Emphasizing especially the Chinese and Japanese experiences, the class will examine some of the more salient social, intellectual, political, and economic features apparent in the heritage of these societies as well as some of the ways each society has influenced the others.

1252 Canada to Confederation

3 credit hours

This course will examine early Canadian history from the time of the first native-European contact up to Confederation. Emphasis will be placed on the development of New France/Lower Canada, Upper Canada, and the West. Political, social, and economic themes will be considered.

1253 Canada: Confederation to the Present

3 credit hours

This course will examine the shape of political culture in modern Canada; the debate between the advocates of the nation state and of federalism; and the impact of industrialization, regionalism, war, and depression on that debate.

1255 The United States since 1865

3 credit hours

Students examine the history of the United States since the Civil War, examining social, economic, political and transnational developments of the last century and a half. Through lectures, reading, and discussion, students consider themes such as political economy, international relations, urbanization, social movements, migration, race, gender and state developments.

1260 History of the Americas

3 credit hours

This is an introductory survey of the history of the Americas, focusing on the era of European colonization and subsequent independence movements. This course is designed to help students understand the different historical experiences of the societies of this region and the ramifications of these differences for the present time.

1262 Introduction to Latin American History

3 credit hours

Students examine major themes in Latin American history, such as conquest, colonialism, slavery, caudillismo, populism, immigration, political unrest and social struggles.

1301 Introduction to the History of Science and Technology

3 credit hours

Students follow the evolution of scientific inquiry and methodology from antiquity to modernity. Students examines the major developments in the history of science and technology, including the emergence of science in antiquity, medieval science, the Scientific Revolution, the expansion of science in the modern world, the relation between science and society, and the cultural significance of science and technology.

2200 History of Media and Communications in Europe

3 credit hours

In this course on the long history of communications and the media, students will cover topics such as the making of medieval manuscripts, the printing revolution, censorship, the rise of the newspaper, the creation of public libraries, the inventions of photography, the telegraph, telephone and television, and the shift to digital formats, the world wide web, internet and social media.

2201 Environmental History of Europe, 1300 - 1900

3 credit hours

From farming practices in the medieval period to the smog and blackened landscapes of the industrial nineteenth century, Europeans have had an impact on their environment. Students explore the changes and how European encounters with the new world brought disease, and an exchange of foods, animals and plants between the continents. This course provides a long-term perspective on changes in climate, water and land use, breeding as well as species extinction, and the foods available in Europe and its North American colonies from 1300-1900.

2203 History of Childhood 1400-1900

3 credit hours

Students consider the child in Europe from infancy to adolescence through swaddling, disease, play and toys, the life of girls and boys, child labour, schooling, foundlings and orphans to the development of children's rights. Students analyze evidence such as letters, diaries, novels, paintings, court records, furniture and clothing.

2250 Soccer: A History of Brazil

3 credit hours

Students will trace the historical forces behind the evolution of soccer in Brazil – from an elite sport to a national passion with unifying powers. Topics include: the transition to a slave free society, immigration, the development of a national identity, urbanization, the military dictatorship, as well as gender divisions and the role of the media and economics behind the popularity of the sport.

2251 Pop Culture in Latin America

3 credit hours

Students explore the development of popular culture in Latin America to discover how diversity, social and political

struggles influenced the diverse cultural aspects of the region. Music will be a major focus (samba, salsa, tango among others), but emphasis will be also given to visual arts, film and TV.

2303 Tudor and Stuart Britain

6 credit hours

This lecture and seminar course provides a broad survey of the social, economic, cultural and political histories of Britain between 1485 and 1714, with a focus on original sources and images and how historians interpret them. It will examine how this small island nation on the fringes of Europe began its transformation into a dominant world power, while experiencing religious reformation, invasion threats, civil war, republican experiment, and the execution of one king and the forced exile of another. It will also examine some of the remarkable personalities of the age, from Mary Tudor and Queen Elizabeth to Christopher Marlowe, William Shakespeare, and Isaac Newton.

2311 Inheriting Atlantic Canada: The Cultural Past [ACST 2311]

3 credit hours

Prerequisite: A minimum of twenty-four (24) university credit hours.

2317 Africa in the 20th Century: Colonialism and Independence

3 credit hours

An examination of the activities of the colonial powers in governing the territories and peoples which they acquired in the 'Scramble'. The course will also study the reactions of Africans to colonialism and the factors which led to independence.

2318 The United States and the World since 1865

6 credit hours

This course traces the interaction between the United States and the rest of the world in order to understand how the US has risen to a position of unparalleled might. It focuses on structures of dominance based on gender, race, and class in order to ascertain how the world has been influenced by the US and how its projection of power has shaped the United States domestically. It pays attention to the policies of Presidents and Secretaries of State, themes of oppression, liberation, migration, consumption, globalization, and forms of popular culture (especially film) which represent and construct the transnational trajectories of US power.

2336 Revolution, Reform and Respectability: Britain 1688 - 1870

3 credit hours

The period examined in this course is not only associated with the creation of the British state, but also its rise, by the middle of the 19th century, to the leading world power. Yet recent literature has demonstrated that this development was accompanied by profound social and economic transformations that were highly contested. In order to appreciate the nature of these struggles, this course will cover such diverse topics as the impact of overseas expansion, warfare, agricultural and industrial change, migration, political radicalism, and 19th-century Victorian morality.

2341 Atlantic Provinces History, to Confederation [ACST 2341]

3 credit hours

Commencing with the earliest Native-European contact in the Atlantic Provinces, students in this course will examine the interactions among the peoples who inhabited the region up until the mid-nineteenth century. Major events, such as wars, treaties, and Confederation will also be considered

2342 Atlantic Provinces History, from Confederation [ACST 2342]

3 credit hours

Beginning with the post-Confederation era, and then moving into the phases of industrialization and deindustrialization, students will study social, economic, and political developments in the region up to the end of the twentieth century and beyond. Major events such as the two World Wars will also be considered

2346 Black Heritage in Maritime Canada

3 credit hours

This course will provide an historical survey of the Black population in Maritime Canada, its origins, socio-economic conditions, and evolution to the present.

2354 Japan before 1800

3 credit hours

After a brief survey of prehistoric Japan, this course explores two formative eras in Japanese history: the era of courtly (or aristocratic) society and the era of the samurai (warriors). Although the course proceeds chronologically, in order to provide students with a more analytical understanding the course employs a thematic approach, considering political, economic, intellectual, and social issues in each era. No previous study of Japan is required.

2355 Late Tokugawa and Imperial Japan: 1800-1945

3 credit hours

After a brief survey of the Tokugawa Shogunate, emphasizing those features of society most pertinent to the ensuing era, this course examines the recreation of Japanese society between the Meiji Restoration and the Pacific War. While chronological, in order to provide students with a more analytical understanding of the era the course follows a thematic approach, considering political, economic, intellectual, and social issues. No previous study of Japan is required, although either HIST 1222 or 2354 are recommended.

2356 Japan since 1945

3 credit hours

Students examine the history of Japanese society after the Pacific War, with occasional reference to earlier eras. Through a thematic approach, exploring political, economic, intellectual, and social issues students may gain a more analytical understanding of contemporary Japanese society. No previous study of Japan is required, although either HIST 1222 or 2355 are recommended.

2381 China before 1800

3 credit hours

This course explores roughly four millennia of Chinese history, from the distant origins of Chinese society to its zenith during the Qing Dynasty. Divided into three eras -

Ancient, Early Imperial, and Late Imperial - the class follows a thematic approach that considers the dynamics of political, economic, intellectual, and social change within each era. No previous study of China is required.

2382 China in Revolution: 1800-1949

3 credit hours

This course explores the collapse of imperial China and the ensuing efforts to renew Chinese society. While chronological, the course follows a thematic approach, considering the dynamics of political, economic, intellectual, and social change within the Late Imperial and Republican eras. No previous study of China is required, but History 1222 or 2381 are recommended.

2383 China Since 1949

3 credit hours

This course explores Chinese since the founding of the People's Republic. The course follows a thematic approach examining the dynamics of political, economic, intellectual, and social change so as to provide students with a more analytical understanding of contemporary China. No previous study of China is required, but History 1222 or 2382 are recommended.

2393 History of Vietnam

3 credit hours

After surveying the emergence of Vietnamese civilization from antiquity, students will explore Vietnam's history since the founding of the Nguyen Dynasty. These roughly two centuries fall into four eras—dynastic, colonial, Cold War, and independent socialist republic—in which political, economic, intellectual, and social issues are addressed. No previous study of Vietnam is required.

2394 History of Korea

3 credit hours

After a brief survey of the rise of Korean civilization since antiquity, this course examines three turbulent eras in Korean history: (1) the long era of gradual change during the Yi dynasty that culminated in confrontation with imperialist powers, (2) the half-century of Japanese domination, and (3) the era of civil war and continuing division. Although the course proceeds chronologically, in order to provide students with a more analytical understanding the course employs a thematic approach, considering political, economic, intellectual, and social issues in each era.

2397 The Lingering Death of Imperial Britain, 1870-1982

3 credit hours

Since the late nineteenth century, many Britons have been preoccupied with notions of imperial, economic, and social decline. This course will test the validity of these perceptions by surveying important changes which have affected British society from the height of British imperial power to the Falklands War. Some topics to be explored are: "new imperialism", the women's suffrage movement, decolonization, deindustrialization, mass unemployment, Labour socialism, Thatcherism, the impact of two world wars, and the rise of Celtic (Irish, Scottish, and Welsh) nationalisms.

2401 Canadian Political History

3 credit hours

This course is an analysis of the development of Canadian politics and public policy from confederation to the Chretien years. While the main focus is federal politics, developments at the provincial level will be analyzed through a number of case studies. Public policy initiatives including social welfare programs, bilingualism and multiculturalism will also be analyzed.

2402 History of Cuba

3 credit hours

Students will gain a multifaceted and nuanced view of Cuba's complex past, examining how this history has shaped and continues to shape the present. Themes include gender and race relations, social policies and programs, governance and politics, state-building and economic development.

2403 History of Canadian Culture(s)

3 credit hours

This course is an examination of Canadian culture from the late 19th century to the present. It will involve the study of novels, magazines, music, art, film radio, television. Emphasis will be placed on the government's attempts to foster a pan-Canadian culture and the challenges of doing so in a country of regions each with its own distinct cultures.

2420 The World at War, 1914-1918

3 credit hours

Students are introduced to the First World War and its significance in the history of the twentieth century. Themes include the causes of the conflict, the war aims and strategies of the belligerent powers, the character of various military operations and the war's impact on civilian populations.

2421 The World at War, 1939 – 1945

3 credit hours

Students are introduced to the Second World War and its importance in global history. Themes include: the war's roots in the 1920s and 1930s, the goals of Axis and Allied powers, and military operations on land, at sea, and in the air. Special attention will be paid to the war's impact on civilians.

2440 Revolutions in Latin America

3 credit hours

Students examine some of the major revolutions that have taken place in 20th-Century Latin America. Students explore the background, participants, reasons and consequences of these revolutions.

2451 Greek History I: From Minos to the Medes

[CLAS 2451]

3 credit hours

2452 Greek History II: The Golden Age of Greece

[CLAS 2452]

3 credit hours

2453 Republic and Revolution: Roman History I [CLAS

2453]

3 credit hours

2454 Bloody Caesars: Roman History II [CLAS 2454]

3 credit hours

2471 History of Football [ACST 2471]

3 credit hours

Students analytically examine the evolution of sports such as soccer, rugby, Australian and North American football from the nineteenth century onwards, commencing with the earliest forms of vernacular football. Although the scope will be international, special attention will be paid to Atlantic Canada.

2472 History of Hockey [ACST 2472]

3 credit hours

Prerequisites: None

Students analytically examine the evolution of sports such as shinty, hurling, field hockey, ice hockey, and sledge hockey from the nineteenth century onwards, commencing with the earliest forms of vernacular stick sports. Although the scope will be international, special attention will be paid to Atlantic Canada.

2500 War and Society in the Ancient Mediterranean [CLAS 2500]

3 credit hours

2826-2849 Selected Topics in History

3 credit hours

The subject matter of particular three (3) credit hour courses will be announced from time to time. They will cover aspects of history in one or more of the major geographical areas of North America, Europe, Africa and Asia. The topics to be examined will be determined by the instructor.

3000 The Discipline of History

3 credit hours

This course addresses the nature of historical study, that is, the theories, methods, principles and problems associated with the discipline of history. It examines the following basic areas of historical inquiry: the purposes of historical study; the relevance of the past; the relationship between the past and present; the nature and validity of historical knowledge; the relationship of history to other disciplines; and the current state of historical interpretation.

3100 History of Gender, Feminism and Sexuality in Canada

3 credit hours

This course offers a survey of the historical experiences, status and activities of Canadian women in all their diversity from 1900 to the present. Topics will include women's economically valuable work in the household and the paid labour force, and family life and sexuality. Special emphasis will be placed on women's struggles for economic equality and full political and social participation in Canadian society

3110 Women in the Two World Wars

3 credit hours

Students examine women's experiences during the First and Second World Wars. During both conflicts, women fought as soldiers and spies, worked in industry and support services, tended to the wounded and served as symbols of home and family. Women were also targets of unprecedented violence.

3201 The Trouble with Normal

3 credit hours

Students examine the history of the body, with particular attention to changing ideals of beauty, constructions of disability, the medicalization of the body, the gendered body, and other topics. The primary focus is on the nineteenth and twentieth centuries, as well as historicizing contemporary ideas of healthy bodies, disablement, and bodily practices. The focus will be primarily on North America, although comparative perspectives will be taken from time to time.

3202 The History of Medicine

3 credit hours

Students examine the history of medicine, with an emphasis on Europe and North America, and how medicine in those areas interacted with other medical systems, including Arabic and Chinese medicine. Topics to be considered include the impact of epidemic disease, ideas of disease causation and treatment, the rise of the hospital, medicine and war, and the creation of an idea of international and global health.

3203 History of the Body, Health and Sexualities, 1400-1900

3 credit hours

Students survey the changing knowledge of human anatomy, attitudes to health care, hygiene, and clothing, understandings of conception, pregnancy and childbirth as well as the histories of sexuality and same-sex relationships in the centuries from the Renaissance to the early industrial era.

3300 Popular Music & Culture in Britain since 1850

3 credit hours

Students explore popular culture in Britain during the 19th and 20th centuries through the study of British popular music – emphasizing the youth culture that emerged after World War II. American and Imperial cultural influences are examined through groups and movements such as the Beatles, Punk, and Reggae.

3301 Crime and Punishment in England Before 1800

3 credit hours

This course is a survey of the history of crime and punishment in England in an age before professional police forces and standing armies. Students trace the evolution of criminal courts, the role of juries and the shift from physical punishments to imprisonment and transportation. Other topics include medieval ordeals, dueling, riots and popular protest.

3303 Law and Society in Britain 1500-1800

3 credit hours

The law was an essential constituent of pre-modern English society, shaping everything from inter personal relations to the nature of government. Students examine the institutions and culture of law from the end of the medieval period to the dawn of the modern age, excluding crime and criminal law. Topics include law courts and litigation, church law and the policing of morality, community justice, law and literature, defamation, censorship and state formation.

3351 Histories of Capitalism

3 credit hours

Students proceed thematically in order to highlight how class is made and remade, and with what effects. Themes

such as transnational capital, citizenship, labour movements, culture, gender, and imperialism are examined.

3352 Race and Racism in the United States

3 credit hours

The racial roots of US history are traced in order to explore the importance of struggles for racial justice as well as changes and continuities in forms of racial oppression.

3354 The Foreign Protestants and the Founding of Lunenburg [ACST3354]

3 credit hours

Students examine the history of the Foreign Protestants (Lunenburg Germans) in Nova Scotia from the founding of Lunenburg in 1753 to World War II. Topics include settlement history, material and cultural traditions, the persistence of their ethnic identity into the 20th century, their importance to 19th century fishing and shipbuilding, and the designation of “Old Town” Lunenburg as a UNESCO World Heritage site.

3364 Nova Scotia in the Romantic Age, 1768-1836 [ACST3364]

3 credit hours

Students examine the Romantic Era in Nova Scotia using a methodology that is part historical, part documentary, and part conceptual. The historical focus is on Maritime explorers and scientists between 1768 and 1836. The documentary focus is on how their discoveries led to the “making” of Nova Scotia. The conceptual focus is the impact of science and exploration on Romantic Literature.

3371 The Chinese Cultural Revolution in History and Memory

3 credit hours

Students explore the origins, dynamics and legacies of the Great Proletarian Cultural Revolution (1966-1976) which has been commonly viewed as the darkest era in the history of the People’s Republic of China.

3400 Rome’s Eternal Glory: The Age of Augustus [CLAS 3400]

3 credit hours

Prerequisite: 6 credit hours in CLAS or 30 credit hours overall

3402 Aspects of Global History: One Earth, Many Worlds [IDST 3403]

3 credit hours

Selected African, Asian, and Latin American societies will be examined especially with regard to the impact of European expansion and conquest on what is now called the Developing World. Various economic, political, and social themes will be studied to provide a context for understanding the forces and events which led to the rise of the ‘global village’ of the 1990s.

3403 The Invention of Canada

3 credit hours

Canada has been imagined in a number of ways throughout its history: as a storehouse of staples commodities, a raucous frontier society, a mature colony that evolved peacefully into nationhood, as a bicultural and/or multicultural society, a land of regions, a cultural appendage of the United States, and as a peacemaking middle power. How have these

images been created, and whose interests did they serve? To what extent have these popular representations incorporated an appreciation of class, ethnic, gender, and racial differences? This course will look at the invention of national images from the 17th to the 20th century, using anthropological, architectural, literary, artistic, and cultural sources.

3405 Society and Culture in Early Modern Europe

3 credit hours

This course investigates the people, culture, and regions of Europe (England, France, Germany, Italy, Spain, and Holland) from the Renaissance to the late 17th century. Through topics such as witchcraft and literacy, students explore a variety of primary sources including painting, architecture, woodcuts, popular ballads, and literature.

3406 The Renaissance in Europe

3 credit hours

Students will trace the developments of European ideas, art and culture in the Renaissance through the visual images of artists such as Michelangelo, Leonardo da Vinci, Albrecht Durer or Holbein as well as writers such as Machiavelli, Erasmus, Marguerite de Navarre or Montaigne.

3409 On the Edge of Empire: Roman Britain and the Western Provinces [CLAS 3409]

3 credit hours

Prerequisite: 6 credit hours in CLAS or 30 credit hours overall

3416 Love and Family in China

3 credit hours

Students explore how Chinese private life has intersected with the public arena from the late 19th century to the present. Key topics include affection and bonding, changing perceptions of masculinity and femininity, marriage choices and social networking, the impact of the “one-child” policy, and re-interpretations of gender roles and family life before and after the Cultural Revolution and the economic reforms since the 1980s.

3417 War and Memory in the Twentieth Century

3 credit hours

This course will explore the experience of modern war and the ways in which various twentieth-century conflicts have been remembered socially and culturally. The topics covered include the First and Second World Wars, the Holocaust, the Algerian War, the Vietnam War, and the Balkan Wars. The focus of our study of these events will be on their impact on the values, attitudes and collective memory of European and North American societies.

3451 Film and History

6 credit hours

Students explore the relationships between cinema and historical events and contexts. Although this is a 6 credit hour course, it is normally offered over one term. Students should expect a significantly larger workload when compared to a three credit course.

3460 Issues in Modern Irish History [IRST 3460]

3 credit hours

This course will examine a range of topics that have been the focus of debate in Irish History. The issues to be explored will be selected by the instructor and may include such topics as: the history of the Irish Plantations, the affects of the Penal Laws, the consequences of the 1798 Rebellion, the rise of Irish Nationalism, the causes of the Great Famine, the consequences of mass Irish Emigration, the position of women in Irish society, and the significance of the Easter Rising. In addition to providing an understanding of some of the major issues in Modern Irish History, the course will also provide an overview of historical change in Ireland from the sixteenth to the twentieth centuries.

3465 Scotland's Histories

3 credit hours

This course examines Scottish historiography in order to illustrate the development of Scotland's competing identities from the early modern period to the present. Tensions along regional, ethnic, gender and class lines will be highlighted. Contemporary associations such as: Golf, whisky, Mary Queen of Scots, sober Presbyterians, the Highland Clearances, Glasgow's football rivalry, and Trade Union radicals will be discussed.

3470 The British Black Atlantic [ACST 3470]

3 credit hours

The term the "Black Atlantic" has been used to describe the interconnected nature of Black communities in the Atlantic world. This course examines the British dimension of that transatlantic experience. Among topics covered are: Britain's involvement in African slavery, the migration of Black Loyalists to Nova Scotia and Sierra Leone, and the nature of the Black community in the United Kingdom.

3475 Indigenous and Settler Histories

3 credit hours

Relations between indigenous peoples and settler societies have been problematic wherever European colonization has taken place. Students study how these relationships have evolved over time with a view to developing a historical understanding of contemporary issues.

3480 Afro-Brazilian History

3 credit hours

This course analyses Brazil's role in the Atlantic World from the sixteenth to the twentieth centuries, focusing on socioeconomic and political issues related to Afro-Brazilian History. Topics include the colonial economy, slavery, the movement for independence and its failure to bring about change, the consequences of colonialism, as well as the impact of industrialization, urbanization, and immigration on the social conditions of Afro-Brazilians.

3500 History Field Course

3 credit hours

Students are introduced to the application of archaeological method and theory to the study of history through a series of case studies. These case studies will focus on various periods in the history of Nova Scotia, paying particular attention to marginal and marginalized groups with respect to the historical record. Students travel to and study sites within the province of Nova Scotia, and make use of relevant archives. The case studies vary from year to year.

3505 Museum Studies [CLAS 3505]

3 credit hours

Students are introduced to the world of museums and museum studies. They will learn about the history of museums, the constantly evolving purpose of such institutions, particularly during the twentieth century and in the contemporary world, their role in public education, archival and collections management, exhibitions, funding models, governance, and current debates in the field. This course is a combination of seminars and site visits to museums, which will require that students engage with the museum community in Nova Scotia.

3826 – 3849 Special Topics in History

3 credit hours

The subject matter of these courses will be announced from time to time. They will focus on particular historical themes and/or specific chronological periods. The topics to be examined will be determined by the course instructor.

3876 – 3899 Directed Study in History

3 credit hours

4000-LEVEL COURSES ARE DESIGNED FOR THE ADVANCED STUDY OF HISTORY. STUDENTS SHOULD HAVE EXTENSIVE UNIVERSITY EXPERIENCE BEFORE THEY ATTEMPT THESE COURSES.

4200 Women's Rights in Britain 1500-1925

3 credit hours

The rights and obligations of women in a society are often central to their status, economic power and life experience. Students examine changes in women's legal rights, entitlements and duties in England and (to a lesser extent) Wales and Scotland over the course of more than four centuries. Topics include property rights, inheritance practices, domestic violence, the gap between legal theory and social practice, the differing experiences of single, married and widowed women, female citizenship and nationality, and women suffrage.

4401 Crime in Canada

3 credit hours

In this examination of Canadian criminal justice history, subjects include: the changing definition of crime as understood by local communities and the state, law enforcement, the trial process, punishment, moral regulation and the role of gender, race, and ethnicity in shaping the development and operation of the justice system.

4431 Global History since World War II

3 credit hours

The historical development of American urban space after World War II is examined. Key themes include culture, suburbanization and neoliberalism.

4453 The American City Since 1945

3 credit hours

The historical development of American urban space after World War II is examined. Key themes include culture, suburbanization and neoliberalism.

4500 The Honours Seminar

6 credit hours

Prerequisite: admission to the final year of the honours program.

As part of this seminar, history honours students are required to submit and defend a substantial essay to be selected and prepared in conjunction with a faculty advisor.

4501 Public History

6 credit hours

Prerequisite: Students are required to have completed 24 credit hours in History with an average of 3.3, or obtain permission from the instructor.

This course introduces students both to the field of public history and to the application of history and historical methods in a variety of workplace settings. Public history, which involves the practices and presentation of history outside academia, involves a wide range of practitioners including historians, museum curators, film makers, researchers, journalists, and archivists. This course will examine the evolution of public history as a discipline since the 1960s and focus on the presentation of history in various films, exhibits and historic sites. The course content will be primarily Canadian and American examining questions about ethics, standards and audience.

The course will have both a classroom and workplace component. Seminar three hours per week plus successful completion of eight hours weekly of mentored volunteer work in a public history work setting.

4508 Seminar in Intellectual and Cultural History

3 credit hours

This interdisciplinary seminar will adopt a thematic approach in order to explore ideas in history across borders, cultures and centuries. Topics for exploration may include the media, the law, liberty, the family, gender and/or sexuality.

4519 Seminar in Modern European History

6 credit hours

A seminar on selected topics in the history of modern Europe, 1800 to present, intended for history majors and honours students. Topics to be examined will be selected by the instructor; students will be required to research and write a major paper on the topic selected, and present it to the seminar for discussion and criticism.

4520 Nazi Germany, Occupied Europe and the Holocaust

6 credit hours

In this course students will study some of the major historical and historiographical issues and debates concerning Nazi Germany, the Nazi Occupation of Europe, and the Holocaust.

4527 Biography and History

3 credit hours

This course will examine the relationship between biography and history, beginning with consideration of how far the essentials of historical methodology can be followed in biographical study. A variety of forms of biography will then be examined, including private and public approaches

to biography, autobiography, and popular biography. Specific biographical subjects will be explored in detail as case studies. The central question considered throughout will be whether biography, in any of its forms, can be considered either as a form of historical enquiry or as a valid historical source.

4530 Forced and Free Migration in Latin America

3 credit hours

This course will examine the reasons and consequences of migration in Latin America. It will emphasize the forced migration of Africans and the free migration of Europeans and Japanese to countries such as Argentina, Brazil, Chile, Cuba and Peru.

4565 Scottish Migration [ACST 4565]

3 credit hours

From the late eighteenth to the middle of the twentieth century, Scotland had one of the highest emigration rates in Europe. This seminar course will examine a wide range of literature that discusses Scottish migration to various overseas destinations in order to place the Scottish presence in Nova Scotia in historical context.

4566 Irish Migration [IRST 4566]

3 credit hours

During the nineteenth century Ireland had the highest emigration rate in Europe. In order to better understand this phenomenon, this seminar course will focus on the literature that discusses the nature of Irish migration and settlement from the eighteenth to early twentieth centuries. While the course will examine Irish immigrants in their various destinations, it will focus in particular on Irish settlement in North America.

4567 British Colonization

Migrants from the British Isles established settlements in places as far afield as Jamaica, South Africa, New South Wales and Vancouver Island. This course will examine some of the recent literature that touches on such diverse topics as: the encounter with indigenous peoples, the pioneering experience and the formation of colonial settlement identity.

4572 Memories of WW II in East Asia

3 credit hours

The memories of the War of Resistance against Japan (1937-45) in China are explored. The focus is on the relationship between history and politics, and collective and individual memories of the war.

4573 The Rise and Fall of the Japanese Empire

3 credit hours

Although a product of the same era in global history as other nineteenth- and twentieth-century empires, the Japanese Empire was more subject to distinctly Asian influences. This particular historical experience is explored through an examination of social, intellectual, and cultural concerns alongside the more usual issues involving economics and international relations.

4574 Interdisciplinary Study of Asia

3 credit hours

Students explore select topics in East Asian history in an interdisciplinary manner, after which students examine a

topic of their own choosing in consultation with the instructor. Student term papers must consider that topic from at least two different disciplinary perspectives, one being the discipline of history.

4826 – 4849 Selected Topics in History

3 credit hours

Prerequisite: permission of instructor.

As with other selected topics courses, the subject matter of these seminars will be announced from time to time. Topics to be examined will be determined by the course instructor.

Seminars concentrate on group discussion and the presentation of research papers.

4876 – 4899 Directed Readings in History

3 credit hours

Prerequisite: permission of instructor.

Each reading course will be organized by the instructor(s) involved. In general, each course will be centered round a specific theme, and the students will be expected, through their reading, to be familiar with all aspects of the chosen area. Examinations and/or papers will be required at the end of each course

Human Resource Management

Management Chairperson C. De Fuentes, C. Driscoll
 Psychology Chairperson M.Patry

Students may pursue a certificate in Human Resource Management through the Faculty of Arts, Business or Science. The Certificate may be taken as part of a degree or as a stand-alone program. Students may enroll in a Certificate in Human Resource Management with either Management or Psychology options. The regulations for the different routes follow.

The certificate has been offered for over 30 years and has been developed in cooperation with professionals in Human Resource Management. It will prepare students for the Certified Human Resource Professional (CHRP) designation. Students should be aware that as of 2011, a bachelor's degree will be one of the requirements for the CHRP designation.

Sobey School of Business

Bachelor of Commerce with Human Resource Management and Industrial Relations Major

Upon completion of 45 credit hours, Commerce students with a cumulative grade point average of 2.0 may elect to declare a major in Human Resource Management and Industrial Relations. This major is administered by the Department of Management.

Students are advised that possession of the minimum qualifications does not guarantee admission to a particular academic program. Limits to the number of students who can be in a particular program at any one time exist and depend very much on the number of faculty members available in a particular academic unit.

Year 1

CISY 1225 Introduction to Computer Applications
 ECON 1201 Principles of Economics: Micro
 ECON 1202 Principles of Economics: Macro
 ENGL 1205 Introduction to Literature
 MGMT 1281 Introduction to Business Management
 MGSC 1205 Quantitative Methods I
 MGSC 1206 Quantitative Methods II
 Nine (9) credit hours in non-Commerce electives

Year 2

ACCT 2241 Introductory Financial Accounting
 ACCT 2242 Introductory Managerial Accounting
 CMLW 2201 Legal Aspects of Business - Part I
 COMM 2293 Communications
 MGSC 2207 Introductory Statistics
 MGMT 2383 Organizational Behaviour Micro
 MGMT 2384 Organizational Behaviour Macro
 MKTG 2270 Introduction to Marketing
 ECON 3340 Human Resource Economics
 Three (3) credit hours in non-Commerce electives

Year 3

*ACCT 3332 Planning and Control
 FINA 2360 Business Finance I
 FINA 3361 Business Finance II
 *MGMT 3385 Human Resource Management
 *MGMT 3386 Industrial Relations
 MGMT 3480 Ethical Responsibilities of Organizations
 Twelve (12) credit hours in free electives

Year 4

*MGMT 4482 Staffing and Selection
 *MGMT 4483 Management Skills I
 *MGMT 4485 Wage and Salary Administration
 *MGMT 4486 Training and Development
 MGMT 4489 Strategic Management
 Twelve (12) credit hours in non-Commerce electives
 Three (3) credit hours in free electives

Note: A minimum GPA of 2.2 out of 4.3 is required in ACCT 3332, MGMT 2383, MGMT 2384, MGMT 3385, MGMT 3386, MGMT 4482, MGMT4483, MGMT 4485 and MGMT 4486 (as indicated above by *).

Certificate in Human Resource Management

NOTE: Students from one department may be eligible to take equivalent courses in the other department. This will be determined on a course-by-course basis and must have the approval of both the program chair in the student's home department and the instructor.

Management Option

Students may complete the Certificate alone. Students with courses from previous post-secondary study will be assessed according to the advanced standing procedures of the University (Academic Regulation 20). To be awarded the Certificate, at least fifteen (15) credit hours of the compulsory courses must be completed at Saint Mary's University. Credit will not automatically be recognized for university courses completed more than ten (10) years prior to the students return to university study.

A minimum cumulative grade point average of at least 2.00 in the Human Resource Management Certificate Program courses is required for graduation with the Certificate.

Students must complete the following 30 credit hours of core courses:

- MGMT 1281 Introduction to Business Management
- MGMT 2383 Micro Organizational Behavior
- MGMT 2384 Macro Organizational Behavior
- MGMT 3385 Human Resource Management
- MGMT 3386 Industrial Relations
- MGMT 3392 Occupational Health & Safety
- MGMT 4482 Staffing and Selection
- MGMT 4485 Wage and Salary Administration
- MGMT 4486 Training and Development
- MGMT 4488 International Business Management

Faculties of Arts and Science

Combined Major in Psychology and Certificate in Human Resource Management -Psychology Option

Students who major in Psychology as part of either a Bachelor of Arts or Bachelor of Science degree may also obtain a certificate in Human Resource Management by selecting an appropriate set of multidisciplinary courses. The combined program offers students a sound foundation in basic and applied topics relevant to a career or graduate training in the field of Human Resource Management and related areas. Students who enrol in this program are required to take thirty (30) credit hours as specified below. Students should be aware that they may need to take appropriate prerequisite courses before pursuing several of the required courses.

Students who enrol in this combined program are advised to consult the Department of Psychology for detailed information on a prescribed sequence of courses that will allow them to satisfy both the major and certificate requirements within their specific degree program.

Psychology Option

Students may enroll in the certificate program in Human Resource Management as a stand-alone program, either prior to completing or following completion of a bachelor's degree.

The requirements for the stand-alone program are identical to those for the combined major and certificate program. Students without previous university coursework may have to complete prerequisites that are specified for each course, in addition to the required courses. Students with previous university experience may receive up to 15 credit hours for courses that are similar to those required for the certificate.

Please note that some core may have prerequisites that are not part of the Certificate.

Students must complete the following thirty (30) credit hours of core courses.

- MGMT 1281 Introduction to Business Management
- MGMT 3385 Human Resource Management
- MGMT 3386 Industrial Relations
- MGMT 3392 Occupational Health & Safety
- MGMT 4485 Wage & Salary Administration
- PSYC 3430 Cross-Cultural Psychology
- PSYC 4425 The Psychology of Organizational Development
- PSYC 4426 Personnel Training and Development
- PSYC 4427 Organizational Psychology
- PSYC 4428 Personnel Psychology

Indigenous Studies

For further information, contact the Arts Advising Centre.

A minor in Indigenous Studies is available to undergraduate students in all three faculties. This minor offers students flexibility in their choice of disciplinary areas of study while promoting a broad interdisciplinary understanding of Aboriginal / Indigenous topics.

Minor Program (interdisciplinary)

As in interdisciplinary minor, students are required to earn 24 credit hours with a minimum GPA of 2.00 in Indigenous relevant courses with no more than 12 credit hours from any one discipline or interdisciplinary area and no more than 12 credit hours at the 1000 level.

Applicable courses are posted through the Faculty of Arts web site at <http://www.smu.ca/academics/arts-minor-in-indigenous-studies.html>. For students pursuing this minor courses are approved by the Program Coordinator through the BA Advising Centre.

The courses below form a partial list of approved courses for the Indigenous Studies Minor. Other courses may be eligible for credit – please consult the BA Advising Centre. Please note that not all courses below are offered every year, and some courses may have prerequisites.

Anthropology

ANTH 2273 Who Owns the Past?
 ANTH 2311 Ethnology: Melanesia
 ANTH 2316 Indigenous Peoples of Canada
 ANTH 3371 Prehistory of Canada

ANTH 3379 The Archaeology of Acadia
 ANTH 3396 Language Issues in Canada [LING 3396]

Atlantic Canada Studies

ACST 1207 Mi'kmaq Language - Introductory I
 ACST 1208 Mi'kmaq Language – Introductory II
 ACST 2341 Atlantic Provinces History, to Confederation [HIST 2341]
 ACST 3345 First Nations of the Atlantic Region
 ACST 4543 Indigenous Peoples in Atlantic Canada: Contemporary Issues

English

ENGL 2461 Mi'kmaq Storytelling and Literature
 ENGL 3521 North American Indigenous Literature: United States
 ENGL 3522 North American Indigenous Literature: Canada
 ENGL 4465 Indigenous Literature Seminar
 ENGL 4466 Representations of Indigenous Womanhood

History

HIST 2341 Atlantic Provinces History, to Confederation
 HIST 3475 Indigenous and Settler Histories

Religious Studies

RELS 3354 Aboriginal Peoples, Religion, and the Justice System

Sociology

SOCI 3220 Race, Racism and Colonialism [CRIM 3220]
 SOCI 4570 Indigenous Politics and Settler Colonialism

Intercultural Studies (ICST)

Undergraduate Program Coordinator	Myles McCallum, Modern Languages and Classics
Professor	S. Beaulé, J. Plews
Associate Professors	A. Avdulov, R. Bannerjee, C. Beaupré, E. Tsedryk
Assistant Professors	A. Arteaga, A. Barclay, J. Defert
Senior Lecturer:	S. McGuire

Description of the Program

Intercultural Studies focus on the study of cultures in contact, i.e. the dynamic processes generated by interactions between cultures at various levels, from individual interrelations to interactions between individuals within a group and group interrelations within and with the rest of society. More specifically, Intercultural Studies look at an array of psychological, cultural, institutional, and social processes, changes, and transformations resulting from interactions and interrelations between cultures.

Intrinsically interdisciplinary, the new Intercultural Studies degree program at Saint Mary's University is, at its core, based on language study and acquisition as a means of immersing oneself in and understanding culture. From a practical perspective, Intercultural Studies provide the theoretical knowledge to develop efficient strategies for successful interactions with colleagues, customers, clients, students, and acquaintances from different sociocultural backgrounds – regionally, nationally, and globally.

The program is based on a balanced approach where students will develop language and cultural proficiency in two language areas other than their first language as well as theoretical knowledge related to culture and communication.

Regulations for Majors

To major in Intercultural Studies, students must complete forty-five (45) credit hours, including the following:

1. ICST 1000, ICST, 2000, and ICST 4000
2. Twenty-four (24) credit hours in Language and culture courses with advanced proficiency in one language and intermediate proficiency in another language other than the first language.
3. PSYC 3430: An examination of theory, methods, and research in cross-cultural psychology.
4. Nine (9) credit hours from the list of the Recommended Course Requirements with three (3) credit hours in three of the four themes proposed at the 2000 level or above. The list of recommended courses is given below.

Language and culture courses

Chinese Language Courses:

CHNS 1101 Introductory Modern Chinese I
 CHNS 1102 Introductory Modern Chinese II
 CHNS 2200 Intermediate Modern Chinese
 CHNS 3300 Advanced Oral and Written Chinese I
 CHNS 3301 Advanced Oral and Written Chinese II

Chinese and Asian Culture Courses:

ASNT 1105 Introduction to Chinese Culture
 ASNT 1107 Introduction to Korean Culture
 ASNT 3300 Multidisciplinary Study of Asia
 ASNT 3826 Selected Topics in Asian Studies (depends on the class and can be taken for ICST credit with permission of Departmental Chairperson)
 ASNT 4400 Seminar in Asian Studies

French Language Courses:

FREN 1111 Beginners French Level I
 FREN 1112 Beginners French Level II
 FREN 2201 Basic University Level French I
 FREN 2202 Basic University Level French II
 FREN 2235 Intermediate French Level I
 FREN 2236 Intermediate French Level II
 FREN 3307 Advanced French Language Skills I
 FREN 3308 Advanced French Language Skills II
 FREN 3320 French Phonetics [LING 2321]
 FREN 3335 French for Business
 FREN 4400 French Speech Strategies: Perfecting Oral Skills

French Culture Courses:

FREN 2200 Oral Traditions in the Francophone World
 FREN 2260 Francophone Cultures Through Film
 FREN 2300 French Film Comedy
 FREN 3310 Introduction to French Culture
 FREN 3312 Introduction to Quebec Culture
 FREN 3350 Introduction to Literature Written in French I
 FREN 3351 Introduction to Literature Written in French II
 FREN 4410 La France en chansons
 FREN 4418 French 19th Century Literature
 FREN 4433 Women's Literature in France
 FREN 4451 Québécois Literature I
 FREN 4452 Québécois Literature II
 FREN 4460 French 20th Century Literature
 FREN 4463 French and Francophone Cinemas

German Language Courses:

GRMN1101 Introduction to the German Language I
 GRMN1102 Introduction to the German Language II
 GRMN2201 Intermediate German I
 GRMN2202 Intermediate German II

German Culture Courses:

GRMN 3306 German Culture and Civilization
 GRMN 3307 Introduction to German Literature
 GRMN 3308 Modern German Culture
 GRMN 3309 Contemporary German Culture

Irish and Scottish Gaelic Language Courses:

IRST 1201 An Introduction to Modern Irish
 IRST 1202 Modern Irish Language
 IRST 1203 Scottish Gaelic – Introductory I
 IRST 1204 Scottish Gaelic – Introductory II
 IRST 2325 Intermediate Irish I
 IRST 2326 Intermediate Irish II
 IRST 2327 Scottish Gaelic – Intermediate I
 IRST 2328 Scottish Gaelic – Intermediate II

Irish Culture Courses:

IRST 1215 Ireland: An Introduction
 IRST 1216 Ireland: Culture and Society
 IRST 2350 The Irish Musical Tradition
 IRST 3325 The Irish and Atlantic Canada
 IRST 3333 Ireland in Film
 IRST 3460 Issues in Modern Irish History
 IRST 3787 Ireland in an Age of Globalization
 IRST 4451 Gender and Irish Drama
 IRST 4566 Irish Migration

Japanese Language Courses:

JPNS1100 Introductory Japanese
 JPNS2200 Intermediate Japanese
 JPNS3300 Advanced Oral and Written Japanese I
 JPNS3301 Advanced Oral and Written Japanese II

Japanese Culture Courses:

ASNT 1106 Introduction to Japanese Culture
 ASNT 3849 Selected Topics: Japanese Aesthetics

Spanish Language Courses:

SPAN 1100 Introduction to the Spanish Language
 SPAN 2204 Intermediate Spanish I
 SPAN 2205 Intermediate Spanish II
 SPAN 2206 Intermediate Spanish Communication Skills
 SPAN 3303 Advanced Oral and Written Spanish I
 SPAN 3306 Advanced Oral and Written Spanish II
 SPAN 3307 Advanced Spanish Conversation through Film
 SPAN 3309 Intro to Spanish Translation

Spanish Culture Courses:

SPAN 3310 Latin America Culture
 SPAN 3312 Introduction to Latin American Literature
 SPAN 3313 20th Century Latin American Literature
 SPAN 3314 Development and Dystopias in Latin America
 SPAN 3320 Latin American Travel Literature
 SPAN 3330 Diablos and Fiestas in Latin American Folklore
 SPAN 4400 Posttraumatic Literature in Latin America
 CRIM 4515 Drugs and power in Latin America
 HIST 2250 Soccer a History of Brazil
 HIST 2251 Pop culture in Latin America
 HIST 4530 Forced and free migration in Latin America

Classical Language Courses (Ancient Greek and Latin):

GREK 1100 Introduction to Ancient Greek
 GREK 2200 Intermediate Ancient Greek
 LATN 1100 Introduction to Latin
 LATN 2202 Intermediate Latin I
 LATN 2203 Intermediate Latin II

Classics Culture Courses:

CLAS 1001 Ancient Civilizations of the Near East and Egypt
 CLAS 1002 Ancient Civilizations of Greece and Rome
 CLAS 1003 Material Culture from Prehistory to the Middle Ages
 CLAS 2451 Greek History I: From Minos to the Medes [HIST 2451]
 CLAS 2452 Greek History II: The Golden Age of Greece [HIST 2452]

CLAS 2453 Republic and Revolution: Roman History I [HIST 2453]
 CLAS 2454 Bloody Caesars: Roman History II [HIST 2454]
 CLAS 2455 Ancient Empires
 CLAS 2500 War and Society in the Ancient Mediterranean [HIST 2500]
 CLAS 3310 Classical Literature [ENGL 3310]
 CLAS 3352 Women and Family in Ancient Greece [WMST 3352]
 CLAS 3409 On the Edge of Empire: Roman Britain and the Western Provinces [HIST 3409]
 CLAS 3420 International Relations Eastern Mediterranean Style

Intercultural Studies Required Core Courses**ICST 1000 Intercultural Communication**

3 credit hours

Students are introduced to the study of intercultural communication in domestic and global contexts. Students learn about the various dimensions of culture and identity. They examine how differing cultures, languages, and social patterns influence the way individuals relate among themselves as members of groups and with members of other ethnic and cultural groups. The development of interpersonal skills for communicating effectively across cultures is emphasized.

2000 Identities and Subjectivities in the Colonial and Postcolonial Era

3 credit hours

Students revisit the colonial and postcolonial era doing archaeological work on cultural representations related to gender, ethnicity, and class through literary explorations of travel narratives, colonial and postcolonial literature, and migrant literature. Students critically analyze various intercultural and transcultural encounters, experiences, and-or phenomena through engagement with literary texts, autobiographies and memoirs, documentary, and feature film.

4000 Applied Intercultural Studies

3 credit hours

Students are provided with a community-service learning component where they put in practice the knowledge and the know-how they have gained in the Intercultural Studies program. Students have different options to choose from: study-abroad programs, Community Service Learning (abroad or local), and specific projects (international volunteering, etc.) Students must submit a project proposal and a research topic. They must also demonstrate the relevance of their project to the broader context of intercultural studies and produce an academic plan highlighting the means to achieve their objectives.

Intercultural Studies Recommended Course Requirement

Students are required to take:

- PSYC 3430, and
- Nine (9) credit hours at the 2000 level or above in 3 of the 4 themes (three (3) credit hours in each of the three themes) presented below.

Theme 1: Contemporary Issues in Intercultural Studies

2000-level courses

POLI 2384 International Relations I
 PHIL 2312 Contemporary Political Philosophy
 PHIL 2325 Philosophical Issues in International Development
 IDST 2301 Introduction to Development Studies: Perspectives
 IDST 2302 Introduction to Development Studies: Policies and Practice

3000-level courses

POLI 3321 International Organizations
 SOCI 3408 Urban Sociology
 PSYC 3327 Industrial / Organizational Psychology
 GEOG 3351 Demography and Migration
 MGMT 3480 Ethical Responsibilities in Organizations
 MKTG 3375 International Marketing
 ECON 3365 International Economic Issues

4000-level courses

RELS 4100 Religion and International Development
 GEOG 4449 Tourist Geographies
 PHIL 4525 International Justice
 IDST 4470 Environment and Development
 MGMT 4488 International Business Management

Theme 2: Communities and Identities: Privileges and Underprivileged Groups

2000-level courses

SOCI 2124 Social Inequality and Justice
 ANTH 2301 Anthropology of Childhood
 GEOG 2349 Cultural Geography (Group A)
 PHIL 2385 Philosophical Issues in Feminism
 ASNT 2862 Special Topic: Indigenous Voices of Modern Asia

3000-level courses

SOCI 3387 Women and Development [WMST 3387]
 SOCI 3481 Women, Migration and Identity
 SOCI 3506 Gender, Race and Justice
 ANTH 3301 Nature of Culture
 ANTH 3303 Sex, Gender and Society
 PSYC 3307 Biological Origins of Behaviour
 PSYC 3317 Group Dynamics and Intergroup Relations
 PSYC 3329 Child Development
 PSYC 3332 Adolescent Development
 PSYC 3348 Gender Roles [WMST 3348]
 RELS 3345 Aboriginal Peoples, Religion, and the Justice System
 GEOG 3311 Rural Geography
 ACST 3321 African Nova Scotian Culture
 ACST 3830 Selected Topics: First Nations of Atlantic Canadian Region (Indigenous

Peoples of the Atlantic)

4000-level courses

POLI 4449 Current Public Policy Challenges: Gender, Race, and Class [WMST 4449]
 POLI 4451 Gender and International Relations [WMST 4451]
 SOCI 4382 Gender and International Migration [WMST4482/IDST 4452]
 SOCI 4840 Select Topic: Mapping Prejudice
 SOCI 4847 Queer Theory
 GEOG 4431 Community and Regional Development
 GEOG 4432 Social Geography of the City

Theme 3: Historical Perspectives on Cultural Representations

2000-level courses

HIST 2403 History of Canadian Culture(s)
 PHIL 2330 Philosophy of Religion

3000-level courses

HIST 3100 History of Gender, Feminism and Sexuality in Canada
 HIST 3201, The Trouble with Normal
 HIST 3833 History of the Body, Health and Sexuality [WMST3833]
 HIST 3352 Race and Racism in the United States
 SOCI 3220 Race, Racism and Colonialism
 HIST 3475 Indigenous and Settler Histories
 HIST 3480 Afro-Brazilian History
 HIST 3830 Special Topic: History of Childhood
 ANTH 3376 Archaeology of Death
 ANTH 3572 Archaeology of Empire

4000-level courses

GEOG 4412 Urban Historical Geography and Preservation

Theme 4: Language and Power

2000-level courses

ANTH 2392 Linguistic Anthropology
 ENGL 2326 Language and Gender [LING 2326]

3000-level courses

SOCI 3546 Crime and Media
 SOCI 3876 Atlantic Canadian Film and Television
 ANTH 3396 Language Issues in Canada
 PHIL 3405 Ethics of Belief / Theory of Knowledge

4000-level courses

SOCI 4432 Gender & Law
 SOCI 4827 Crime and Media Seminar
 ANTH 4365 Myth: Anthropological Approaches
 ANTH 4491 Language and Culture [LING 4491]
 ANTH 4492 Ethnography of Communication [LING 4492]
 ENGL 4427 Language, Gender, and Power
 ENGL 4494 Approaches to Discourse Analysis

International Development Studies (IDST)

Undergraduate Program Coordinator	E. Tastsoglou
Graduate Program Coordinator	K Ervine
Professor	E. Tastsoglou, S. Wein
Associate Professors	S. Dansereau, K. Ervine, G. Fridell (Canada Research Chair in IDST), A. O'Malley
Adjunct Professors	M. Bateman, W. Bello, D. Black, P. Bowles, J. Cameron, G. Foladori, M. Gultekin, J. Kirk, R. Munck, J. Petras, L. Read, L. Swatuk, T. Teivainen, J. Tellez, D. Tetreault, J. Tharamangalam, S. Theunissen, R. Delgado Wise
Professor Emeritus	H. Veltmeyer
Program Committee:	A. Arteaga, R. Bannerjee, R. Barbosa, A. Charles, C. Conrad, S. Dansereau, C. De Fuentes, M. Doucet, K. Ervine, G. Fridell, M. Gómez, R. Higgins, S. Krishnamurti, M. MacDonald (<i>ex</i> <i>officio</i>), S. Novokovic, A. O'Malley, A. Spires, E. Tastsoglou, S. Wein, M. Woodhouse, L. Zhyomirska

Note: In addition to the above, there are several other Saint Mary's faculty members teaching IDS related courses.

Graduate courses are available to students registered in the Master degree program. Other students must have approval of the IDS Undergraduate Coordinator. For information on graduate programs see the *Graduate Academic Calendar*.

International Development Studies is an interdisciplinary degree program which uses the concepts and research of many university disciplines to explain the startling and disturbing differences in human living conditions among the world's social groups, especially those found in what is commonly called the developing world.

Using the techniques and theories of social sciences and humanities disciplines, International Development Studies conducts research, assesses explanations, and engages in real world practices which seek to further our understanding and betterment of human living conditions in all countries throughout the world, but especially countries in the so-called developing world. International Development Studies has a strong orientation towards empirical research, fieldwork, and other forms of primary data acquisition and practice. However, there is also an important emphasis on creating useful understandings and explanations which help us make sense of the current human condition around the globe.

A degree in international development studies may be combined with a degree in another discipline recognized by the International Development Studies Program. Joint majors, and minors, may be arranged through consultation with the University department involved and the Coordinator

of International Development Studies Program, or his or her designate.

Students interested in IDS, including students contemplating IDS as a possible major, are encouraged to speak with the IDS Undergraduate Coordinator or a Faculty of Arts Undergraduate Advisor.

The International Development Studies Program strongly recommends that students in IDS gain competency in a second language relevant to their studies. Students are especially referred to the Certificates offered by the Department of Modern Languages. For example, students wishing to focus on the Latin America region should note that a number of courses leading towards the Certificate of Spanish Language and Hispanic Culture may also be counted towards IDST degree.

In addition to the general and basic requirements for the Bachelor of Arts degree set out by the Faculty of Arts, students taking a degree within the International Development Studies Program must fulfill the following requirements:

The Major Program

- a. The appropriate first year courses, including Faculty of Arts basic requirements, and at least six (6) credit hours from social science electives such as ANTH1202, POLI 1201, POLI 1220, SOCI 1210, or SOCI 1211, as appropriate;
- b. the equivalent of forty-eight (48) credit hours approved for the Program, as follows:
 - IDST 2301 Introduction to IDS: Perspectives
 - IDST 2302 Introduction to IDS: Policies and Practice
 - IDST 3401 Seminar in IDS: Conceptual Foundations
 - IDST 3402 Seminar in IDS: Contemporary Issues
 - IDST 3424 Research Methodology
 - IDS approved ANTH or SOCI course at the 2000 level or above
 - ECON 1202 Principles of Economics: macro
 - POLI 3314 Politics of Developing Areas
 - 12 credit hours of approved IDS-related courses at the 2000 level or above
 - 6 credit hours of approved IDS-related courses at the 4000 level
 - 6 credit hours of IDST courses at the 4000 level.

The Minor Program

The equivalent of twenty-four (24) credit hours selected from courses approved for the program, of which:

- IDST 2301 Introduction to IDS: Perspectives
- IDST 2302 Introduction to IDS: Policies and Practice

- IDS approved ANTH or SOCI course at the 2000 level or above
- ECON 1202 Principles of Economics: macro
- POLI 3314 Politics of Developing Areas
- 9 credit hours of approved IDS-related courses at the 2000 level or above

The Concentration Program

A concentration in International Development Studies in partial fulfillment of the B.A. Degree, is the same as the requirements for the IDS Minor Program.

The Honours Program

- a. To obtain an honours degree in International Development Studies, a student must first be admitted to the honours program and must then complete all requirements pertinent to the IDS honours program.

Students are encouraged to consult with the undergraduate student advisor to arrange a course schedule adequate to the demands of completing the required honours thesis. More specifically:

- (i) To be admitted to the program, a student must satisfy pertinent Faculty of Arts requirements for entry into an honours program, and must have a cumulative grade point average of 3.0 or better;
- (ii) To graduate from the program, a student must satisfy the pertinent Faculty of Arts requirements, and must complete the equivalent of sixty-six (66) credit hours in the IDS honours program as outlined in (b) below; and
- (iii) To graduate from the program, a student must also receive a minimum grade of B+ (3.30) in IDST 4500 (the Honours Seminar). Students should note that the Honours Seminar is a full year course; September entry only.
- b. For the Bachelor of Arts (Honours) degree in International Development Studies, all students must complete no fewer than sixty-six (66) credit hours, as follows:

- IDST 2301 Introduction to IDS: Perspectives
- IDST 2302 Introduction to IDS: Policies and Practice
- IDST 3401 Seminar in IDS: Conceptual Foundations
- IDST 3402 Seminar in IDS: Contemporary Issues
- IDST 3424 Research Methodology
- IDST 4500.xx and .yy Honours Seminar in IDS
- ECON 1201 Principles of Economics: micro
- ECON 1202 Principles of Economics: macro
- POLI 3314 Politics of Developing Areas
- 3 additional credit hours in approved IDS-related POLI at the 2000 level or above
- 6 additional credit hours in IDS-approved ANTH or SOCI at the 2000 level or above
- 18 credit hours of approved IDS-related courses at the 2000 level or above
- 3 credit hours of approved IDS-related courses at the 4000 level

- 6 additional credit hours of IDST courses at the 4000 level.

Students must consult with a Faculty of Arts Undergraduate Advisor or the IDS Undergraduate Coordinator regarding approval for courses not in the list of approved courses appearing below;

A typical schedule of courses for an IDS Major would be:

Year 1

- ENGL 1205 Introduction to Literature
- Six (6) credit hours from one or two of the following: PHIL 1200 (no other philosophy course satisfies this requirement); Mathematics [including MGSC 1205; MGSC 1206; and CISY 1225]
- Nine (9) credit hours from at least two of the following Humanities: Classics, History, Religious Studies, English [other than ENGL 1205], Philosophy (other than PHIL 1200), and Modern Languages courses on literature and culture
- Twelve (12) credit hours from first year courses in the following social sciences: Anthropology, Economics, Geography, Linguistics, Political Science, Psychology and Sociology, with a maximum of six (6) credits in any one area. At least one should be from ANTH 1202, ECON 1201, ECON 1202, POLI 1201, POLI 1220, SOCI 1210 or SOCI 1211.

Year 2

- IDST 2301 Introduction to International Development Studies: Perspectives
- IDST 2302 Introduction to International Development Studies: Policies and Practice
- ECON 1202 Principles of Economics: Macro
- 3 credit hours in IDS approved courses at the 2000 level or above
- 9 credit hours in Arts at the 2000 level or above
- 9 credit hours of electives

Year 3

- IDST 3401 Seminar in Development Studies: Conceptual Foundations
- IDST 3402 Seminar in Development Studies: Contemporary Issues
- IDST 3424 Research Methodology
- 3 credit hours IDS approved ANTH or SOCI course
- POLI 3314 Politics of Developing Areas
- 3 credit hours in IDS approved course at the 2000 level or above
- 9 credit hours in Arts at the 2000 level or above
- 3 credit hours of electives

Year 4

- 6 credit hours in IDS approved courses at the 2000 level or above
- 6 credit hours in IDS approved courses at the 4000 level
- 9 credit hours in Arts at the 2000 level or above
- 6 credit hours of IDST electives at the 4000 level
- 3 credit hours of electives

Approved IDS Courses

IDS offers each year its own electives, which appear in the timetable (IDST). IDS majors, minors and honours students should consider these courses first.

Winter 2018

IDST 2302 Intro. to Development Studies: Practice
 IDST 2460 Development Practice (2nd year) *
 IDST 3401 Seminar in Development: Policies and Practice
 IDST 3424 Research Methodology
 IDST 3460 Development Practice (3rd year) *
 IDST 4460 Development Practice (4th year) *
 IDST 4462 Sub-Saharan Africa: Development Issues
 History section for the 2017-2018 Academic Calendar
 IDST 4466 Urbanization and Development
 IDST 4478 Global Food Sovereignty
 IDST 4843 Conflict, Security & Development
 IDST 4850 Gender and Development
 IDST 4500 Honours Seminar II
 .*Contact the IDS Coordinator to register for the Development Practice course.

The courses below form a partial list of IDS approved courses for majors, minors and honours students in IDS.. Other courses may be eligible for IDS credit – please consult the IDS Undergraduate Coordinator. Please note that not all courses below are offered every year, and some courses may have prerequisites.

Anthropology

ANTH 2311 Ethnology: Melanesia
 ANTH 2326 Contemporary East Asia
 ANTH 2392 Linguistic Anthropology
 ANTH 3201 The Anthropology of Food
 ANTH 3304 Egalitarian Societies
 ANTH 3305 Chiefdoms
 ANTH 3309 Peasants
 ANTH 3334 Warfare and Aggression

Asian Studies

ASNT 3300 Multidisciplinary Study of Asia
 ASNT 3305 Contemporary China: Institutions and Culture

Economics

ECON 3310 Development Economics
 ECON 3315 Comparative Economic Systems
 ECON 3327 Asia Pacific Economies
 ECON 3365 International Economic Issues
 ECON 4410 Issues in Economic Development

Environmental Science

ENVS 3410 Environmental Impact Assessment
 ENVS 4440 Environmental Policy

Finance

FINA 4476 International Financial Management

History

HIST 2250 Soccer: A History of Brazil
 HIST 2317 Africa in the 20th Century
 HIST 2381 China before 1800
 HIST 2382 China in Revolution: 1800-1949
 HIST 2383 China since 1949

HIST 2393 History of Vietnam
 HIST 3402 Aspects of Global History
 HIST 3480 Afro-Brazilian History
 HIST 4530 Forced and Free Migration in Latin America

Management

MGMT 4488 International Business Management
 MGMT 4494 Entrepreneurship: Theories and Concepts

Marketing

MKTG 3375 International Marketing

Philosophy

PHIL 2325 Philosophical Issues in Int'l Development
 PHIL 4525 International Justice

Political Science

POLI 1260 Politics and Development: People, Ideas and Goods
 POLI 2305 International Relations
 POLI 3314 Politics of Developing Areas
 POLI 3315 Canadian Foreign Policy
 POLI 3321 International Organization
 POLI 3322 Global Political Economy
 POLI 3425 Spying and International Politics
 POLI 3456 Issues in International Security
 POLI 4402 Model United Nations
 POLI 4451 Gender and International Relations
 POLI 4493 Global Social Movements

Religious Studies

RELS 3348 Religion & Ecological Issues In the Developing World
 RELS 4100 Religion and International Development

Sociology

SOCI 4382 Gender and International Migration

Spanish

SPAN 3304 The Changing Face of Latin America
 SPAN 3310 Latin America Culture
 SPAN 4400 Posttraumatic Literature in Latin America

Course Descriptions**2301 Introduction to Development Studies: Perspectives**

3 credit hours

Prerequisite: one of ANTH 1202, ECON 1201/1202, POLI 1201, POLI 1220, or SOCI 1210 and SOCI 1211.

This course introduces students to the nature and scope of development studies as an interdisciplinary field. The course explores the definitions of development, development explanations of poverty and prosperity in many regions of the world and examines a wide spectrum of problems that confront the so-called developing world.

2302 Introduction to Development Studies: Policies and Practice

3 credit hours

Prerequisite: IDST 2301.

This is a continuation of IDST 2301, and explores real-world, past and current development policies and how they

are formulated and applied to specific development problems through programs, institutional practices, or community initiatives. It examines the role of the state, local community organizations, and other actors who contribute to the policy-making process and critically analyzes policy successes and failures.

2325 Philosophical Issues in International Development [PHIL 2325]

3 credit hours

2460 Development Practice

3 credit hours

Prerequisites: IDST 2301/2302 and permission of the IDS Program Coordinator

In this experiential learning course students have an opportunity to link development theory and development practice, and to integrate their IDS classroom learning with their experience of developing society realities.

3348 Religion and Ecological Issues in the Developing World [RELS 3348]

3 credit hours

3386 Sociology of Developing Societies [SOCI 3386]

3 credit hours

3401 Seminar in Development Studies: Conceptual Foundations

3 credit hours

Prerequisite: IDST 2302.

This is a core IDST mixed lecture/seminar course which examines key concepts, perspectives and theoretical approaches to dealing with issues affecting developing countries, such as industrial development, rural development, economic prosperity, community development etc. The acquisition by students of an analytical and critical assessment of these approaches will be strongly emphasized through readings, presentations, group study and lectures.

3402 Seminar in Development Studies: Contemporary Issues

3 credit hours

Prerequisite: IDST 3401.

A continuation of the core IDST 3401 lecture/seminar. In this course students will research and analyze selected problems of development in Africa, Asia, Latin America and the Caribbean, Oceania, or Middle East/North Africa. Students will read and discuss a common body of readings, discussing existing programs, policy implications, and contemporary development practices and write one or more major research papers.

3424 Research Methodology

3 credit hours

Prerequisite: IDST 2302

Students will leave this course with the basics of research design and will acquire proficiency in the quantitative and qualitative data collection and manipulation techniques that can be applied to a selected range of development problems.

3460 Development Practice

3 credit hours

This experiential learning course will provide students with an opportunity to link development theory and development practice. This may take many forms, such as acting as a volunteer with an NGO or community-based organizations, pursuing an internship with a multilateral agency, or other forms of University and Program-approved field experience overseas, or, with approval, in Canada.

4120-4123 Development Studies Field School

3 credit hours

Prerequisite: IDST 2302 or permission of the instructor.

This course involves hands on, experimental learning and field work. Trip destinations may vary in different years according to faculty interests and opportunities as they arise. Students will be required to attend orientation and preparation classes before the trip, and to complete assigned course work after the trip.

Teaching will combine seminars and lectures with guest lectures from local community and government leaders and/or field trips to local sites.

4460 Development Practice

3 credit hours

Prerequisites: IDST 2301/2302 and permission of the IDS Program Coordinator

In this experiential learning course students have an opportunity to link development theory and development practice, and to integrate their IDS classroom learning with their experience of developing society realities.

4461 South East Asia: Contemporary Development Issues

3 credit hours

Prerequisite: IDST 2302 or permission of instructor.

This course explores development issues in the context of South East Asia, focusing on the nation-state and its development strategies, as well as broader, regional issues of economic and social development. Issues include the emergence of high- growth rate, newly-industrializing countries, the impact of the Asian financial crises and globalization. The course will begin from the perspective of common colonial roots and identify the current sub-regional models of development. The course will explore current alternative approaches articulated by Asian scholars and grassroots organizations. (Note: this course is cross-listed with Asian studies at the undergraduate level.)

4462 Sub-Saharan Africa: Contemporary Development Issues

3 credit hours

Prerequisite: IDST 2302 or permission of instructor.

This course explores development issues specific to Sub-Saharan Africa, focusing on the nation-state and its colonial past, development strategies, and a spectrum of broader issues of economic and social development. Such issues include the impact of structural adjustment, efforts toward political democratization and the ongoing presence of

traditional forms of social organization. The overall objective is to present the dynamic nature of the current policy debates as they are being articulated and challenged by a variety of actors in the region, including African scholars and grassroots organizations.

4463 Latin American: Contemporary Development Issues

3 credit hours

Prerequisite: IDST 2302 or permission of instructor.

This course explores central development issues in Latin America, focusing on the nation-state and its development strategies, as well as broader issues of economic and social development. Such issues include the impact of globalization and liberalization, efforts towards political democratization including the role of popular organizations and alternative approaches articulated by Latin American scholars and grassroots organizations. Sub-regional differences will be discussed and compared.

4465 Labour and Development

3 credit hours

Prerequisites: IDST 2301/2302

Labour conditions and the role of labour in social change are key issues in the study of international development. Exploration of these topics will link to issues of changing production patterns in developing countries, changing labour and social conditions as well as issues around labour organization and their participation in political and economic processes.

4466 Urbanization and Development

3 credit hours

Prerequisites: IDST 2301/2302

Students will be introduced to the special development problems associated with urbanization in developing societies, the broad spectrum of complex challenges arising from rapid urban development (rural-urban migration, formation of slums) and the development dynamics which serve to perpetuate the complex relationship between urban, suburban, peri-urban, and rural spaces in developing societies.

4470 Environment and Development

3 credit hours

Prerequisite: IDST 2302, or permission of instructor.

This seminar will explore the implications for world economic and social development of environmental problems, as well as the question of what mainstream economic development might mean in the context of tackling the growing disruption of the global ecosystem. Along with an in-depth discussion of the possible ecological outcomes of environmental modification, the importance of a sociological and political-economic analysis of the problems of environmental disruption and change will be emphasized.

4472 Trade and Development

3 credit hours

Prerequisites: IDST 2301/2302

Students will examine trade and development, not solely as a technical or policy issue, but as a political, economic, and ideological package rooted in complex social forces.

Students will assess the dominant trade regime as well as a variety of trade alternatives from new South-South trade relations to fair trade.

4473 Comparative Perspectives on Innovations in Education – Reforms [EDUC 4473]

3 credit hours

Prerequisite: at least thirty (30) credit hours of University courses.

This course will assess, compare and contrast variations and reforms to mainstream educational systems, and will emphasize the conditions out of which such reforms are initiated. Special emphasis will be given to contrasting public systems of education with privatization initiatives, together with public/private partnerships and changes that affect access to education, gender and education, and so on. This course will draw on the considerable body of literature and concrete case studies throughout the world; however, considerable emphasis will be given to examples and case studies from the regions or sub-regions of Asia, Africa, Latin America and the Middle East/North Africa.

4474 Comparative Perspectives on Innovations in Education – Alternatives [EDUC 4474]

3 credit hours

Prerequisite: at least thirty (30) credit hours of University courses.

Students will seek to understand the material and social conditions, practical initiatives, rationale and outcomes of radical alternatives to mainstream education and mainstream educational reforms. Above and beyond in-depth discussions of perspectives on informal and non-formal educational systems, the works of Illich, Freire, and other educational radicals will be discussed, as will the concepts of intercultural bilingual education, social capital education, and other alternative conceptions of education. The course is a forum for the discussion and deeper understanding of the relation between the larger social, political and economic structure and the educational goals and objectives of radical education alternatives. Considerable emphasis will be given to examples and case studies from the regions or sub-regions of Asia, Africa, Latin America, and the Middle East/North Africa.

4476 Education and Development I: Perspectives [EDUC 4476]

3 credit hours

Introduction to concepts and analysis underlying a comparative understanding of selected educational systems around the world. The course will emphasize comparisons between mainstream educational understandings in the developed world, the agenda of international education organizations, international educational funders, and the implementation of educational systems, both public and private. Specific reference will be made to access to education, curriculum and culture, gender and education, and similar issues with an emphasis on examples from the so-called *developing world* in Asia, Africa, Latin America and the Middle East/North Africa.

4477 Education and Development II: Policies and Practices [EDUC 4477]

3 credit hours

Prerequisite: IDST 4476

A continuation of IDST 4476. Examination and comparison of educational policies in selected countries or regions of the world with a view to assessing educational outcomes, education processes and the relation between education, the public sector, the private sector and international organizations, and the effect of such policies worldwide. Emphasis is on Asia, Africa, Latin America and the Middle East/North Africa.

4500 Honours Seminar in Development Studies

6 credit hours

Prerequisite: IDST 3401 and 3402.

Students registered in the International Development Studies Honours Program will use this seminar as an on-going forum in which to complete the required honours thesis. Using a sequence of assignments, discussions, and seminar presentations the student will be introduced to the requirements of conducting empirical research and advanced undergraduate scholarly research writing.

The student's overall grade for this seminar will be the average of the thesis grade (provided by the thesis advisor) and the seminar instructor's grade for honours seminar participation (minimum of B+).

4518 Introduction to International Comparative Education: Perspectives [EDUC 4518]

3 credit hours

Prerequisite: at least thirty (30) credit hours of University courses.

Introduction to concepts and analysis underlying a comparative understanding of selected educational systems around the world. The course will emphasize comparisons between mainstream educational understandings in the developed world, the agenda of international education organizations, international educational funders, and the implementation of educational systems, both public and

private. Specific reference will be made to access to education, curriculum and culture, gender and education and similar issues with an emphasis on examples from the so-called developing world in Asia, Africa, Latin America and the Middle East/North Africa.

4528 Introduction to International Comparative Education: Policies [EDUC 4528]

3 credit hours

Prerequisite: at least thirty (30) credit hours of University courses and IDST 4518 or permission of Instructor

This course is a continuation of IDST 4518. Examination and comparison of educational policies in selected countries or regions of the world with a view to assessing educational outcomes, educational processes and the relation between education, the public sector, the private sector and international organizations, and the effect these policies have had, or are having worldwide, with emphasis on the regions or sub-regions of Asia, Africa, Latin America and the Middle East/North Africa.

4826 – 4849 Special Topics in Development Studies

3 credit hours

Prerequisite: IDST 2302.

These courses will investigate in-depth a particular topic or set of topics in Development Studies. The specific topic(s) will vary from year to year, depending on the availability of visiting scholars, invited research fellows, or the research plans of associated faculty.

4876 – 4899 Directed Study

3 credit hours

Prerequisite: IDST 2302, or permission of Coordinator.

These courses provide an opportunity for students to pursue advanced study individually with resident or adjunct faculty concerning topics not normally covered by regular course offerings. Students are expected to demonstrate initiative and independence and will normally produce a substantial written document such as an annotated bibliography summarizing their literature research.

Irish Studies (IRST)

Program Coordinator S. Kennedy, English
D'Arcy McGee Chair of Irish Studies P. Ó Siadhail
Adjunct Professor J. White

The D'Arcy McGee Chair of Irish Studies was established at Saint Mary's University by Dr. Cyril J. Byrne in the spring of 1986 to form a focal point for the study of all aspects of Irish and Irish-Canadian culture, particularly language, literature, history, political science and folklore. Saint Mary's is the only University in Canada where you can complete an undergraduate degree in Irish Studies.

The Major Program

To obtain a major in Irish Studies, forty-two (42) credit hours are required, including:

IRST 1201 An Introduction to Modern Irish
IRST 1202 Modern Irish Language
IRST 2325 Intermediate Irish I
IRST 2326 Intermediate Irish II
IRST 3460/HIST 3460 Issues in Modern Irish History
IRST 3470 Irish Studies Seminar

Plus twenty-four (24) credit hours, twelve (12) credit hours of which must be at the 3000 level and approved by the Coordinator of Irish Studies.

The Minor Program

The following program constitutes a minor in Irish Studies according to the "Requirements for the Degree of Bachelor of Arts" as stated above in Section 3:

Six (6) credit hours in IRST at the 1000 level
Plus eighteen (18) credit hours approved by the Coordinator of Irish Studies.

The Concentration Program

To obtain a concentration in Irish Studies in partial fulfillment of the B.A. General degree (i.e., one with Double Arts Concentrations and a minimum of ninety (90) credit hours), a minimum of twenty-four (24) credit hours in IRST is required; also a minimum cumulative grade point average of 2.00. Further details are available from the coordinator.

Course Descriptions

1201 An Introduction to Modern Irish

3 credit hours

This course will introduce students to Modern Irish, with emphasis on the spoken and written forms.

1202 Modern Irish Language

3 credit hours

Prerequisite: IRST 1201 or permission of instructor.

This course will develop the student's ability to speak, write and read Modern Irish.

1203 Scottish Gaelic - Introductory I [ACST 1203]

3 credit hours

This course gives the student an introduction to the structure and use of Scottish Gaelic in a Nova Scotia context. Topics covered include grammar and conversation basics, traditional and new Gaelic songs, and conversation aimed at specific social occasions and locations.

1204 Scottish Gaelic - Introductory II [ACST 1204]

3 credit hours

Prerequisite: IRST 1203.

This course gives the student a continuation of the introduction to the structure and use of Scottish Gaelic in a Nova Scotia context. Topics covered include grammar and conversation basics, traditional and new Gaelic songs, and conversation aimed at specific occasions and locations.

1215 Ireland: An Introduction [HIST 1215]

3 credit hours

The course is designed to provide students with a general introduction to Ireland through a survey of the island's history. Although it is situated on the fringes of Europe, Ireland was influenced by developments on the continent from the earliest times. In addition, the later experience of overseas migration connected Ireland to developments across the Atlantic and beyond. This course will pay particular attention to how Ireland's history reflects these broader European and transatlantic connections.

1216 Ireland: Culture and Society

3 credit hours

This course, which complements IRST 1215, seeks to expand students' understanding of the complexity of the Irish experience. Areas covered in this course include: Women in Ireland; the Irish abroad (with special emphasis on the Irish in Canada); Ireland in a European context; the Celtic Tiger; Northern Ireland in the post-Belfast Agreement period; sport in Ireland; and the Irish and film. This survey is aimed at both Irish Studies students and those who have a general interest in Ireland.

2325 Intermediate Irish I

3 credit hours

Prerequisite: IRST 1201 and 1202.

A continuation of elementary Irish, with emphasis placed on students attaining a firm grasp of spoken Irish. In addition, students will continue their study of the history and development of the Irish language.

2326 Intermediate Irish II

3 credit hours

Prerequisite: IRST 2325 or permission of instructor.

Building upon the skills acquired while studying elementary Irish and Intermediate Irish I, students will concentrate on refining their command of the Irish language. A variety of aural sources and written texts will be used.

2327 Scottish Gaelic - Intermediate I [ACST 2327]

3 credit hours

Prerequisite: IRST 1203 and 1204.

This course gives the student an opportunity to advance from the introductory level in a structured environment. Topics covered include a review of grammar and conversation basics. Time will be spent on composition of short stories, translation of written and recorded Gaelic, traditional and new Gaelic songs, and poetry and conversation aimed at specific social occasions and locations.

2328 Scottish Gaelic - Intermediate II [ACST 2328]

3 credit hours

Prerequisite: IRST 2327 or equivalent.

This course gives the student an opportunity to advance from the introductory level in a structured environment. Topics covered include a review of grammar and conversation basics. Time will be spent on composition of short stories, translation of written and recorded Gaelic, traditional and new Gaelic songs, and poetry and conversation aimed at specific social occasions and locations.

2346 A Sociolinguistic History of Ireland [LING 2346]

3 credit hours

Prerequisite: at least six (6) credit hours in IRST, ENGL, LING or HIST

This course charts the history and development of language in Ireland from earliest times to the present. Students learn about the origins and growth of Irish, the influence on it of Latin, Norse and English, and the emergence of Hiberno-English. A series of texts which demonstrate the changing linguistic landscape of Ireland and the interrelationship of languages are considered.

2350 The Irish Musical Tradition

3 credit hours

A survey of Irish folk music from pre-Christian times to the twentieth century. Areas under investigation shall include folk music as it relates to the wider background of Irish history; folk instruments; song-airs and singers; the structure and ornamentation of Irish folk music; and the role of Irish folk music in its nation's current musical scene. A knowledge of musical notation and terminology is not a prerequisite.

2391 Geography of Ireland [GEOG 2390]

3 credit hours

2520 Irish Folklore [ENGL 2520]

3 credit hours

A comprehensive study of folklore in Ireland. All aspects of folklore will be examined, with special emphasis on the storytelling, song, and folk drama traditions.

3325 The Irish and Atlantic Canada [ACST 3325]

3 credit hours

Prerequisite: 30 credit hours and ACST 1000 or permission of instructor

This interdisciplinary course will offer a survey of the history and culture of people of Irish descent in the Atlantic Region. Topics will include Irish settlement in the Atlantic Region, religion and politics, sectarian conflict, social status, community organizations and contemporary Irish identity in the Atlantic Region.

3333 Ireland in Film

3 credit hours

Prerequisite: At least 6 credit hours in IRST, FILM, ENGL or HIST

Beginning with a survey of the history, development and current state of Irish cinema, this course will primarily focus on literary works that have been adapted for the screen. Students will consider a selection of early 20th century texts, such as Maurice Walsh's 'The Quiet Man,' and James Joyce's 'The Dead,' as well as examples of recent fiction, such as the work of William Trevor, Elizabeth Bowen, Roddy Doyle and Patrick McCabe that have subsequently been filmed.

3443 Irish Poetry [ENGL 3443]

3 credit hours

This course examines poetry in Ireland from 1890 to the present, beginning with W.B. Yeats and the Literary Revival, and concluding with the poetry of the Northern renaissance.

3453 Irish Drama in the 20th Century [ENGL 3453]

3 credit hours

This course studies Irish drama from the founding of the Irish National Theatre society in 1903 up to the present time, including the works of Yeats, Hyde, Lady Gregory, Synge, Shaw, O'Casey, and Beckett.

3460 Issues in Modern Irish History [HIST 3460]

3 credit hours

3470 Irish Studies Seminar

3 credit hours

Prerequisite: Permission of Coordinator

This interdisciplinary course will allow students to consider a selection of topics relating to the Irish experience at home and abroad. Availing of the expertise of internal and external guest speakers, areas of study will include post-colonial Ireland; Ireland in a contemporary European context; language and culture; Northern Ireland; contemporary literature in Irish and English; the Irish contribution to Canada; and sources for the study of the history of the Irish in Canada.

3500 Contemporary Canadian Irish Prose [ENGL 3500]

3 credit hours

Prerequisite: At least six (6) credit hours in Irish Studies, English or History or with permission of instructor.

This course examines the work of Canadian authors who have drawn on Ireland, Irish themes or the Irish in Canada in their writings, and the work of Irish-born authors living in Canada whose works contain significant Canadian content. Following an overview of the range of earlier Canadian Irish writings, students will read and discuss a selection of recent fiction and non-fiction texts by authors such as Charles Foran, Jane Urquhart, Brian Moore, Emma Donoghue, Peter Behrens and John Moss.

3534 Literature of Modern Ireland I: The Literary Revival, 1890-1922 [ENGL 3534]

3 credit hours

Prerequisite: 9 credit hours in ENGL in addition to ENGL 1205.

This course will examine the literature of the Irish Literary Revival with a strong emphasis on social and cultural context. Writers to be studied will include W. B. Yeats, Lady Gregory, J. M. Synge and James Joyce.

3535 Literature of Modern Ireland II: After the Revival, 1922-Present [ENGL 3535]

3 credit hours

Prerequisite: 9 credit hours in ENGL in addition to ENGL 1205.

This course will examine the literature of modern Ireland after the revival with a strong emphasis on social and cultural context. Writers to be studied will include Elizabeth Bowen, Brendan Behan, Kate O'Brien, Flann O'Brien, Patrick Kavanagh, Seamus Heaney and Medbh McGuckian.

3787 Ireland in an Age of Globalization

3 credit hours

Prerequisite: Either IRST 1215 or 1216.

This course will chart the history and progress of this half century within the context of trends in European and global dynamics, especially within the past 25 years of so-called globalization. Over the past half century, Ireland has been transformed from an essentially agrarian and rural socio-economy into a European powerhouse of industrial and IT manufacture and "knowledge economy" production. From the "frugal comfort" of the De Valera era to levels of prosperity and consumer purchasing power the equal of other European nations, from an age of rural infrastructure to modern transportation systems and digital access, from a land of myths and legends, poetry and music to a nation of business-friendly export production policies.

3788 Literature and Culture in Celtic Tiger Ireland [ENGL 3788]

3 credit hours

This course will examine the culture and literature produced in the period of economic expansion in Ireland known as the 'Celtic Tiger'. Students will examine how writers, artists, film-makers and musicians responded to the growth of a neo-liberal Irish society, in which the hitherto dominant position of the spiritual hegemony of the Catholic Church was replaced by an emphasis on material growth and secular individualism.

3826 – 3849 Special Topics in Irish Studies

3 credit hours

Prerequisite: permission of Coordinator of the Irish Studies Program.

This course will investigate in depth a specific topic or set of topics in Irish Studies. The topic will vary from year to year.

4431 The Modern Irish Novel [ENGL 4431/LING 4431]

3 credit hours

This course will involve a study of the modern Irish novel, placing each work in its social and cultural context. It may include works by James Joyce, Elizabeth Bowen and/or Samuel Beckett, as well as a selection of contemporary novels by writers like Anne Enright and John Banville.

4441 The Irish Short Story [ENGL 4441]

3 credit hours

This course will examine the short story as a major form in the fiction (in English) of Ireland, tracing its development from the Irish folktale to the sophisticated modern stories of internationally read practitioners such as Joyce, O'Connor, O'Faolain and Lavin.

4451 Gender and Irish Drama

3 credit hours

The focus of this course is the representation and construction of masculinity and femininity in Irish Drama. The gendered body will be at the core of our discussion as we study both closet dramas and staged (or embodied) performances through dramatic texts and other sources.

4566 Irish Migration [HIST 4566]

3 credit hours

Prerequisite: same as History 4000 level courses

During the nineteenth century Ireland had the highest emigration rate in Europe. In order to better understand this phenomenon, this seminar course will focus on the literature that discusses the nature of Irish migration and settlement from the eighteenth to early twentieth centuries. While the course will examine Irish immigrants in their various destinations, it will focus in particular on Irish settlement in North America.

4876 - 4899 Directed Reading Courses in Irish Studies

3 credit hours

Prerequisite: Permission of Coordinator

An independent reading course in selected topics relating to Ireland and the Irish abroad. Topics include: the history and culture of Ireland; languages and literature; the Irish in Canada; and contemporary Ireland.

Japanese (JPNS)

Chairperson M. McCallum, Modern Languages and Classics
Associate Professor A. Avdulov

Moratorium on new Admissions

Courses and programs in Japanese are offered by the Department of Modern Languages and Classics

Department Policy - Modern Languages and Classics

1. Enrollment in some language courses involves the following formal placement procedures.

All students seeking entry into language courses who have not previously taken a language course at Saint Mary's University must complete and return the Language Profile Form to the Department of Modern Languages and Classics.

Based on the information provided in the Language Profile Form, students may receive notification from the Department to appear for an oral interview and/or a written placement test at a designated time.

The Department of Modern Languages determines the appropriate course placement for each student

- (i) Permission to register or remain in a particular language course can be refused if the Department judges that the student's knowledge exceeds the level for that course.
- (ii) Native speakers are not eligible to receive advanced credit for language courses.
- (iii) Completion of Advanced Standing (transfer) courses does not exempt a student from taking the placement test.

2. In order to ensure the academic integrity in language courses, especially at the lower levels of instruction, the Department of Modern Languages and Classics does not allow native or near-native speakers of a particular target language to enroll in courses at the 2000 level or lower.

Students who misrepresent their knowledge of any given language by providing inaccurate or incomplete information about their linguistic educational history will be subject to disciplinary action as laid out in Academic Regulation 19(d).

3. The Department of Modern Languages and Classics supports a policy of regular class attendance by students. Frequent, unexplained absences from class will result in a lowering of the final grade in a manner to be determined by each faculty member.

Programs in Japanese

The Certificate of Japanese Studies is available as outlined below.

Certificate of Japanese Studies (CER JPST)

This certificate program in Japanese Studies is designed to provide linguistic, cultural and practical knowledge to persons interested in studying about or working in Japan. The program consists of twenty-four (24) credit hours. It is intended for undergraduate students, persons already holding degrees in any discipline, and mature students with relevant work experience.

Admission

The Certificate of Japanese Studies requires a formal application for admission. The official approval of the Asian Studies Coordinator is a prerequisite for admission to the program. Students majoring in Asian Studies at Saint Mary's University are not eligible for this program.

A student of the program must complete at least eighteen (18) credit hours at Saint Mary's University. Relevant academic courses, work experience and linguistic capability may be considered for credit recognition. Applicants should submit a resume of relevant work experience, official university transcripts and any other relevant documentation.

Program Courses

This program consists of twelve (12) required credit hours and a number of optional credit hours. All students are required to take JPNS 1100 (Introductory Japanese) and JPNS 2200 (Intermediate Japanese). Students must also select twelve (12) optional credits hours in at least two different disciplines from the following courses:

ANTH 2326; ANTH 2327; ASNT 3300; ASNT 3302; ASNT 2303; HIST 1222; HIST 2354; HIST 2355; HIST 2356; RELS 2327.

At least twelve (12) credit hours must be at the 2000 level or above. Detailed descriptions are found under Departmental listing. Not all courses will be offered each year.

Requirements for Graduation

Students are encouraged to complete the program within five years. A minimum cumulative grade point average of 2.00 in the Certificate of Japanese Studies is required. Students who have completed all the courses without being officially admitted to the program will not be accredited.

Course Descriptions

1100 Introductory Japanese

6 credit hours

An introductory language course for those beginning the study of Japanese language and culture. Classroom activities will provide practice in pronunciation and the use of basic patterns of speech. Written Japanese will be introduced and studied.

2200 Intermediate Japanese

6 credit hours

Prerequisite: JPNS 1100 or equivalent.

A continuation of introductory Japanese, intended to develop proficiency in oral, aural and written Japanese within the context of Japanese culture.

3300 Advanced Oral and Written Japanese I

3 credit hours

Prerequisite: JPNS 2200

This course offers an opportunity to build and refine students' ability to comprehend and to communicate effectively in Japanese.

3301 Advanced Oral and Written Japanese II

3 credit hours

Prerequisite: JPNS 3300

This course is a continuation of JPNS 3300.

3303 Advanced Japanese

6 credit hours

Prerequisites: JPNS 2200

This course is intended to offer students an opportunity to refine their ability to comprehend and communicate in the target language within the cultural context of Japan.

3826-3848 Special Topics in Japanese Language and Culture

3 credit hours

Prerequisites: permission of the instructor, which may vary depending on course content.

Students will focus on the further development of advanced Japanese language skills such as translation, interpretation, and writing. The important aspects of Japanese literature, arts and culture will be highlighted.

Latin American Studies

Minor in Latin American Studies

This program is administered by the Department of Modern Languages and Classics.

Chairperson M. McCallum, Modern Languages and Classics

Associate Professor E. Tsedryk

Students majoring in discipline other than Spanish may obtain a minor in Latin American Studies by completing the equivalent of twenty-four (24) credit hours approved for the program. These must include:

a) SPAN 1000 Introduction to Latin American Studies

- b) SPAN 1100 Introduction to the Spanish Language
- c) HIST 1262 Introduction to Latin American History
- d) HIST 2440 Revolutions in Latin America
- e) And twelve (12) other credit hours with a focus on Latin America in at least two different disciplines taken from the list below:

CRIM 4515, HIST 2250, HIST 2251, HIST 3480, HIST 4530, IDST 4463, SPAN 3310, SPAN 3312, SPAN 3320, SPAN 4400 and other courses approved by the Program Advisor.

Students are referred to the Spanish section of this Academic Calendar for the Department Policy on course placement.

Linguistics (LING)

Programs and courses in Linguistics are administered by the Linguistics Coordinator.

Committee on Linguistics

E. Asp	Coordinator of Linguistics
N. Conrad	Psychology
E. Enns	Education
D. Hall	Linguistics and English
E. Henry	Anthropology
J. Plews	German
P. Ó Siadhail	Irish Studies
E. Tsedryk	Modern Languages and Classics and Linguistics

Program in Linguistics

An undergraduate degree in linguistics provides opportunities to study the formal, functional and systemic nature of language and languages as both social and cognitive phenomena. Although a discipline in its own right, linguistics has cognate relationships with many disciplines, suggested by the interdisciplinary nature of many of the courses in the program. Faculty members from Anthropology, English, French, Philosophy, Psychology, Sociology, and other disciplines participate.

Major in Linguistics

A major in linguistics requires a minimum of thirty-nine (39) credit hours, including:

- LING 1200 Introduction to Linguistics
- LING 2309 Phonetics
- LING 2310 Phonology
- LING 2330 Syntax
- LING 2340 Semantics
- Nine (9) credit hours from
 - LING 3310 Advanced Phonology
 - LING 3320 Morphology
 - LING 3330 Advanced Syntax
 - LING 3350 Interdisciplinary Perspectives in Linguistics
- Twelve (12) additional credit hours at the 2000 level or above in LING.

Honours in Linguistics

An honours degree requires a minimum of sixty (60) credit hours including:

- LING 1200 Introduction to Linguistics
- LING 2309 Phonetics
- LING 2310 Phonology
- LING 2330 Syntax
- LING 2340 Semantics
- Nine (9) credit hours from
 - LING 3310 Advanced Phonology
 - LING 3320 Morphology
 - LING 3330 Advanced Syntax
 - LING 3350 Interdisciplinary Perspectives in Linguistics

- Three (3) credit hours from
 - LING 4420-4432 Topics in Linguistic Theory
 - LING 4510-4520 Topics in Applied Linguistics
- Three (3) credit hours at the 4000 level in LING
- Six (6) credit hours at the 2000 level or above in a language other than English
- Twenty-one (21) additional credit hours at the 2000 level or above in LING.

Concentration in Linguistics

A Concentration in linguistics requires a minimum of twenty-four (24) credit hours in linguistics including:

- LING 1200 Introduction to Linguistics
- Eighteen (18) additional courses at the 2000 level or above in LING or from the list of approved courses below.

Minor in Linguistics

A minor in linguistics requires a minimum of twenty-four (24) credit hours in linguistics including:

- LING 1200 Introduction to Linguistics
- At least six (6) credit hours selected from LING 2309 Phonetics, 2310 Phonology, 2330 Syntax, 2340 Semantics
 - Twelve (12) credit hours selected from courses at or above the 2000 level from the LING or cross-approved courses listed below.

Certificate in Linguistics

The Certificate in Linguistics provides an opportunity to explore the structure and function of languages and how their systematic nature makes human communication possible. The Certificate in Linguistics is designed to provide a foundation in linguistics to complement study in related fields, such as language teaching, anthropology, sociology, business, and computer studies.

The program consists of thirty (30) credit hours and is intended primarily for students already holding degrees in any discipline.

1. Admission

Admission to the certificate program requires a formal application for admission. Students taking the certificate while completing a bachelor's degree must obtain official approval of the Coordinator for Linguistics. Students majoring in Linguistics at Saint Mary's University are **not** eligible for this program.

2. Program Courses

- LING 1200 Introduction to Linguistics
- Six (6) credit hours from
 - LING 2309 Phonetics
 - LING 2310 Phonology
 - LING 2330 Syntax
 - LING 2340 Semantics
 - LING 3320 Morphology
- Three (3) credit hours at the 3000 level or above from the approved list below

- Fifteen (15) additional credit hours from the approved list below

With the permission of the Coordinator for Linguistics, one of these courses can be other than a Linguistics course. Typically, this course would be one suitable for the student's objectives, such as an upper level class in a second language, formal logic or computing studies.

Fifteen (15) of the thirty (30) credit hours must be completed at Saint Mary's University. A minimum GPA of 2.00 out of 4.3 in this Certificate Program is required for graduation.

3. Teacher Certification

In September 2002, the Provincial Department of Education's Minister's Advisory Committee on Teacher Certification approved the Certificate in Linguistics program in general for teacher certification purposes. Any teacher interested in pursuing this certificate program for teacher certification purposes **must** request individual approval of the program from the Registrar - Teacher Certification **prior** to registration in this program.

Approved Saint Mary's University courses:

ANTH 1290	Introduction to Language and Society
ANTH 2391	Learning a Field Language
ANTH 2392	Linguistic Anthropology
ANTH 3308	Signs and Symbols
ANTH 3395	Language Issues in the Arctic
ANTH 3396	Language Issues in Canada
ANTH 4491	Advanced Topics in Linguistic Anthropology
ANTH 4492	Ethnography of Communication
ENGL 2311	Modern English Language
ENGL 2326	Language and Gender
ENGL 3402	History of the English Language
ENGL 4493	Doing Discourse Analysis
ENGL 4494	Approaches to Discourse Analysis
FREN 3320	French Phonetics
FREN 4440	Canadian French: Sociolinguistic Perspectives
IRST 2346	A Sociolinguistic History of Ireland
LING 2309	Phonetics
LING 2310	Phonology
LING 2330	Syntax
LING 2340	Semantics
LING 3310	Advanced Phonology
LING 3320	Morphology
LING 3330	Advanced Syntax
LING 3350	Interdisciplinary Perspectives in Linguistics
LING 3826-3849	Special Topics in Linguistics
LING 4401-4409	Topics in Linguistic Theory
LING 4501-4509	Topics in Applied Linguistics
LING 4826-4849	Special Topics in Linguistics
LING 4876-4899	Directed Reading in Linguistics
PHIL 3402	Philosophy of Language
SOCI 3339	The Sociology of Language

Course Descriptions

1200 Introduction to Linguistics

6 credit hours

Natural languages are systematic and this course will examine how this fact makes human communication

possible. An introduction to modern methods of linguistic analysis, the course will enable students to understand the structure of their own language and to compare it with other languages. By familiarizing them with the basic concepts of linguistics, the course will prepare students for more advanced courses in linguistics.

2309 Phonetics

3 credit hours

Prerequisites: LING 1200

This course is an introduction to the production, acoustic properties, and perception of the sounds used in English and other languages. Skills developed include: systematic transcription of speech sounds using the International Phonetic Alphabet, description of sounds in articulatory terms, and recognition of linguistically relevant properties of sounds from spectrograms and waveforms.

2310 Phonology

3 credit hours

Prerequisite: LING 1200

Phonology is the study of the sound patterns of language. The universal principles by which sounds are organized in language through phonological rule systems are examined, as well as the processes which account for language-specific diversity. Students will learn how to analyze phonological data from natural languages, and how to formulate hypotheses about how sounds are represented and manipulated in speakers' mental grammars.

NOTE: It is recommended that students take LING 2309 before 2310

2311 Modern English Language [ENGL 2311]

3 credit hours

2321 French Phonetics [FREN 3320]

3 credit hours

2326 Language and Gender [ENGL 2326]

3 credit hours

2330 Syntax

3 credit hours

Prerequisite: LING 1200

Syntax is the study of sentence structure: how words are organized into larger meaningful units. The course examines the nature of speakers' underlying knowledge of the rules for combining words into higher-order structures. The fundamental similarities in sentence patterning among different languages will be addressed.

2339 The Sociology of Language [SOCI 3339]

3 credit hours

2340 Semantics

3 credit hours

Prerequisite: LING 1200

This course analyzes how words and sentences convey meaning in language. Students will learn how lexical items

can be represented in terms of their semantic components and how interrelated groups of words form semantic fields. At the sentence level, grammatical, pragmatic and logical aspects of meaning are introduced. The course also explores idiomatic expressions and the ubiquity of metaphor.

2346 A Sociolinguistic History of Ireland [IRST 2346]
3 credit hours

2391 Learning a Field Language [ANTH 2391]
3 credit hours

2392 Linguistic Anthropology [ANTH 2392]
3 credit hours

3310 Advanced Phonology
3 credit hours
Prerequisite: LING 2310

This course develops skills in recognition, description and analysis of segmental and prosodic organization, and discusses recent phonological theory.

3320 Morphology
3 credit hours
Prerequisite: LING 1200 and six(6) credit hours in LING.

Morphology is the study of word formation and structure. The course is an examination of how words are made up of smaller, contrastive elements. Processes of word formation such as derivation and compounding are analyzed. Inflectional morphology is investigated. The manner in which morphology relates to the other components of language is discussed. Morphologically based linguistic typologies are explored.

3330 Advanced Syntax
3 credit hours
Prerequisite: Ling 2330

This course presents recent developments in syntactic theory focusing on form and meaning of different types of sentences. Building on universal principles and specific parameters of syntactic structures, it provides necessary tools for description and advanced analysis of sentences in a cross-linguistic perspective.

3350 Interdisciplinary Perspectives in Linguistics
3 credit hours
Prerequisite: Eighteen (18) credits in LING or in a discipline associated with the special topic.

This course investigates the application of linguistics to particular fields such as forensic linguistics, clinical linguistics, clinical discourse analysis, neurolinguistics. Students will gain experience working in an interdisciplinary context.

3395 Language Issues in the Arctic [ANTH 3395]
3 credit hours

3396 Language Issues in Canada [ANTH 3396]
3 credit hours

3402 History of the English Language [ENGL 3402]
6 credit hours

3427 Language, Gender and Power [ENGL 4427]
3 credit hours

3826 - 3849 Special Topics in Linguistics
3 credit hours
Prerequisite: LING 1200 and six (6) credit hours in LING

These courses allow students to study a special topic at an advanced level. Such topics will either (a) not be covered by other LING courses or (b) handle the subject matter in alternative models.

Seminar: 3 hrs. a week.

4420-4430 Topics in Linguistic Theory
3 credit hours
Prerequisite: LING 1200 and twelve (12) credit hours in LING

This course will examine concepts and trends in the development of linguistic theory. Perspectives may include (a) particular areas of enquiry, such as language diversity, pragmatics, neurolinguistics, etc., and how they have informed linguistic theory; (b) schools of linguistics from Saussure to the present; and (c) specific theoretical approaches such as Functionalism, Minimalism, or Optimality Theory.

4431 The Modern Irish Novel [IRST 4431/ENGL 4431]
3 credit hours

4440 Canadian French: Sociolinguistic Perspective [FREN 4440]
3 credit hours

4491 Advanced Topics in Linguistic Anthropology [ANTH 4491]
3 credit hours

4492 Ethnography of Communication [ANTH 4492]
3 credit hours

4493 Doing Discourse Analysis [ENGL 4493]
3 credit hours

4494 Approaches to Discourse Analysis [ENGL 4494]
3 credit hours

4500 Honours Thesis
6 credit hours
Prerequisite: honours standing in Linguistics.

Supervised preparation of a significant research paper for honours students in linguistics.

4510-4520 Topics in Applied Linguistics
3 credit hours
Prerequisite: At least eighteen (18) credit hours in LING, a second language, or psychology.

This course will examine topics in applied linguistics. The course may focus on linguistic approaches to literacy, first or second language acquisition, bilingualism, or a similar topic. The goal of the course is to develop knowledge of primary literature addressing linguistic contributions to the area under focus, but also to develop skills in problem based interdisciplinary thinking, research and collaboration.

4826 – 4849 Special Topics in Linguistics

3 credit hours

Prerequisite: LING 1200 and twelve (12) credit hours in LING..

These courses allow students to study a special topic at an advanced level. Such topics will either (a) not be covered by other LING courses or (b) handle the subject matter in alternative models.

4876 – 4899 Directed Readings in Linguistics

3 credit hours

These courses provide the opportunity to study a particular subject(s) in detail. They are designed to examine at an advanced level topics not covered in other linguistics courses or in courses cross-listed as linguistics courses, or to allow for a different approach to the study of topics already covered in other courses.

Management (MGMT)

Co-Chairpersons	C. Driscoll
Professors	C. Driscoll, E. Farrell, J. Haiven, J. Helms-Mills, C. Loughlin, A. Mills, T. Wagar, D. Wicks
Associate Professors	W. Carroll, C. De Fuentes, C. Holmvall, M. McKee, J. O'Brien, R. Summers
Assistant Professors	A. Ahmadsimab, C. Hervieux, F. Liu, X. Liu, V. Tabvuma
Professor Emeriti	J. Badawi, P. Fitzgerald, L. Haiven, S. Pendse, H. Schwind

The Department of Management offers three programs for majors:

- * Entrepreneurship
- * Human Resource Management and Industrial Relations
- * Management

Details on the requirements for the Management major are given below. Details on the other majors can be found in the corresponding sections of this Calendar.

Management Major

Students are advised that possession of the minimum qualifications does not guarantee admission to a particular academic program. Limits to the number of students who can be in a particular program at any one time exist and depend very much on the number of faculty members available in a particular academic unit.

To assist students, the Year 3 and Year 4 course requirements for a Management Major and the core BComm degree program requirements are listed below. Course descriptions follow later in this section.

Note: In addition to all other requirements for this major, a minimum GPA of 2.2 out of 4.3 is required in ACCT 3332, MGMT 2383, MGMT 2384, MGMT 3385, MGMT 3386, MGMT 4481, MGSC 3317, plus the courses satisfying the

required ACCT, FINA, and MKTG electives (as indicated below by *).

Year 3

- *ACCT 3332 Planning and Control – see Note (i)
- FINA 2360 Business Finance I
- FINA 3361 Business Finance II
- MGMT 3480 Ethical Responsibilities of Organizations
- *MGSC 3317 Operations Management
- *Three (3) credit hours in Accounting electives
- *Six (6) credit hours in Marketing electives
- Three (3) credit hours in Commerce electives
- Three (3) credit hours in free electives

Year 4

- *MGMT 3385 Human Resource Management
- *MGMT 3386 Industrial Relations
- *MGMT 4481 Organization Theory: Structure, Process, Analysis and Design
- MGMT 4489 Strategic Management
- *Three (3) credit hours in Finance electives
- Twelve (12) credit hours in non-Commerce electives
- Three (3) credit hours in free electives

Note: (i) Students cannot receive credit for both ACCT 3332 and ACCT 3333 or ACCT 3335.

Course Descriptions

1281 Introduction to Business Management

3 credit hours

The purpose of this course is to introduce the student to the various aspects of business in the Canadian environment. Emphasis will be placed on the functional areas of marketing, production, finance, and the individual in the organization. In addition, the process of management will be outlined and evolving changes in management practices discussed. Current issues such as social responsibility, business ethics and the role of business in the community will be examined. Teaching methods will include lectures,

group presentations and discussions of cases as well as other exercises.

2383 Micro Organizational Behavior

3 credit hours

Prerequisite: MGMT 1281.

This course focuses on the micro aspects of organizational behavior. Topics covered include human needs and motivation, learning, perception, and attribution, as these relate to individuals and groups in organizations. Teaching methodology includes lectures, discussions and case analysis.

2384 Macro Organizational Behavior

3 credit hours

Prerequisite: MGMT 1281.

This course focuses on macro aspects of organizational behavior. Topics covered include group processes and their relationship to effectiveness, inter-group cooperation and conflict, organizational character, structure, environment and culture, leadership, communication, decision making and organizational change and development.

3380 Family Business

3 credit hours

Prerequisite: completion of at least sixty (60) credit hours.

Topics include: income versus inheritance, management and promotion, bringing non-family resources to the firm, harvest and sell out strategies, succession, deciding to join the family firm, establishing credibility as a daughter or son, stages of family business growth. The course also explores organizational creativity and how innovation is developed and carried out in family business, and the innovation drivers and barriers in family business.

3385 Human Resource Management

3 credit hours

Prerequisite: MGMT 2383 and 2384 or PSYC 3327 and 4427.

A study of the conceptual and practical aspects of the human resource management function in organizations, with a special emphasis on business organizations. The course focuses on the major issues, procedures and problems involved in human resource planning, recruitment and selection, compensation, training and development, and maintenance of human resources.

3386 Industrial Relations

3 credit hours

Prerequisite: MGMT 2383 and 2384 or PSYC 3327 and 4427.

An introduction to the field of industrial relations. It focuses on the impact of collective bargaining in management/labour relations. Topics covered include the historical development, structure, and operation of labour unions, the process and contents of negotiations and the settlement of union/management disputes.

3389 Structuring Lean Start-Up

3 credit hours

Prerequisite: ACCT 2242 and MKTG 2270.

Students create and run business ventures, and participate in a mini-venture trade fair. Lean start-up principles introduce challenges regarding starting and growing ventures. Student founders test their hypotheses about their ventures, and practice qualities that define an entrepreneurial mindset. Lectures, innovative business models, and cases are applied to start-ups.

Classes and case study 3 hrs. a week.

3392 Occupational Health and Safety

3 credit hours

Prerequisite: completion of at least sixty (60) credit hours.

This course examines current issues in occupational health and safety including employee/union involvement, government regulation, inspections and compliance auditing.

3480 Ethical Responsibilities of Organizations

3 credit hours

Prerequisite: completion of at least sixty (60) credit hours.

The purpose of the course is to help students bring ethics into their decision making. Ethics will be defined in a broad, contextual, and practical sense. The course focuses on the individual decision maker, the organization as a context and culture that sets the stage for ethical action, and the broader societal, economic, political, and ecological systems that influence moral decision making.

4110 Venture Capital

3 credit hours

Prerequisite: 72 credit hours in any Faculty or approval of instructor.

Venture Capital is designed to finance rapid-growth, scalable start-ups. Students explore risk-laden investments in entrepreneurial and innovative firms. Students investigate value propositions, financing options, and write investment memos clean tech, life sciences, and ICT start-ups. Lectures are supplemented with visits by guest VCs, entrepreneurs, and local living cases.

4220 Sustainable Venture Investment Fund Applied

3 credit hours

Prerequisites: MGMT 4110 or approval of instructor.

Students learn about risks associated with entrepreneurial firms by managing a venture fund and making investments in innovative start-ups with sustainable objectives. Students raise fund capital, conduct due diligence, assess the innovative capacity of companies. A highly applied course, students are also mentored by venture capitalists in class.

4481 Organization Theory: Structure, Process, Analysis and Design

3 credit hours

Prerequisite: COMM 2293 and MGMT 2383 and 2384 or PSYC 3327 and 4427.

In a systems context, the first phase of the course will expose the student to different concepts of formal organization. The second phase will involve the application of concepts using various design approaches and configurations.

4482 Staffing and Selection

3 credit hours

Prerequisite: COMM 2293 and MGMT 3385 or PSYC 3327 and PSYC 4427.

This course examines the issues involved in recruiting applicants for job vacancies and the procedures for assessing the match between candidates and the requirements of the position. The examination of the topic will include consideration of statistical and scientific issues and the practical implications.

Note: Students cannot receive credit for both MGMT 4482 and PSYC 4428.

4483 Management and Leadership Skills

3 credit hours

Prerequisite: COMM 2293 and either MGMT 2383 and 2384 or PSYC 3327 and 4427.

Students examine the knowledge, skills, behaviours and competencies related to effective management-leadership. This will include the examination of the relevant concepts and theories and the implications for practice. The focus will be the development of manager-leader capabilities through lectures, class discussions, role-plays, experimental exercises and simulations..

4485 Wage and Salary Administration

3 credit hours

Prerequisite: COMM 2293 and MGMT 3385 or PSYC 3327 and 4427.

This course is designed to integrate compensation systems with employment planning, career development, and organizational planning concepts.

4486 Training and Development

3 credit hours

Prerequisite: COMM 2293 and MGMT 3385 or PSYC 3327 and 4427.

This course examines the organizational procedures for analyzing training needs and the subsequent phases of developing and evaluating training program effectiveness. The course will also address organizational activities associated with preparing and developing employees as part of their careers in an organization.

Note: Students cannot receive credit for both MGMT 4486 and PSYC 4426.

4487 New Venture Opportunities

3 credit hours

Prerequisite: COMM 2293 and MGMT 3389.

Students are led through the development of the major elements of a business plan for a new venture. As a

planning and financing tool, the business plan outlines in detail and specifically quantifies market potential, competition, production and operational requirements, finance, management and the overall feasibility of a possible new venture.

4488 International Business Management

3 credit hours

Prerequisite: completion of at least sixty (60) credit hours and COMM 2293.

An introduction to the nature of the environment of international business management including the study of multinational corporations, intercultural differences and their effects on management style and policy and execution. The focus of discussion and presentation will be on management systems in North and South America, Europe, Middle East, South-East Asia, China, and Japan.

4489 Strategic Management

3 credit hours

Prerequisite: 90 credit hours including COMM 2293, FINA 3361, MKTG 2270, MGMT 2383, MGMT 2384, and six (6) additional credit hours at the 3000-level from ACCT, ECON, MGMT, FINA, MKTG, MGSC or CISY.

This is a “capstone” course in which students utilize all the business disciplines to identify, diagnose, and recommend appropriate action for real managerial problems. An objective of this course is to provide students with a better understanding of the complexity and interrelationship of modern managerial decision making.

4494 Creative Destruction and Innovation: Theories and Concepts

3 credit hours

Prerequisite: Completion of at least forty-five (45) credit hours.

Students are exposed to topics of innovation and entrepreneurship as catalyst for economic activity, and the characteristics and behaviours of innovators and entrepreneurs. The focus is on current methodologies like design thinking, observation, brainstorming, and ideation to identify and solve significant and complex problems that need a multidisciplinary approach.

4495 Small Business Performance Improvement

3 credit hours

Prerequisite: COMM 2293 and completion of at least sixty (60) credit hours.

This course requires students to work with a small business owner/manager to identify a small business problem, to develop a workable solution to the problem, and to implement that solution.

4496 Collective Bargaining

3 credit hours

Prerequisite: COMM 2293 and MGMT 3386.

An examination of the process of collective bargaining and its role in management-union relations. The course examines the nature of negotiation, its characteristics, the roles of

power, persuasion, communication, social structure, negotiating strategies and tactics, and negotiators' personalities. Grievance handling as a form of negotiation is also examined.

4498 Small Business Consultancy

3 credit hours

Prerequisite: COMM 2293 and permission of instructor.

This course allows students to gain hands-on business experience by working with clients of the Saint Mary's University Business Development Centre. Student groups receive a project proposal outlining the requirements, information needs and services they will provide the client during the semester. Projects generally take the form of a business plan, market study, or other business-related function and often involve financial projections. Each project provides students an opportunity to use skills learned in business courses and to understand the interrelationship between marketing, accounting, finance, and management in a practical business setting. Under supervision, students prepare a professional report and final presentation that communicate the project's results for the client.

Work groups often include students from different business disciplines and are assigned based upon the needs of the project. Groups schedule their preferred meeting times but

are required to meet a minimum of three hours each week. For more information see <http://www.smu.ca/smubdc>. Internship. 1 semester.

4826 – 4849 Special Topics/Seminars in Management

3 credit hours

Prerequisite: COMM 2293 and completion of at least sixty (60) credit hours and permission of instructor.

These courses deal with selected topics in the management area. The topics to be covered will vary depending on the interests of the students and instructors.

Seminar 3 hrs. a week. 1 semester.

4876 – 4899 Directed Study

3 credit hours

Prerequisite: COMM 2293 and permission of Chairperson and instructor.

Intended to supplement or provide an alternative to the regular management courses in order to meet the special needs and interests of students, the course provides an opportunity to study a particular subject in detail and requires from the student some measure of independence and initiative.

Management Science (MGSC)

Chairperson	F. Boabang, Professor
Professors	T. Charles, P. Dixon, E. Lee, H. Millar
Associate Professors	M. Wang, M. Zhang
Assistant Professor	N. Azad

Management Science courses are offered by the Department of Finance, Information Systems, and Management Science.

Course Descriptions

1205 Quantitative Methods I

3 credit hours

Prerequisite: Nova Scotia Pre-Calculus Mathematics or Mathematics 12 Academic; or equivalent.

This course illustrates applications of basic mathematical techniques in decision-making such as break-even analysis, data manipulation, aggregate planning and financial planning. Topics include linear functions and equations, linear programming and the simplex method, compound interest and annuities.

1206 Quantitative Methods II

3 credit hours

Prerequisite: Nova Scotia Pre-Calculus Mathematics or Mathematics 12 Academic; or equivalent.

The purpose of this course is to provide a basic understanding of the dynamics of non-linear functions as they relate to the economic use of scarce resources.

Students will be exposed to the basic methods of calculus and the concepts of probability as they relate to decision making in an uncertain environment.

2207 Introductory Statistics

3 credit hours

Prerequisite: MGSC 1206.

This course is designed to introduce some common decision aids for coping with uncertainty. Topics include: data collection, summarization and presentation, reporting and interpreting the accuracy of results, evaluating the effectiveness of a decision and determining relationships among factors for the purpose of prediction. Examples will be drawn from a variety of fields and disciplines. Since the analysis of data will involve the use of a computer, it is strongly recommended that a course such as CISY 1225 be completed beforehand.

Note: Students may receive credit for only one of the following towards the Bachelor of Commerce: MGSC 2207, PSYC 2350, SOCI 2365, GEOG 3326, BIOL 3308, EGNE 2309, or MATH 1216.

3317 Operations Management

3 credit hours

Prerequisite: MGMT 1281, MGSC 1205 and MGSC 2207.

This course addresses operations issues that contribute to how firms compete with respect to cost, quality, time and flexibility. Topics include project management, product/service and process design, process flows, quality,

and supply chain management (including forecasting, inventory management, JIT, and supplier relations). Examples will be drawn from both service and manufacturing sectors.

4491 Small Business Consultancy

3 credit hours

Prerequisite: COMM 2293 and permission of Chairperson.

This course allows students to gain hands-on business experience by working with clients of the Saint Mary's University Business Development Centre. Student groups receive a project proposal outlining the requirements, information needs and services they will provide the client during the semester. Projects generally take the form of a business plan, market study, or other business-related function and often involve financial projections. Each project provides students an opportunity to use skills learned in business courses and to understand the interrelationship between marketing, accounting, finance, and management in a practical business setting. Under supervision, students prepare a professional report and final presentation that communicate the project's results for the client.

Work groups often include students from different business disciplines and are assigned based upon the needs of the

project. Groups schedule their preferred meeting times but are required to meet a minimum of three hours each week. For more information, see <http://www.smu.ca/smubdc>. Internship. 1 semester.

4826 – 4849 Special Topics/Seminars in Management Science

3 credit hours

Prerequisite: COMM 2293 and permission of Chairperson.

This course deals with selected topics in management science. It is offered when in sufficient demand, and specific topics covered may vary depending on the interests of students and instructor.

4876 – 4899 Directed Study

3 credit hours

Prerequisite: COMM 2293 and permission of Chairperson.

Intended to supplement or provide an alternative to the regular management science courses in order to meet the special needs and interests of students, the course provides an opportunity to study a particular subject in detail and requires from the student some measure of independence and initiative.

Marketing (MKTG)

Chairperson	G. Fullerton
Professor	G. Fullerton, C. Kim
Associate Professors	V. Creelman, K. Grandy, M. Morales H. Ogden, R. Venkat
Assistant Professors	E. Pancer, M. Wei

The Department of Marketing offers a program for marketing majors which, in addition to the general requirements for a Bachelor of Commerce degree as outlined in Section 3 of this *Calendar*, requires students to take MKTG 3376 (Consumer Behaviour), MKTG 3378 (Marketing Research), MKTG 3379 (Marketing Management), MKTG 4479 (Marketing Policy) and six (6) credit hours additional electives. For additional information, students should consult the Chairperson and/or faculty advisors. The Department administers the communications courses [COMM 2293 and COMM 3394] described earlier in this *Calendar*.

Graduate Studies

For information on graduate courses see the *Graduate Academic Calendar*.

Upon completion of 45 credit hours, Commerce students with a cumulative grade point average of 2.0 may elect to declare a major in Marketing. (In exceptional circumstances, students can also be admitted to the major by permission of the Chairperson.)

Note: Students are advised that possession of the minimum qualifications does not guarantee admission to a particular academic program. Limits to the number of students who can be in a particular program at any one time exist and

depend very much on the number of faculty members available in a particular academic unit.

Marketing Major – Requirements:

To complete a major in Marketing, students must attain a minimum grade point average of 2.2 in MKTG 2270 and the 3rd and 4th year MKTG courses (as indicated below by *).

Year 3

FINA 2360	Business Finance I
FINA 3361	Business Finance II
MGMT 3480	Ethical Responsibilities of Organizations
*MKTG 3376	Consumer Behaviour
*MKTG 3378	Marketing Research
*MKTG 3379	Marketing Management

Nine (9) credit hours in non-Commerce electives

Three (3) credit hours in free electives

Year 4

MGMT 4489	Strategic Management
*MKTG 4479	Marketing Policy

*Six (6) credit hours in Marketing electives

Six (6) credit hours in non-Commerce electives

Twelve (12) credit hours free electives

Course Descriptions

2270 Introduction to Marketing

3 credit hours

Prerequisite: MGMT 1281 and ECON 1201.

Students are introduced to the basic marketing tools - segmentation, positioning, product, price, distribution, and promotion. Marketing research, buyer behaviour, planning, marketing in a global setting, and the relationship between marketing and society are also introduced. Teaching methods include lecture, current readings, videos, class exercises and case analysis.

3375 International Marketing

3 credit hours
Prerequisite: MKTG 2270.

Students explore the economic, cultural, political, and legal aspects of international marketing, together with international product policy, distribution, pricing, and promotion. International consumerism, research, and management issues are also addressed.

3376 Consumer Behaviour

3 credit hours
Prerequisite: MKTG 2270.

Students gain an understanding of the social, cultural, and psychological factors influencing consumer behaviour and of the implications of consumer behaviour to marketing strategies. Topics include consumers' needs, attitudes, learning, decision making, consumption patterns, cultures, and life styles.

3378 Marketing Research

3 credit hours
Prerequisite: MGSC 2207 and MKTG 2270.

Students are introduced to applied marketing research. Topics include preparation and evaluation of research proposals, evaluation of secondary data, design of research instruments, sampling, data collection, data analysis using statistical packages, and preparation and evaluation of research reports.

3379 Marketing Management

3 credit hours
Prerequisite: MKTG 2270, ACCT 2242, and COMM 2293.

The objective of this course is to better equip students with the necessary analytic and communication skills to succeed as marketing managers. The focus is on practical applications. Course activities may include discussions, case analyses, simulation games, secondary research and field research projects. The course focuses on skill development and on integration of all decision areas in marketing.

4462 Services Marketing

3 credit hours
Prerequisite: MKTG 3379 and COMM 2293.

Students will be exposed to conceptual and managerial issues in the marketing of services. Topics include marketing and service organizations, service-quality management, service marketing mix, marketing strategies for profit and non-profit service organizations, international and emerging perspectives on service marketing. Students will develop strategies for specific service areas such as health care or tourism.

4471 Integrated Marketing Communications

3 credit hours
Prerequisite: MKTG 3379 and COMM 2293.

Students study models of interpersonal and mass communications and the various promotional crafts: advertising, sales promotion, publicity, public relations, and personal selling, with a focus on integrating these into a coherent communications strategy. Marketing communications implications inherent in product pricing, design, packaging, and distribution are also examined.

4473 Management of Marketing Channels

3 credit hours
Prerequisite: MKTG 3379 and COMM 2293.

Students examine the complex path from manufacturer or producer to end-user: the structure of marketing channels, the responsibilities of each member, the factors affecting channel effectiveness, the methods for developing and managing effective channel relationships.

4474 Personal Selling and Sales Management

3 credit hours
Prerequisite: MKTG 3379 and COMM 2293.

Students study the theories and skills required for effective personal selling; for recruiting, training, compensating, and motivating sales personnel; and for managing the total selling effort.

4478 Retail Management

3 credit hours
Prerequisite: MKTG 3379 and COMM 2293.

Students undertake a comprehensive study of the activities involved in retailing goods and services to consumers. Topics include the evolution of retailing, shopping behaviour, retail marketing strategies, and emerging trends.

4479 Marketing Policy

3 credit hours
Prerequisite: COMM 2293, MKTG 3376, 3378, and 3379.

Students integrate the material learned in the prerequisite, upper-division marketing courses to analyze marketing opportunities, develop and evaluate marketing strategies, and develop and evaluate marketing plans.

Teaching methods include case analyses, field projects, and/or computer simulation games.

4495 Business Consultancy

3 credit hours
Prerequisite: COMM 2293 and MKTG 3379 (which may be taken concurrently) and permission of instructor.

This course allows students to gain business experience by working for clients of the Saint Mary's University Business Development Centre.

Student groups receive a project proposal outlining the requirements, information needs, and services they will provide the client during the semester. Projects generally

take the form of a business plan, market study, or other business-related function and often involve financial projections. Each project provides students an opportunity to use skills learned in business courses and to understand the interrelationship between marketing, accounting, finance, and management in a practical business setting. Under supervision, students prepare a professional report and final presentation that communicate the project's results for the client.

Work groups often include students from different business disciplines and are assigned based upon the needs of the project. Groups schedule their preferred meeting times but are required to meet a minimum of three hours each week. For more information see <http://www.smu.ca/smubdc>.

Internship. 1 semester.

4826 – 4849 Special Topics/Seminars in Marketing 3 credit hours

Prerequisite: MKTG 3379 and COMM 2293.

Students have the opportunity for in-depth study of selected topics in marketing. Topics selected for discussion are at the discretion of the instructor, with approval of the Department. Issues to be discussed may include such topics as marketing productivity, marketing auditing, marketing models, social issues in marketing. Topics will vary from year to year. The course may be repeated for credit hours when topics vary.

4876 – 4899 Directed Study

3 credit hours

Prerequisite: COMM 2293 and permission of Chairperson and instructor.

Intended to supplement or provide an alternative to the regular marketing courses in order to meet the special needs and interests of students, the course provides an opportunity to study a particular subject in detail and requires from the students some measure of independence and initiative.

Mathematics (MATH)

Co-Chairpersons	B. Hartnell and A. Finbow
Professors	R. Dawson, A. Finbow, B. Hartnell, S. Konstantinidis, P. Lingras, M. Mastnak, P. Muir
Associate Professors	W. Finbow-Singh, J. Irving, B. Khan, S. Oore, P. Scobey
Lecturer	A. Hare, D. Rojas
Adjunct Professors	Y. Akiyama, K. Bain, N. Linney
Program Coordinator	R. Dawson
Co-op Advisor	B. Khan

The Department of Mathematics and Computing Science offers a broad range of courses, including introductory courses intended for students with little mathematical or computing science background; preparatory courses for students intending to enter fields requiring mathematics or computing science; and specialized courses for more advanced mathematics and computing science students. The Department of Mathematics and Computing Science offers MATH courses required for the Engineering program, and a selection of 1000-level courses from which Science students select to fulfill the Faculty of Science BSc requirement 6b. Details on both the requirement and how it is satisfied for the different majors are found in the Faculty of Science section of this Calendar. (The requirements for B.Sc are found on page 63)

Mathematics Major - Requirements

A Major in Mathematics can be completed in either a Bachelor of Arts or Bachelor of Science Program. The requirements for the degree of Bachelor of Science with Major apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Major, in Section Three. The specific list of required forty-eight (48) required credit hours of Major subject area courses used to satisfy 6(d) are as follows:

1. MATH 1210 and 1211

2. CSCI 1226 and one of CSCI 1227 or CSCI 1228.
3. MATH 2310 and MATH 2305
4. MATH 2311
5. MATH 2301 and MATH 2321
6. MATH 4420 and MATH 3441
7. Six (6) credit hours in MATH at the 3000 level or above
8. Nine (9) additional credit hours in MATH courses numbered 1216 or 2303 or above, chosen by the student in consultation with the Department.

Note: Students pursuing a major in MATH may receive credit for only one of: BIOL 3308, MATH 1216, MGSC 2207, and PSYC 2350.

A suggested sequence of courses for years 1 and 2 is available online on the Faculty of Science website listings for Program Requirement Tables. Students should consult with their Department or a Science Advisor for course selection and the suggested best sequence of courses for years 3 and 4.

Double Major in Mathematics and a subject other than Computing Science or Physics - Requirements

The Departmental requirements for a double major in mathematics and a subject other than computing science or physics are the same as the requirements for a major in mathematics. Students enrolled in this program may substitute another mathematics course(s) approved by the Department Chair for MATH 4420 and/or MATH 3441.

Honours in Mathematics - Requirements

The requirements for the degree of Bachelor of Science with Honours apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Honours, in Section Three.

The honours program is designed for mathematics majors of above average ability. Mathematics majors in Year 2 with a

CGPA of at least 2.50, and with a GPA of at least 3.00 in their mathematics courses, are encouraged to enrol in the honours program, and are advised to consult with the Department Chairperson about admission. Students are required to achieve a DGPA of at least 3.00 to graduate with Honours. The specific list of sixty-six (66) required credit hours of Honours subject area courses used to satisfy 11 (a) are as follows:

1. MATH 1210 and 1211
2. CSCI 1226 and one of CSCI 1227 or CSCI 1228
3. MATH 2305
4. MATH 2310 and 2311
5. MATH 2301 and 2321
6. MATH 3441, MATH 4420, MATH 4421 and MATH 4442.
7. A minimum of twenty-seven (27) additional credit hours in MATH courses numbered 1216 or 2303 or above, chosen by the student in consultation with the Department. At least twelve (12) credit hours must be at the 3000-level or above.

Note: Students pursuing an honours in MATH may receive credit for only one of: BIOL 3308, MATH 1216, MGSC 2207, and PSYC 2350.

A suggested program sequence for a B.Sc. with Honours in Mathematics and a complete list of the program requirements is available online on the Faculty of Science website listings for Program Requirement Tables. Students should consult with a Science Advisor or the Department Chair to select courses and to chart their program.

Double Honours in Mathematics and a subject other than Computing Science or Physics - Requirements

The Department requirements for a double honours in mathematics and a subject other than computing science or physics are the same as the requirements for a major in mathematics plus six (6) additional credit hours in mathematics courses numbered 3000 level or above.

Concentration in Mathematics (B.A. 90 credit) - Requirements

To obtain a concentration in Mathematics in partial fulfillment of the B.A. General degree (i.e., one with Double Arts Concentrations and a minimum of ninety (90) credit hours), a minimum of twenty-four (24) credit hours in MATH is required; also a minimum PGPA of 2.00 is required. Interested students should consult with an Arts Advisor or the Department Chair.

NOTE: Only one of MATH 1250 or MATH 1210 may be used to satisfy the requirements for a concentration in Mathematics in partial fulfillment of the B.A. General degree.

Concentration in Mathematics (B.Sc. – 90 credits) - Requirements

The requirements for the degree of Bachelor of Science – General with Concentration apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor

of Science – General (with a Concentration), in Section Three. The specific list of thirty (30) required credit hours in MATH used to satisfy 3(d) are:

- a. MATH 1210, 1211, 2305, 2310, 2311, 2301, and 2321
- b. An additional nine (9) credit hours in MATH numbered 1200 or above.

Interested students should consult with a Science Advisor or the Department Chair.

Mathematics Minor - Requirements

The requirements for a Minor apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Major and Minor, in Section Three. The specific list of thirty (30) required credit hours in MATH used to satisfy 9(b) are:

- a. MATH 1210, 1211, 2305, 2310, 2311, 2301, and 2321
- b. An additional nine (9) credit hours in MATH numbered 1200 or above.

Interested students should consult with a Science Advisor or the Department Chair.

Double Major or Double Honours in Mathematics and Physics - Requirements

Detailed requirements for these programs are found above in the Department of Astronomy and Physics.

Certificate in the Mathematical Sciences for Education

1. Introduction

The Certificate in the Mathematical Sciences for Education is intended to provide holders of a Bachelor of Education (B.Ed.) degree with a broad background in mathematics, statistics, and computing science, enabling them to teach high school mathematics courses effectively. Teachers who complete this program will have a deep understanding of the mathematics that they teach, and a familiarity with the various contexts in which their own university-bound students will use that mathematics. A teaching methods course is an integral part of this program.

2. Admission

To gain entry to this program, students must have a B.Ed. (or equivalent). They must also have at least Grade 12 precalculus mathematics (or equivalent) before starting MATH 1210. (Among possible equivalents are MATH 1190 and some non-credit courses offered at Saint Mary's.) **Note:** MATH 1190 forms part of the Certificate Program; the non-credit courses do not. Pre-calculus mathematics is not a prerequisite for MATH 1202.

Students must register in the actual program before starting courses.

3. Courses

Students must take at least thirty (30) credit hours as delineated below. Where the student has already obtained

credit for one or more of these courses (or equivalents) as part of a program leading to an earlier certification by the Nova Scotia Department of Education. MATH or CSCI courses numbered 1200 or above and acceptable to the Department of Mathematics and Computing Science may be substituted. (Students should note that each individual's program must be approved ahead of time by the Registrar for Teacher Certification in order to be recognized for teacher certification in Nova Scotia.)

MATH 1190	Fundamental Mathematics
MATH 1202	Concepts and Topics in Mathematics
MATH 1203	Concepts in High School Mathematics
MATH 1204	Introduction to Geometry
MATH 1210	Introductory Calculus I
MATH 1211	Introductory Calculus II
MATH 1216	Introduction to Mathematical Statistics
CSCI 1226	Introduction to Computing Science and Programming
MATH 2301	Applied Linear Algebra
EDUC 5523	Methods in Mathematics for In-Service Teachers

4. To obtain the Certificate, a student in this program must achieve a minimum grade of C in all courses forming part of the certificate.

5. The Department of Mathematics and Computing Science restriction on receiving credit for MATH 1210 and then receiving credit for MATH 1190 does not apply to the Certificate program.

6. All courses must normally be taken at Saint Mary's University. In very exceptional circumstances, the Department of Mathematics and Computing Science may recommend to the Acting Dean of Education for one or more courses to be taken at another university on a Letter of Permission. Courses taken at or transferred from other universities must meet the program's requirement of a minimum grade of C.

7. A student who intends to use this program to obtain a license upgrade or other professional certification **MUST** obtain **prior** written approval from the appropriate authorities (in Nova Scotia, the Registrar for Teacher Certification). **The student is responsible for obtaining such approval**; Saint Mary's University takes no responsibility for the approval of individual programs of study.

Course Descriptions

1190 Fundamental Mathematics

3 credit hours

Prerequisite: the equivalent of Nova Scotia Grade 12 Mathematics.

Students develop their understanding of the essential functions of mathematics (lines and quadratics, polynomial and rational functions, exponential and logarithmic functions, trigonometric functions) and are provided with extensive contextual practice with algebraic manipulation, equation solving, and curve sketching. Focus is placed on those topics/skills that are known to be essential for subsequent study of calculus.

Classes 3 hrs. plus recitation 1 1/2 hrs. a week.

Note: Credit will not be given for MATH 1190 following successful completion of MATH at the 1200-level or above or MGSC 1206 (exception: Certificate in Mathematical Sciences for Education Students).

1202 Concepts and Topics in Mathematics

3 credit hours

Prerequisite: Nova Scotia Grade 12 Academic Mathematics (or equivalent)

This course is intended for those who are teaching or who plan to teach at the elementary school level. Fundamental concepts and topics in mathematics provide the necessary background for elementary school teachers. Topics include: the axioms of arithmetic and algebra, the integer, rational, and real systems, sets and logic.

Note: This course may not be used as a Science elective by B. Sc. students to satisfy B. Sc. requirements 3.e., 6.e., 10.b., or 12.b.

Classes 3 hrs. and recitation 1.5 hrs. a week

1203 Concepts in High School Mathematics

3 credit hours

Prerequisite: MATH 1202.

This course is designed for those who teach or who plan to teach at the junior high or high school level. Topics include: algebra, geometry, probability, and statistics. Material is taught in significantly greater depth than would actually be taught in the school classroom.

Classes 3 hrs. a week plus recitations 1.5 hrs. a week

Note: This course may not be used as a Science elective by B. Sc. students to satisfy B.Sc. requirements 3.e., 6.e., 10.b., or 12.b.

1204 Introduction to Geometry

3 credit hours

Prerequisite: MATH 1203 or Math 1210 or MATH 1250

This course is an introduction to Euclidean geometry, designed for those who teach or who plan to teach mathematics at the junior high or high school level. Topics include: coordinate, axiomatic, constructive, and transformational geometry with some emphasis on the concept of mathematical proof.

Note: This course may not be used as a Science elective by B. Sc. students to satisfy B.Sc. requirements 3.e., 6.e., 10.b., or 12.b.

1210 Introductory Calculus I

3 credit hours

Prerequisite: Nova Scotia Grade 12 Pre-Calculus or equivalent and either MATH 1190 or satisfactory performance on the MATH Placement Test.

This is a first course in calculus, intended for science and engineering students. Core topics include: functions, limits,

continuity, differentiability; derivatives of algebraic and transcendental functions, applications of the derivative (e.g., curve sketching, optimization, L'Hôpital's Rule); antiderivatives; area under curves; and the fundamental theorem of calculus.

Classes 3 hrs. plus recitation 1 1/2 hrs. a week.

Note: Students whose performance on the MATH Placement Test does not indicate their readiness for MATH 1210 are directed to register for MATH 1190.

1211 Introductory Calculus II

3 credit hours

Prerequisite: MATH 1210.

This is a continuation of MATH 1210, and is intended for science and engineering students. Core topics include: techniques of integration, applications of the definite integral (e.g. area, volume, arc length); improper integrals, separable differential equations; parametric equations, polar coordinates, sequences and series; power series; Taylor and Maclaurin series, elementary multivariate calculus.

Classes 3 hrs. plus recitation 1 1/2 hrs. a week.

1216 Introduction to Mathematical Statistics

3 credit hours

Prerequisite: MATH 1210 or MATH 1250.

This course provides a mathematically rigorous introduction to statistics, based on calculus. Introductory probability theory is covered, including probability distributions and densities, random variables, the central limit theorem, and counting methods. Statistical inference is then covered, including estimation and confidence intervals, hypothesis tests-

Classes 3 hrs. plus recitation 1 1/2 hrs. a week.

NOTE: Credit will not be given for both MATH 1216 and any of BIOL 3308, PSYC 2350, or GEOG 3326.

1250 Calculus for Life Sciences I

3 credit hours

Prerequisite: Nova Scotia Grade 12 Pre-Calculus Mathematics (or equivalent)

Students are introduced to applied calculus intended for students interested in the life sciences. Topics include: differentiation and antidifferentiation of common functions, general differentiation rules, curve sketching, limits at infinity, growth of functions, implicit differentiation, related rates, and optimization.

Classes 3 hrs. and recitation 1.5 hrs. per week.

Note: Credit will not be given for MATH1250 taken concurrently with or after successful completion of MATH1210. Only one of MATH 1210 or MATH1250 may be used to satisfy B.Sc. requirements 3.b or 6 b.

1251 Calculus for Life Sciences II

3 credit hours

Prerequisite: MATH 1250 or MATH 1210

This course is a continuation of MATH 1250. Topics include: the integral; methods and applications of integration; differential equations; and an introduction to multivariable calculus (functions of several variables, partial derivatives).

Classes 3 hrs. and recitation 1.5 hrs. per week.

Note: Credit will not be given for both MATH 1251 and MATH 1211.

2301 Applied Linear Algebra

3 credit hours

Prerequisite: Nova Scotia Grade 12 Pre-calculus Mathematics or equivalent.

This is a first course in linear algebra intended for students in Science or Engineering. Topics include: complex numbers, geometric vectors in three dimensions, equations of line and planes, systems of equations, Gaussian elimination, matrix algebra, vector spaces, linear transformations: definition and examples, null space and range, eigenvalues and eigenvectors, and orthogonality.

Classes 3 hours plus recitation 1 1/2 hours a week.

Note: Credit will not be given for both MATH 2301 and MATH 2320.

2303 Differential Equations I

3 credit hours

Prerequisite: MATH 1211.

First order differential equations: separable equations; exact equations; integral equations; integrating factors; linear differential equations; modelling electric circuits. Second order differential equations: homogeneous linear equations; constant coefficient equations; Euler-Cauchy equations; Wronskian; non-homogeneous equations; undetermined coefficients; variation of parameters; modelling forced oscillations and resonance modelling electric circuits phasor methods for particular solutions. Power series solutions. Legendre's equation. Laplace transform, inverse transform. Linearity; transforms of derivatives and integral; s-shifting; t-shifting; unit step. Differentiation and integration of Laplace Transforms. Partial fractions method for inverse Laplace Transform. Applications to systems of differential equations, convolutions, the delta function, impulse response, transfer function. Periodic driving functions and Laplace Transforms. Fourier series; even and odd functions; half range expressions; Complex Fourier series; applications to systems driven by various periodic functions (e.g., square, wave, saw tooth, etc.). The line spectrum.

Classes 3 hours plus recitation 1 1/2 hours a week.

2305 Survey of Discrete Mathematics

3 credit hours

Prerequisite: Nova Scotia Grade 12 Pre-Calculus Mathematics or equivalent.

This course provides an overview of a number of topics in discrete mathematics including sets, set operations, basic number theory, modular arithmetic, logic, proof techniques such as mathematical induction and proof by contradiction,

elementary counting techniques, and a brief introduction to probability and networks.

Classes 3 hrs. plus recitation 1 1/2 hrs. a week.

2307 Theoretical Foundations of Computing Science [CSCI 2307]

3 credit hours

This course complements CSCI 2341. It uses various mathematical concepts to define tools and address problems of fundamental status in Computing Science. Topics will involve notions related to graphs, formal languages and computability. Moreover, depending on the focus, other fundamental tools will be considered, which are utilized in topics such as database modeling, information coding, complexity, knowledge modeling, program correctness and automated reasoning.

Classes 3 hrs. plus recitation 1.5 hrs. a week.

2308 Introduction to Numerical Analysis [CSCI 2308]

3 credit hours

Prerequisite: MATH 1211, and CSCI 1226 or equivalent programming experience.

Students focus on a discussion of errors in numerical analysis. Topics include: theoretical and practical considerations of numerical procedures in non-linear equations in one variable, systems of linear equations, and systems of non-linear equations, interpolation, polynomial approximation and integration.

Classes 3 hrs. plus recitation 1.5 hrs. a week.

2310 Introductory Analysis

3 credit hours

Prerequisite: MATH 2305 and MATH 2311.

This course is a rigorous study of the metric topology of the real line, sequences of real numbers, continuity of functions on the real line, and sequences of functions on real line. Compactness in higher-dimensional Euclidean spaces and the concept of a metric will also be discussed. Additional topics may include: elementary asymptotics; power series; uniform convergence and uniform continuity; and Riemann sums and integration.

Classes 3 hrs. plus recitation 1 1/2 hrs. a week.

2311 Intermediate Calculus

3 credit hours

Prerequisite: MATH 1211

Topics include: limits and continuity of functions of several variables, partial derivatives, and the chain rule, directional derivatives and gradient vector, the total differential, tangent planes and normals to a surface, higher order partial derivatives, extrema of functions of two variables, Lagrange multipliers, double integrals, iterated integrals, double integrals in polar coordinates, applications of double integrals, the triple integral, triple integrals in cylindrical and spherical coordinates, applications of triple integrals vector fields, divergence and curl of vector fields, line integrals,

path-independent line integrals. Green's theorem, Stokes' theorem, and the divergence theorem.

Classes 3 hrs. plus recitation 1 1/2 hrs. a week.

2315 Introduction to Probability Theory

3 credit hours

Prerequisite: MATH 1210 and MATH 2305.

This course covers the probability theory which underlies fundamental statistical concepts. It assumes a good knowledge of first-year calculus, and may cover the following topics: probability, conditional probability, Bayes' Theorem, random variables, order statistics, discrete distributions, continuous distributions, expected values, moments, and special distributions including the Poisson, normal, binomial, exponential, and gamma distributions.

Classes 3 hrs. plus recitation 1 1/2 hrs. a week.

2321 Linear Algebra II

3 credit hours

Prerequisite: MATH 2301 or MATH 2320 and MATH 2305.

This course continues MATH 2301 with further concepts and theory of linear algebra. Topics include inner product spaces, orthogonality, Gram-Schmidt Process, linear transformations and their matrix representation, change of basis and similarity, further study of eigenvalues and eigenvectors, canonical forms, with applications to linear differential equations and quadratic forms.

Classes 3 hrs. plus recitation 1.5 hrs. a week.

3309 Selected Topics in Numerical Analysis [CSCI 3309]

3 credit hours

Prerequisite: MATH 2308 [CSCI 2308] or permission of instructor.

Select topics are further explored and may include linear least squares, eigenvalues and eigenvectors and optimization.

Classes 3 hrs. plus recitation 1.5 hrs. a week.

3406 Differential Equations II

3 credit hours

Prerequisite: MATH 2311; MATH 2303 or MATH 3405; MATH 2301 or MATH 2320.

Theory of systems of linear differential equations, linear systems with constant coefficients, solution by matrix methods, applications. Nonlinear differential equations: existence and uniqueness of solutions, stability and the phase plane, Liapunov Method. Various equations occurring in applications are qualitatively analyzed, Chaos and bifurcation.

3415 Mathematical Statistics

3 credit hours

Prerequisite: MATH 2311 and a course in computer programming language.

Students study mathematical foundations of statistics, including both parametric and non-parametric inferences. Emphasis is placed on the properties of random variables and their distributions. The estimation of parameters by using sample statistics and tests of related hypotheses are included. Applications to computer science are studied.

3434 Geometry

3 credit hours

Prerequisite: MATH 2305, MATH 2310, MATH 2311, and MATH 2321.

Many important ideas of modern mathematics, such as the axiomatic method, emerged from the study of geometry. Students examine topics in geometry from Euclid to the present day, which may include axiomatic geometry, constructive geometry, inversive geometry, projective geometry, non-Euclidean geometry, and combinatorial geometry.

3441 Real Analysis I

3 credit hours

Prerequisite: MATH 2305, MATH 2310 and MATH 2311.

Topics include; open and closed sets in metric spaces, boundedness, total boundedness, compactness, sequences, completeness, continuity, uniform continuity, sequences of functions, pointwise and uniform convergence, metric spaces of functions, theorems of Baire, Arzela-Ascoli, and Stone-Weierstrass.

3826 – 3849 Special Topics in Mathematics

3 credit hours

Prerequisite: permission of instructor.

Approved seminar courses dealing with specialized subject-matter that are announced from time to time by the Department.

4408 Numerical Solution of Initial Value Problems [CSCI 4408]

3 credit hours

Prerequisite: MATH 2308 [CSCI 2308] or permission of instructor.

Students consider the numerical solution of initial value ordinary differential equations. Topics may include multi-step methods, Runge-Kutta methods, stability, stiffness, step-size selection, local error, etc.

4409 Numerical Solution of Boundary Value Ordinary Differential Equations [CSCI 4409]

3 credit hours

Prerequisite: MATH 2308 [CSCI 2308] or permission of instructor.

This course is concerned with the numerical solution of boundary value ordinary differential equations. Topics may include finite difference methods, shooting methods, collocation methods, conditioning, mesh selection, error estimation, etc.

4420 Abstract Algebra I

3 credit hours

Prerequisite: MATH 2321 and MATH 2305.

The study of algebraic structures, such as groups, rings, fields, posets, graphs, or universal algebras. The major emphasis is on derivation of theory, with inclusion of applications and examples.

4421 Abstract Algebra II

3 credit hours

Prerequisite: MATH 4420 or permission of instructor.

This course is a further study of algebraic structures and their applications.

4426 Introduction to Combinatorics

3 credit hours

Prerequisite: MATH 2305.

Students are introduced to various enumeration techniques and will include such topics as permutations and combinations, recurrence relations and generating functions. Various finite structures and their applications are also studied.

4427 Computational Methods in Graph Theory [CSCI 4427]

3 credit hours

Prerequisite: MATH 2311 or MATH 2320 or MATH 2301 or permission of instructor.

Various graph theoretic algorithms and their application to different problems are discussed. Topics are chosen from the following: the connector problem, the shortest path problem, the Chinese Postman problem and Euler trails, matchings and their applications to the personnel and optimal assignment problems, colouring problems (with reference to timetabling) and flows in networks.

4432 Elementary Topology

3 credit hours

Prerequisite: MATH 3441.

This course will begin with a study of the topology of ordering and ordinals, and indexed unions, intersections, and products. Topics will include bounded and totally bounded sets, completeness and fixed point theorems. Following this, abstract topological spaces will be studied.

4436 Theory of Functions of a Complex Variable I

3 credit hours

Prerequisite: MATH 2310 and 2311.

The complex plane. Elementary transformations and mappings, analytic functions, infinite series and uniform convergence. Differentiation and integration in the complex plane, residue. Harmonic functions, entire and meromorphic functions. Some principles of conformal mapping theory.

4437 Theory of Functions of a Complex Variable II

3 credit hours

Prerequisite: MATH 4436.

A continuation of MATH 4436. Further study of analytic functions and conformal mapping theory.

4442 Real Analysis II

3 credit hours

Prerequisite: MATH 3441 (formerly 4441).

This course includes further topics on metric spaces. Topics include: Baire category theorem, the space of continuous functions, fixed points and integral equations, Arzela-Accoli theorem, the Stone-Weierstrass theorem, Picard existence theorem for differential equations, Riemann Integrability, sets of measure zero, and Lebesgue Theorem.

4500 Thesis

6 credit hours

Prerequisite: permission of Department.

Research project in the mathematical sciences carried out by the student under the supervision of any member of the Department. The student will submit a thesis and present it orally. This course is open to 4th year honours students.

Directed study 6 hrs. a week. 2 semesters.

4826 – 4849 Special Topics in Mathematics

3 credit hours

Prerequisite: permission of instructor.

Approved seminar courses dealing with specialized subject-matter that are announced from time to time by the Department.

4876 - 4899 Directed Study in Mathematics

3 credit hours

Prerequisite: permission of instructor.

This course is intended to supplement or provide an alternative to the regular mathematics courses in order to meet the special needs and interests of students. The course provides an opportunity to study a particular subject in detail and requires from the student some measure of independence and initiative.

Peace and Conflict Studies (PCST)

For more information, contact: B. Sewell, Associate Professor, History

A minor in Peace and Conflict Studies is available to undergraduate students in all three faculties. This minor offers students flexibility in their choice of disciplinary areas of study while promoting a broad multidisciplinary understanding of peace and conflict topics.

Minor Program (Interdisciplinary)

As a minor, students are required to earn twenty-four (24) credit hours at the 2000 level or higher with a minimum GPA of 2.00 in Peace and Conflict relevant courses. A minimum of twelve (12) credit hours are required from the Humanities and a minimum of twelve (12) credit hours are required from the Social Sciences. Available courses will be posted each year through the Faculty of Arts web site at <http://www.smu.ca/academics/arts-minor-in-peaceconflict-studies.html>

The courses below form a partial list of approved courses for the Peace and Conflict Studies Minor. Other courses may be eligible for credit – please consult the Coordinator or the BA Advising Centre. Please note that not all courses below are offered every year, and some courses may have prerequisites.

HUMANITIES**Classics**

CLAS 2453 Republic and Revolution: Roman History I [HIST 2453]

CLAS 2500 War and Society in the Ancient Mediterranean [HIST 2500]

CLAS 3411 Great Trials of Ancient Athens

CLAS 3420 International Relations Eastern Mediterranean Style

Education

EDUC 4461 Language, Culture, and Education

English

ENGL 4427 Language, Gender and Power [LING 3427; WMST 4427]

ENGL 4466 Representations of Indigenous Womanhood

ENGL 4493 Doing Discourse Analysis [LING 4493]

ENGL 4494 Approaches to Discourse Analysis [LING 4494]

History

HIST 2317 Africa in the 20th Century: Colonialism and Independence

HIST 2336 Revolution, Reform and Respectability: Britain 1688 - 1870

HIST 2355 Late Tokugawa and Imperial Japan: 1800-1945

HIST 2382 China in Revolution: 1800-1949

HIST 2393 History of Vietnam

HIST 2394 History of Korea

HIST 2402 History of Cuba

HIST 2420 The World at War, 1914-1918

HIST 2421 The World at War, 1939 – 1945

HIST 2440 Revolutions in Latin America

HIST 2826 WW War and Society

HIST 3110 Women in the Two World Wars

HIST 3417 War and Memory in the Twentieth Century

HIST 3460 Issues in Modern Irish History [IRST 3460]

HIST 3475 Indigenous and Settler Histories

HIST 4520 Nazi Germany, Occupied Europe and the Holocaust

HIST 4572 Memories of WW II in China

HIST 4573 The Rise and Fall of the Japanese Empire

Irish Studies

IRST 3325 The Irish and Atlantic Canada [ACST 3325]

Religious Studies

RELS 2342 Violence

RELS 2350 Faith in Action: Religion and Social Movements

SOCIAL SCIENCES

Anthropology

ANTH 3334 Warfare and Aggression: Anthropological Approaches to Human Conflict

ANTH 3572 Archaeology of Empire

ANTH 4474 Human Variation

Criminology

CRIM 3205 Restorative Justice in Theory

CRIM 3220 Race, Racism and Colonialism [SOCI 3220]

CRIM 3505 Prisons and Punishment [SOCI 3505]

CRIM 3507 Policing and Society [CRIM 3507]

CRIM 3509 Victims and Criminal Justice [SOCI 3509]

CRIM 3526 Organized Crime [SOCI 3526]

CRIM 3610 Practicum in Social Development [SOCI 3610]

CRIM 4205 Restorative Justice Practicum

CRIM 4210 Forced Migration and Refugees [SOCI 4210]

CRIM 4303 Canadian Penal Policy, Practices, and Research

CRIM 4420 Genocide [SOCI 4420]

CRIM 4421 War as Crime [SOCI 4421]

CRIM 4512 Issues in Juvenile Justice [SOCI 4512]

CRIM 4515 Drugs and Power in Latin America [SOCI 4515]

CRIM 4610 Practicum in Community Development [SOCI 4610]

Political Science

POLI 3456 Issues in International Security

POLI 4843 Selected Topics: Politics & Peace in Northern Ireland

Sociology

SOCI 3423 Ethnic Conflict

Philosophy (PHIL)

Chairperson	M. Mercer
Undergraduate Advisor & Graduate Program	
Coordinator	T. Calder
Professors	S. Crooks, L. Gannett, M. Mercer, S. Wein
Associate Professors	T. Calder, S. Edgar, J. MacKinnon
Assistant Professors	R. Ansell
Adjunct Professor	H. Van Wilgenburg
Professor Emeritus	W. Grennan

Website: www.smu.ca/academic/arts/philosophy

General Information

Throughout our lives, we are frequently assailed by philosophical perplexity. Are knowledge and morals a matter of preference and perspective, or are there such things as objective truths and values? What indeed is worth valuing? Is there a God? Is the mind separable from the body? What is the nature of meaning? How ought we to organize ourselves in society? How can we balance considerations of liberty with those of equality?

The ultimate aim of a philosophy course is not merely to assist students in understanding the writings of those thinkers who have addressed these important issues, but also to equip students with the means by which they themselves can profitably grapple with the same questions. A student's development within the discipline, therefore, depends not just on a critical and imaginative engagement with the material, but on dialogue with others, both inside and outside of the classroom.

Philosophy furnishes a good grounding for personal development and citizenship. It contributes significantly to the development of inquisitive and independent minds. Given the emphasis in philosophy on argument and analysis, there is no better preparation for a career in law. And since philosophy places a premium on precision of thought and communication, it provides an excellent background for a career in journalism and publishing, policy-making, education, and counseling. Philosophy graduates also attest

to the indispensable value of their education to careers in management, healthcare, research, and planning.

The Department of Philosophy offers a full range of undergraduate courses. Students may obtain an honours degree in philosophy, be a philosophy major, do a minor in philosophy, or earn a concentration in philosophy. Students should consult with the undergraduate advisor to arrange a selection of courses that fits their individual interests and meets Department requirements. In addition, the Department offers a pre-law option, a double-honours with physics, and a master's degree.

PHIL 1200 is the **ONLY** philosophy course that satisfies regulation 3b of the Faculty of Arts degree requirements.

1. Major in Philosophy

Students majoring in philosophy must complete at least thirty-six (36) credit hours in philosophy. At least twenty-four (24) of these credit hours must be above the 1000 level, and of these twenty-four credit hours, at least twelve (12) credit hours must be at the 3000 level or above.

2. Major in Philosophy: Pre-Law

Students majoring in philosophy and taking the pre-law option must complete all the requirements for a major in philosophy. It is recommended that they take the following courses:

PHIL 1200	Critical Thinking
PHIL 2302	Ethics
PHIL 2332	Ethics and the Law
PHIL 2333	Philosophy of Law

3. Double Major

A student may major in philosophy and another subject. The student normally completes thirty-six (36) credit hours in philosophy and should consult the undergraduate advisor.

4. Honours Program

To qualify for the degree of Bachelor of Arts (Honours) in philosophy, a student must: (a) meet the general requirements of the Faculty of Arts set out in regulations 8-14, Section 3 of this *Calendar*; and (b) complete sixty (60) credit hours in philosophy, no more than twelve (12) credit hours at the 1000 level and a minimum of twenty-four (24) credit hours at or above the 3000 level. Typically, an honours graduate will have completed PHIL 1201, twenty-four (24) credit hours in 2000-level credits, and thirty (30) credit hours in 3000- and 4000-level credits. Students have the option of completing an Honours Thesis (PHIL 4599). The Chairperson or the Undergraduate Advisor will assist the student in selecting courses.

5. Double Honours in Philosophy and Physics

Students pursuing a Bachelor of Arts (Honours) in philosophy and physics or a Bachelor of Science (Honours) in physics and philosophy must complete a minimum of forty-two (42) credit hours of courses in each discipline. Philosophy course recommendations include nine (9) credit hours in core courses (PHIL 1255/PHYS 1370, PHIL 2318, PHIL 3448, or PHIL 4515/PHYS 4370 [counting as nine (9) hours from PHIL and three (3) hours from PHYS], twelve (12) credit hours in history of philosophy, twelve (12) credit hours in contemporary philosophy, and nine (9) additional credit hours. It is recommended that Bachelor of Arts (Honours) students also complete the honours thesis, PHIL 4599, while Bachelor of Science (honours) students are required to complete PHYS 4790. Please consult the Astronomy and Physics Calendar entry for detailed four-year plans for each of these combined degree options. Students are also encouraged to consult each department's undergraduate advisor for further details.

6. Minor in Philosophy

A minor in Philosophy requires a minimum of twenty-four (24) credit hours, at least twelve (12) credit hours of which must be above the 1000 level.

7. Concentration in Philosophy

To obtain a concentration in Philosophy in partial fulfilment of the B.A. General degree [i.e., one with Double Arts Concentrations and a minimum of ninety (90) credit hours], a student must acquire twenty-four (24) credit hours in PHIL, at least twelve (12) of which are above the 1000 level, and attain a minimum cumulative grade point average of 2.00. Further details are available from the Undergraduate Advisor.

8. Master's Program

The general requirements for a Master of Arts in Philosophy are set out in the *Graduate Academic Calendar*.

9. Prerequisites

Except where otherwise stated, the prerequisite for 2000 level courses is at least nine (9) credit hours in the University; the prerequisite for 3000 level courses is six (6) credit hours in philosophy; and the prerequisite for 4000 level courses is twelve (12) credit hours in philosophy, of which at least six (6) credit hours must be above the 1000 level.

Course Descriptions

1200 Critical Thinking

6 credit hours

This course is an introduction to essential principles of reasoning and critical thinking. It is designed to develop students' abilities to evaluate various forms of reasoning, to examine critically beliefs, conventions, and theories, and to develop sound arguments. Emphasis will be given to decision-making and arguments in ordinary language, particularly those addressed to issues of public concern and moral debate.

1201 Introduction to Philosophy

6 credit hours

Philosophy is devoted to the critical and creative examination of such fundamental questions as: What can be known? Does existence have meaning? What is a worthwhile life? What moral obligations do people have to one another? What makes a society just? Philosophy provides systematic training in the framing of these questions and in the rigorous analysis of the issues they involve.

Note: Students cannot receive credit for PHIL 1306 or PHIL 1600 if they receive credit for PHIL 1201 and vice versa. However, students can receive credit for both PHIL 1306 and PHIL 1600.

1222 Ethics for Modern Life

6 credit hours

The course examines competing moral perspectives on topics such as capital punishment, suicide, euthanasia, abortion, genetic engineering, friendship, marriage, parenthood, discrimination, inequality, poverty, foreign aid, and the environment. The aim is to help the student to develop a coherent set of principles to deal with these and other topics.

1244 Human Freedom

3 credit hours

The traditional problems of free will and political freedom and different concepts and conceptions of freedom and liberation are considered. In addition, there will be an examination of some contemporary thought on freedom and liberation.

1245 Philosophies of Life

3 credit hours

An examination of the major philosophies of life and an assessment of the reasons for and against their adoption. Consideration will be given to various forms of collectivism and individualism and to various views of what is ultimately worth striving for.

1246 Sex and Sexuality

3 credit hours

The philosophy of sex and sexuality concerns the nature and moral significance of sexual behaviors. Topics may include the concept of sex, sexual identity, sex and love, sex and marriage, rape, and prostitution.

1248 Killing and Letting Die

3 credit hours

When, if ever, is it morally permissible to kill another human being, or yourself? What is morally problematic about killing? Is killing morally worse than letting die? Are we morally obligated to prevent as many deaths as we can? This course explores these questions and others through a discussion of classical and contemporary philosophical readings.

1255 Scientific Method [PHYS 1370]

3 credit hours

This course provides a historical and logical analysis of methods commonly used in science. Possible topics include science vs. pseudo-science, natural vs. social sciences, modes of reasoning, observation and experimentation, construction and empirical testing of theories and models, and thought experiments.

1304 Propaganda and Truth

3 credit hours

Is truth relative to cultures or ways of seeing the world? Is objectivity a fiction? Is the claim to have the truth merely a tactic of manipulation? Is sincere advocacy just another form of propaganda? These are a few of the questions we will ask in this course.

1306 Reality, Thinking, and the Self

3 credit hours

Does God exist? Do souls exist? What is the self? Could a computer ever think? What can we know about reality? Students explore these questions and others through a discussion of classical and contemporary philosophical readings.

Note: Students cannot receive credit for PHIL 1306 or PHIL 1600 if they receive credit for PHIL 1201 and vice versa. However, students can receive credit for both PHIL 1306 and PHIL 1600.

1360 Autonomy and Education [EDUC 1360]

3 credit hours

Students will examine autonomy as a concept, and-evaluate its appropriateness as an educational goal. Students will be challenged to consider the role of education in their personal growth and development, as well as possibilities for their own agency in this development.

1600 The Good, the Bad, and the Ugly

3 credit hours

Are such values such as good and bad, or beautiful and ugly, a part of the nature of the world or do they exist only in our minds? What is the role of pleasure and virtue, or knowledge and beauty in a life well lived? Students consider the work of moral philosophers and philosophers of art who try to identify the concepts and principles that help us to answer these questions.

Note: Students cannot receive credit for PHIL 1306 or PHIL 1600 if they receive credit for PHIL 1201 and vice versa. However, students can receive credit for both PHIL 1306 and PHIL 1600.

2301 Introduction to Symbolic Logic

3 credit hours

Prerequisite: 24 credit hours

This course introduces the fundamentals of symbolic logic. Both the propositional and predicate calculus are covered as well as various standard proof techniques.

2302 Ethics

6 credit hours

Prerequisite: 9 credit hours

An introduction to moral philosophy designed to lead the student to examine the foundations of their moral positions. To this end historical and contemporary answers by philosophers to questions such as the following will be examined: What ought I to do morally and ultimately why I ought to do it? Are ethical positions simply relative: (a) to a person? (b) to a society? What is the relation between science and morality? Why be moral?

2303 Right and Wrong

3 credit hours

Students examine theories of right and wrong. Some of the questions students will discuss include: do the ends justify the means? Is right and wrong relative to a culture? Can we justify a particular set of moral rules? Is deception always morally wrong? When, if ever, is killing morally permissible?

Note: Students cannot receive credit for both PHIL 2303 and PHIL 2302.

2304 Evil

3 credit hours

Prerequisite: 9 credit hours

This course is about the nature and significance of evil events, actions, characters, and institutions. Topics include historical accounts of evil, suffering, skepticism about evil, evil and mental illness, terrorism, torture, and genocide.

2305 Environmental Ethics

3 credit hours

Prerequisite: 9 credit hours

The nature of the ecological crisis will be examined. Philosophical responses to it will be presented which will involve analysis of the concepts of animal rights, of the intrinsic value of nature, and of obligations to future generations. A portion of the course will be spent on the application of the theoretical concepts to specific ecological issues including population and world hunger, pollution, and the sustainable society. Part of the objective of the applied section will be to raise issues of public policy within a philosophical framework.

2311 Political Philosophy: The Classic Texts

3 credit hours

Prerequisite: 9 credit hours

A critical examination of core works in the history of political philosophy. Philosophers discussed often include Plato, Aristotle, Machiavelli, Hobbes, Locke, Mill, Rousseau, Marx, and Nietzsche.

2312 Contemporary Political Philosophy

3 credit hours
Prerequisite: 9 credit hours

This course introduces students to the major schools of contemporary political thought, such as utilitarianism, liberal egalitarianism, libertarianism, Marxism, communitarianism, and feminism. Among the issues addressed are the justification of state power, the role of human nature in determining political arrangements, democracy and the rights of minorities, the tension between liberty and equality, and the just distribution of resources.

2318 Science and Society

3 credit hours
Prerequisite: 9 credit hours

This course studies science in its social context. Contemporary and historical case studies provide a basis for examining effects of scientific and technological innovation on society, whether social values are implicated in scientific discovery and justification, and ways in which social and economic institutions shape scientific practice.

2319 The Meanings of Technology

3 credit hours
Prerequisites: 9 credit hours

Students consider such topics as: the relations among science, technology, and engineering, the centrality of design to technology, the virtues and vices of looking for technological solutions to human problems, the technological world-view, technology and sex or gender, and technology and risk.

2325 Philosophical Issues in International Development

3 credit hours
Prerequisite: 9 credit hours

This course will examine various philosophical issues concerning international development. Among the issues addressed will be the nature of development, how to measure development, the extent to which those who are well off have a duty to aid those in need, the limits to which it is morally acceptable to place conditions on receipt of aid, and the extent to which it is appropriate for developing countries to protect their cultures from the forces of globalization.

2327 Classic Readings in Philosophy of Mind

3 credit hours
Prerequisite: 9 credit hours

Students will study writings on mind by important philosophers from antiquity to the twentieth century.

2328 The Mind-Body Problem

3 credit hours
Prerequisite: 9 credit hours

What is the relation between your thoughts and feelings and whatever is happening simultaneously in your brain and the rest of your body? This course introduces students to

arguments for and against a variety of answers to this question.

2329 Thoughts, Emotions, and Intentions

3 credit hours
Prerequisite: 9 credit hours

Students in this course investigate the nature of consciousness, feelings, and motivation.

2330 Philosophy of Religion

3 credit hours
Prerequisite: 9 credit hours

A philosophical examination of the nature and rationality of religious belief and practices.

2331 Business Ethics

3 credit hours
Prerequisite: 9 credit hours

An examination of the extent to which business objectives can, must, or do conflict with moral objectives, and of the extent to which business organizations can be brought into harmony with moral objectives. This will involve treatment of the relevant aspects of ethical theory.

2332 Ethics and the Law

3 credit hours
Prerequisite: 9 credit hours

This course will be concerned with topics such as punishment, the legislation of morality, the notion of mitigating circumstances, and the role of the victim in legal proceedings.

2333 Philosophy of Law

3 credit hours
Prerequisite: 9 credit hours

Topics covered often include natural law theory, legal positivism, the separability thesis, relations between law and morality, legal interpretation, the economic analysis of the law, and legal skepticism.

2345 Greek Philosophy: The Presocratics and Plato [CLAS 2345]

3 credit hours
Prerequisite: 9 credit hours

Students examine Greek philosophy before the time of Socrates followed by careful readings of selected dialogues by Plato.

2346 Greek Philosophy: Aristotle and The Hellenists [CLAS 2346]

3 credit hours
Prerequisite: 9 credit hours

Students study Aristotle's views (focusing on topics in metaphysics, psychology, knowledge, and ethics), together with a brief examination of several Hellenistic philosophers.

2349 Arguing about Art

3 credit hours
Prerequisite: 9 credit hours

Students address a number of topics concerning the arts that preoccupy contemporary philosophers, such as: the art instinct, our emotional engagement with fiction, the enjoyment of horror, the aesthetics of photography, everyday aesthetics, public art, the role of museums, and outsider art.

2358 Philosophy of Human Nature

3 credit hours
Prerequisite: 9 credit hours

Is there such a thing as a fixed and essential human nature? If so, what is it? What are we like as beings in the universe, on earth, in history? This course will consider a range of classical and contemporary responses to these questions. Included among the views that will be addressed are those of Aristotle, Hobbes, Rousseau, Darwin, Marx, and Freud, as well as existentialist, behaviorist, and feminist accounts.

2362 Philosophy and Literature

3 credit hours
Prerequisite: 9 credit hours

Works that have been discussed in recent years include: Shakespeare's *King Lear*, Marlowe's *Dr. Faustus*, Melville's *Billy Budd*, Conrad's *Lord Jim*, Walker Percy's *The Moviegoer*, Tom Stoppard's *Jumpers*, and Richard Ford's *The Sportswriter*. Students seek to answer philosophical questions about literature. For instance, what cognitive and moral values are associated with our reading of literature? How do we explain our emotional reactions to fictional works? Why do we enjoy the experiences elicited by literary tragedy and horror?

2365 Philosophy of Education: Classic Texts [EDUC 2365]

3 credit hours
Prerequisite: 9 credit hours

A critical examination of influential works in the history of educational thought.

2368 Bioethics

3 credit hours
Prerequisite: 9 credit hours

Medical technology has created moral issues that cannot be settled simply on the basis of medical facts. Both the medical profession and society as a whole must make value decisions before life and death issues such as abortion, euthanasia, and treatment of the insane can be settled. This course is intended to help the student reach reasoned conclusions on these issues through clarification and appraisal of arguments.

2385 Philosophical Issues in Feminism [WMST 2385]

3 credit hours
Prerequisite: 9 credit hours

This course examines philosophical issues in feminism, such as sexism, oppression, social construction, essentialism,

gender, race, and class. Attention is paid to ties between theory and practice.

2401 Games and Sport

3 credit hours
Prerequisite: 9 credit hours

Students examine questions such as: Are all sports games? What is a game? What ethical constraints should be imposed on participants in games and sports? What values should games and sports encourage?

2456 The Meaning of Life

3 credit hours
Prerequisites: 9 credits hours

Does life have a meaning? How can you live your life authentically? What defines who you are? Students examine answers to these questions from the nineteenth- and twentieth-century existentialist and alternative traditions (including, e.g., Kierkegaard, Nietzsche, Heidegger, Sartre, de Beauvoir, and Camus).

3000 Metaphysics

6 credit hours
Prerequisite: 6 credit hours in PHIL

Metaphysics seeks to determine whether we can know any general truths about the world. What is it to exist? What is it to be an individual? What are the fundamental kinds of things and relations? Consideration is given to the principal metaphysical theories that form part of the Western philosophical tradition, e.g., materialism, idealism, dualism, and monism. The course will also consider the major problems and concepts of metaphysics, e.g., time, space, substance, essence, free will, determinism, and causality.

3200 Environmental Aesthetics

3 credit hours
Prerequisite: 6 credit hours in PHIL

Environmental Aesthetics is concerned with aesthetic appreciation of nature and human-made or human-influenced environments. Topics will include the nature and value of natural beauty, the relationship between art appreciation and nature appreciation, the role of knowledge in the aesthetic appreciation of nature, and the importance of environmental participation to the appreciation of environments.

3317 Wealth, Money, and Economics

3 credit hours
Prerequisite: 6 credit hours in PHIL

Students explore various views on the nature and value of both wealth and money. In addition, attention will be paid to what economic rights are and which ones best serve social interests. No knowledge of economics is presupposed.

3348 Aesthetics

3 credit hours
Prerequisite: 6 credit hours in PHIL

Students examine philosophical aesthetics. Topics include: representation, expression, the cognitive aspects of art and aesthetic experience, the logic of taste, aesthetic value, and the relation between art and emotion, as well as the nature of certain art forms, like those of literature, architecture, and dance.

3365 Philosophical Foundations of Education [EDUC 3365]

3 credit hours

Prerequisite: 6 credit hours in PHIL

This course is an enquiry into the nature and aims of education. Topics considered will include analyses of the concept of education, evaluation of contrasting views about what constitutes an ideal education, and implications of various theories of knowledge for methods of teaching and learning. Selections from historical and contemporary thinkers will be studied.

3375 Philosophy and Film

3 credit hours

Prerequisite: 6 credit hours in PHIL

This course will deal with philosophical questions concerning, or arising in, film. These include general issues of perspective, evidence, knowledge, and objectivity, as well as more specific questions, such as: What is the nature of representation in film? Can film be construed as a language? What constitutes uniqueness in film? What constitutes excellence? What is the logic of film criticism? These and other questions will be addressed in an effort to clarify the nature of the relation between philosophy and film.

3402 Philosophy of Language

3 credit hours

Prerequisite: 6 credit hours in PHIL

How is it that words and sentences mean what they do? One answer to this question is that linguistic meaning is determined by the speaker's intentions; another is that it is determined by social practices. Each answer raises issues regarding the relation of language to both thought and reality.

3404 Theory of Knowledge

3 credit hours

Prerequisite: 6 credit hours in PHIL

This course examines the various concepts of human knowledge and attempts to find the limits of that knowledge. Traditional approaches to problems in the theory of knowledge will be considered as well as current work.

3405 Ethics of Belief

3 credit hours

Prerequisite: 6 credit hours in PHIL

We commonly evaluate beliefs as rational or irrational; justified or unjustified; responsible or irresponsible. But what do these terms mean and when are they correctly applied? Can beliefs be ethical? These and related questions are debated by contemporary epistemologists.

This course seeks to interpret and assess the main competing views.

3413 Intermediate Logic

3 credit hours

Prerequisite: PHIL 2301

This course continues and develops the work of PHIL 2301. It offers students of all faculties opportunities for further growth in reasoning skills, in part through supervised practice in the logical appraisal of extracts from a variety of important writings. Some branches of logic are developed beyond the level of PHIL 2301. The complete predicate calculus (with identity) is applied to arguments of ordinary English. Inductive logic, and practically significant areas of logical theory, are developed considerably. Scientific method and the general methods of some other disciplines are analyzed in some depth.

3415 Argumentation Theory

3 credit hours

Prerequisite: PHIL 1200

Contemporary argumentation theory draws upon several disciplines: philosophy of language, cognitive psychology, feminist philosophy, and communications theory. This course will examine the concept of argument through the lens provided by argumentation theorists. Alternative conceptions of argument will be critically examined and an overview of the development of argumentation theory will be provided.

3442 Early Modern Philosophy: The Rationalists

3 credit hours

Prerequisite: 6 credit hours in PHIL

A critical examination of the works from this movement, focusing on the areas of metaphysics and epistemology. Descartes, Malebranche, Spinoza, and Leibniz are among the philosophers typically studied.

3443 Early Modern Philosophy: The Empiricists

3 credit hours

Prerequisite: 6 credit hours in PHIL

A critical examination of the works from this movement, focusing on the areas of metaphysics and epistemology. Hobbes, Locke, Berkeley, and Hume are among the philosophers typically studied.

3444 Later Modern Philosophy: Kant

3 credit hours

Prerequisite: 6 credit hours in PHIL

A lecture and seminar course on Kant's theory of knowledge.

3448 Philosophy of Science

3 credit hours

Prerequisite: 6 credit hours in PHIL

An introduction to the main problems of the philosophy of science designed to familiarize students with some of the contemporary analyses of scientific concepts and methods.

3454 Philosophy of History

3 credit hours

Prerequisite: 6 credit hours in PHIL

A critical study of the philosophical views on the course of human history (its pattern, purpose, and value) and an examination of the aim, nature, and validity of historical knowledge.

3455 Existentialism: The 19th Century

3 credit hours

Prerequisite: 6 credit hours in PHIL

A lecture and seminar course examining the 19th century origins of the existentialist movement in contemporary philosophy, with specific investigation of the writings of Kierkegaard and Nietzsche.

3456 Existentialism: The 20th Century

3 credit hours

Prerequisite: 6 credit hours in PHIL

A lecture and seminar course examining the 20th century expression of the existentialist movement in contemporary philosophy, through close study of the writings of Heidegger, Sartre, Camus, and others.

3457 Continental Philosophy

3 credit hours

Prerequisite: 6 credit hours in PHIL

This course is a study of one or more topics or figures in recent or contemporary phenomenology, hermeneutics, or deconstruction. Philosophers discussed in the course may include Husserl, Heidegger, Gadamer, Levinas, Foucault, and Derrida.

3470 Normative Ethical Theories

3 credit hours

Prerequisite: 6 credit hours in PHIL

This course is a critical investigation of normative ethical theories, such as theories about what makes right actions right, good states of affairs good, and virtuous people virtuous. The theories discussed may include: those that evaluate the morality of actions based on their consequences, those that evaluate the morality of actions based on intrinsic features such as whether they respect autonomy, and those that evaluate the morality of actions based on the sorts of people who characteristically perform such actions.

3471 Meta-Ethics

3 credit hours

Prerequisite: 6 credit hours in PHIL

The course investigates the moral concepts that are used in the formulation and evaluation of ethical theories, including: 'morality', 'moral value', 'virtue', 'vice', 'moral right', 'moral obligation', 'justice', and 'good'.

3472 Foundation of Ethics

3 credit hours

Prerequisite: 6 credit hours in PHIL

The course will involve the study of the nature of moral judgments and the logic of moral reasoning.

3474 Moral Responsibility

3 credit hours

Prerequisite: 6 credit hours in PHIL

Students consider questions such as: When are we morally responsible for what we do? When do we share responsibility for a harm that has been brought about by a collective? Should we hold organizations morally responsible for wrongfully causing harm? Can the moral responsibility of organizations always be reduced to the moral responsibility of individual members?

3475 Moral Psychology

3 credit hours

Prerequisites: 6 credit hours in PHIL,

Moral psychology is an interdisciplinary study that draws on empirical research about human psychology and behavior and conceptual work in philosophical ethics.

3850-3875 Directed Study: Reading Courses in Philosophy

6 credit hours

Prerequisite: Six (6) credit hours in PHIL, consent of instructor, and permission of Chairperson.

The subject matter of this course will be determined by the student in consultation with the instructor.

3876-3899 Directed Study: Reading Courses in Philosophy

3 credit hours

Prerequisite: Six (6) credit hours in PHIL, consent of instructor, and permission of Chairperson.

The subject matter of this course will be determined by the student in consultation with the instructor.

4514 Philosophy of Biology

3 credit hours

Prerequisite: 12 credit hours in PHIL including 6 hours at the 2000 level or above

The course explores methodological, conceptual, metaphysical, and epistemological questions that arise in modern biology. Possible topics include scientific revolutions, experimentation, biological laws, theoretical modeling, objectivity, reductionism, species concepts, evolution vs. creationism, human nature, and biological theories of gender, race, and sexuality.

4515 Philosophy of Physics [PHYS 4370]

3 credit hours

Prerequisite: PHYS 2400, PHYS 3500 and PHIL prerequisites as outlined in paragraph 8 in the Philosophy Calendar entry; or permission of the instructors.

This course explores methodological, conceptual, metaphysical, and epistemological questions that arise in modern physics. Possible topics include scientific revolutions, experimentation, laws of nature, space, time,

matter, causality, indeterminism, non-locality, thought experiments, and theoretical unification.

4525 International Justice

3 credit hours

Prerequisite: 12 credit hours in PHIL including 6 hours at the 2000 level or above

This course will consider how major theories of justice such as Kantian constructivism, economic contractarianism, and utilitarianism deal with important issues in international justice such as the law of peoples, distributive justice, human rights, and democratization.

4565 Pragmatism

3 credit hours

Prerequisites: Twelve (12) credit hours in PHIL including six (6) credit hours at the 2000 level or above

Students read the founding texts of pragmatism from the late-19th and early-20th centuries (e.g., by Peirce, James, and Dewey). Students analyze the pragmatist critique of traditional western philosophical ideas about meaning, truth, reality, foundations of knowledge, and practice. Students examine the historical reception of pragmatism and assess its continuing importance.

4566 Analytic Philosophy

3 credit hours

Prerequisite: 12 credit hours in PHIL including 6 hours at the 2000 level or above

A lecture and seminar course that examines the origins, expressions, and significance of the contemporary analytic movement in philosophy.

4585 Feminist Philosophy [WMST 4585]

3 credit hours

Prerequisite: 12 credit hours in PHIL including 6 hours at the 2000 level or above

This course examines the contributions of feminist philosophers to historical and contemporary philosophical thought in diverse areas of inquiry, such as ethics, political theory, metaphysics, epistemology, philosophy of science, and philosophy of mind.

4599 Honours Thesis

6 credit hours

Prerequisite: Honours standing in philosophy

Honours students have the option of completing a thesis on an approved topic. The permission of the Chairperson of the Department and the availability of a thesis supervisor are required.

4826-4849 Special Topics

3 credit hours

Prerequisite: 12 credit hours in PHIL including 6 hours at the 2000 level or above

These courses focus on a topic of research interest to the professor. The topics will vary from year to year.

Physics (PHYS)

Chairperson	I. Short
Observatory Director	D. Lane
Undergraduate Co-ordinator	L. Gallo
Graduate Co-ordinator	R. Thacker
Professors	D. Clarke, L. Gallo, D. Guenther, R. Kanungo, A. Sarty, M. Sawicki, I. Short, R. Thacker
Associate Professors	R. Austin
Assistant Professor	A. Wiacek
Adjunct Professors	F. Ames, P. Bennett, S. Chapman, C. Lovekin
Professors Emeriti	G. Mitchell, D. Turner, G. Welch

Physics courses are offered by the Department of Astronomy and Physics
Department website: <http://www.ap.smu.ca>

Note: This segment lists undergraduate courses and programs in Physics only. Course and program descriptions for Astronomy and Astrophysics may be found in the Astronomy (ASTR) segment of Section 5 in this *Calendar* while graduate course descriptions and graduate programs in Astronomy may be found in the *Graduate Academic Calendar*.

Degree Programs in Physics

The Department offers three different levels of undergraduate study in physics. These include a physics concentration and minor suitable for general science students who want a basic understanding of the fundamentals of physics; a physics major suitable for students who want a solid physics education but who do not necessarily intend to practice physics professionally or go on to graduate school; and a physics honours program for those who require a rigorous training in classical and quantum physics who intend to pursue physics professionally or in postgraduate studies. The major and honours programs are virtually identical through the third year, and students do not need to commit to the honours program until after third year. However, the student must secure a supervisor for the honours thesis (PHYS 4790) before applying to the honours program.

In addition to the physics concentration, major, and honours programs, there are double major physics programs with mathematics, chemistry, and philosophy at both the major and honours levels consistent with the regulations governing double major and double honours programs in Science and in Arts as outlined in Section 3.

Major In Physics - Requirements

The requirements for the degree of Bachelor of Science with Major apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Major, in Section Three. The specific list of forty-five (45) required

credit hours in PHYS used to satisfy 6(d) is contained in the following list of required Science courses for the program:

- PHYS 1210 University Physics I
- PHYS 1211 University Physics II
- PHYS 1500 Introduction to Modern Physics
- PHYS 2300 Vibrations, Waves and Optics
- PHYS 2301 Analytical Mechanics
- PHYS 2400 Electricity and Magnetism
- PHYS 3200 Mathematical Methods in Physics I
- PHYS 3201 Mathematical Methods in Physics II
- PHYS 3210 Computational Methods
- PHYS 3300 Classical Mechanics
- PHYS 3350 Thermal Physics
- PHYS 3400 Electrodynamics
- PHYS 3500 Quantum Mechanics I
- PHYS 3600 Experimental Physics I
- PHYS 4500 Quantum Mechanics II
- MATH 1210 Introductory Calculus I
- MATH 1211 Introductory Calculus II
- MATH 2311 Intermediate Calculus
- MATH 2301 Applied Linear Algebra
- MATH 2303 Differential Equations I
- Nine (9) additional credit hours of Science Electives* (not in the Major subject)

***Note:** Students should consult the online Faculty of Science Program Requirement Tables for course recommendation information, and seek advice from the Undergraduate Coordinator or a Science Advisor in making appropriate selections.

The suggested sequence of courses for years 1 and 2 can be found on the Faculty of Science website listings for Program Requirement Tables. Students should consult with the Undergraduate Coordinator or a Science Advisor to select Science Electives and to chart their course sequencing for years 3 and 4.

Double Major in Physics and Other Science - Requirements

The requirements for the degree of Bachelor of Science with Double Major apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Double Major, in Section Three. The specific list of thirty-six (36) required credit hours in PHYS used to satisfy 7(a) is contained in the following list of required Science courses for the program:

- PHYS 1210 University Physics I
- PHYS 1211 University Physics II
- PHYS 1500 Introduction to Modern Physics
- PHYS 2300 Vibrations, Waves and Optics
- PHYS 2301 Analytical Mechanics
- PHYS 2400 Electricity and Magnetism
- PHYS 3300 Classical Mechanics

- PHYS 3400 Electrodynamics
- PHYS 3500 Quantum Mechanics I
- Three (3) credit hours PHYS at the 3000-level*
- Three (3) credit hours PHYS at the 3000-level*
- PHYS 4500 Quantum Mechanics II
- MATH 1210 Introductory Calculus I
- MATH 1211 Introductory Calculus II
- MATH 2311 Intermediate Calculus
- MATH 2301 Applied Linear Algebra
- MATH 2303 Differential Equations I
- Three (3) credit hour Science Elective* (not in either Major subject)

* **Note:** Choice of 3000-level PHYS courses, and choice of Science Elective course depends on the Other Science Major discipline. Students should seek advice from the Undergraduate Coordinator or a Science Advisor in making appropriate selections, and must seek approval of their charted program from the Departments.

Honours in Physics - Requirements:

The requirements for the degree of Bachelor of Science with Honours apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Honours and Double Honours, in Section Three. Students must secure a supervisor for the Honours thesis (PHYS 4790) before applying to the Honours program. The specific list of sixty (60) required credit hours in PHYS used to satisfy 11(a) is contained in the following list of required Science courses for the program:

- PHYS 1210 University Physics I
- PHYS 1211 University Physics II
- PHYS 1500 Introduction to Modern Physics
- PHYS 2300 Vibrations, Waves and Optics
- PHYS 2301 Analytical Mechanics
- PHYS 2400 Electricity and Magnetism
- PHYS 3200 Mathematical Methods in Physics I
- PHYS 3201 Mathematical Methods in Physics II
- PHYS 3210 Computational Methods
- PHYS 3300 Classical Mechanics
- PHYS 3350 Thermal Physics
- PHYS 3400 Electrodynamics
- PHYS 3500 Quantum Mechanics I
- PHYS 3600 Experimental Physics I
- PHYS 4500 Quantum Mechanics II
- Six (6) credit hours in PHYS from:
 - PHYS 4380 Fluid Dynamics
 - PHYS 4390 General Relativity
 - PHYS 4501 Quantum Mechanics III
 - PHYS 4510 Subatomic Physics
- PHYS 4600 Experimental Physics II
- PHYS 4790 Research Thesis (6 credit hours)
- MATH 1210 Introductory Calculus I
- MATH 1211 Introductory Calculus II
- MATH 2311 Intermediate Calculus
- MATH 2301 Applied Linear Algebra
- MATH 2303 Differential Equations I

- Nine (9) credit hours of Science Electives* (not in Physics)

***Note:** Students should consult the online Faculty of Science Program Requirement Tables for course recommendation information, and seek advice from the Undergraduate Coordinator or a Science Advisor in making appropriate selections

Double Honours in Physics and Other Science - Requirements:

The requirements for the degree of Bachelor of Science with Double Honours apply as listed in this *Academic Calendar* under the heading of Faculty of Science, Bachelor of Science – Honours and Double Honours in Section Three. The specific list of Physics courses which satisfies the minimum forty-eight (48) required credit hours in PHYS (if thesis completed in Physics) or the minimum of forty-two (42) required credit hours in PHYS (if thesis completed in another science) is contained in the following list of required Science courses for the program:

- PHYS 1210 University Physics I
- PHYS 1211 University Physics II
- PHYS 1500 Introduction to Modern Physics
- PHYS 2300 Vibrations, Waves and Optics
- PHYS 2301 Analytical Mechanics
- PHYS 2400 Electricity and Magnetism
- PHYS 3300 Classical Mechanics
- PHYS 3400 Electrodynamics
- PHYS 3500 Quantum Mechanics I
- Three (3) credit hours of PHYS at the 3000-level*
- Three (3) credit hours of PHYS at the 3000-level*
- PHYS 4500 Quantum Mechanics II
- Six (6) credit hours of PHYS from:
 - PHYS 4380 Fluid Dynamics
 - PHYS 4390 General Relativity
 - PHYS 4501 Quantum Mechanics III
 - PHYS 4510 Subatomic Physics
- PHYS 4790 Research Thesis (ONLY if thesis is in PHYS)
- MATH 1210 Introductory Calculus I
- MATH 1211 Introductory Calculus II
- MATH 2311 Intermediate Calculus
- MATH 2301 Applied Linear Algebra
- MATH 2303 Differential Equations I
- Nine (9) credit hours in Science Electives* (not in Physics)

* **Note:** Choice of 3000-level PHYS courses, and choice of Science Elective courses depends on the *Other Science* discipline. Students should seek advice from the Undergraduate Coordinator or a Science Advisor in making appropriate selections, and must seek approval of their charted program from the Departments.

Concentration in Physics – Requirements:

The requirements for the degree of Bachelor of Science General with Concentration in Physics apply as listed in this *Academic Calendar* under the heading of Faculty of Science,

Bachelor of Science – General (with a Concentration) in Section Three. The specific list of minimum thirty (30) required credit hours in PHYS used to satisfy 3(d) is contained in the following list of required Science courses:

- PHYS 1210 University Physics I
- PHYS 1211 University Physics II
- PHYS 1500 Introduction to Modern Physics
- PHYS 2300 Vibrations, Waves and Optics
- PHYS 2301 Analytical Mechanics
- PHYS 2400 Electricity and Magnetism
- Twelve (12) additional credit hours from PHYS at the 3000-level or above
- MATH 1210 Introductory Calculus I
- MATH 1211 Introductory Calculus II
- MATH 2311 Intermediate Calculus
- MATH 2301 Applied Linear Algebra
- MATH 2303 Differential Equations I

Physics Minor - Requirements

The requirements for a Minor in Physics are the same as those listed for Bachelor of Science – Major and Minor in Section three of this Academic Calendar. The specific list of thirty (30) required credit hours in PHYS courses are below:

- PHYS 1210 University Physics I
- PHYS 1211 University Physics II
- PHYS 1500 Introduction to Modern Physics
- PHYS 2300 Vibrations, Waves and Optics
- PHYS 2301 Analytical Mechanics
- PHYS 2400 Electricity and Magnetism
- Twelve (12) credit hours in PHYS at the 3000-level

Courses Descriptions

1190 Fundamental Physics

3 credit hours

Prerequisite: Nova Scotia Grade 11 Physics or equivalent

The intent of this course is to develop fundamental skills, tools, and conceptual understanding in physics, with a focus on topics/skills that are essential for subsequent study of physics. Students study motion and dynamics of objects in one and two dimensions, including discussions of friction, collisions, circular motion and dynamics, conservation of momentum and energy, and relativity

Note: Credit will not be given for PHYS 1190 following credit received for any PSYC course. Students may not take this concurrently with any other PHYS course.

1210 University Physics I [Formerly PHYS 1100]

3 credit hours

Prerequisites: Nova Scotia Grade 12 Physics and Nova Scotia Grade 12 Pre-calculus, or equivalent.

This calculus-based physics course is intended primarily for (astro) physics and chemistry majors and engineers. Topics include kinematics, Newton's laws of motion, conservation of energy and momentum, rotational dynamics, and

Newton's law of gravitation. Emphasis is placed on problem solving skills.

Classes 3 hrs. and lab/tutorial 3 hrs. per week

1211 University Physics II [Formerly PHYS 1101]

3 credit hours

Prerequisites: PHYS 1210 [formerly PHYS 1100]; and either MATH 1210 or MATH 1190

This calculus-based physics course is a continuation of PHYS 1210, and covers the topics of oscillations and waves, thermodynamics, and electricity and magnetism.

Classes 3 hrs. and lab/tutorial 3 hrs. per week

1370 Scientific Method [PHIL 1255]

3 credit hours

Prerequisites: Nova Scotia grade 11 physics or chemistry and Nova Scotia grade 12 math or equivalent; or permission of the instructors.

This course provides a historical and logical analysis of methods commonly used in science, and is normally taught by faculty from both the Department of Astronomy and Physics and the Department of Philosophy. Topics include science vs. pseudo-science, natural vs. social sciences, modes of reasoning, observation and experimentation, construction and empirical testing of theories and models, and thought experiments.

1500 Introduction to Modern Physics

3 credit hours

Prerequisites: PHYS 1210 [formerly PHYS 1100]; and either MATH 1210 or MATH 1190

The special theory of relativity and early ideas in quantum mechanics are introduced. Topics in relativity include departures from Newtonian theory, Lorentz transformations, space and time dilation, the "Twin Paradox", and relativistic dynamics. Topics in quantum mechanics include the quantum theory of light, the Bohr model of the atom, the wave nature of particles and the Schrödinger equation applied to simple one-dimensional problems.

2300 Vibrations, Waves and Optics

3 credit hours

Prerequisites: PHYS 1211 [formerly PHYS 1101]; and MATH 1211.

This course focuses on the production, propagation and manipulation of waves including light. Topics include geometric optics, forced damped oscillators, elasticity and distortion, the wave equation, wave speed and propagation, polarisation, wave packets, interference and diffraction 3-D waves, plane and circular waves and physical optics.

Classes 3 hrs. and lab 3 hrs. per week.

2301 Analytical Mechanics

3 credit hours

Prerequisites: PHYS 2300, MATH 2311, and either MATH 2301 or 2303 .

This course continues on some of the ideas introduced in PHYS 2300, and introduces the student to a broad range of

other areas in classical mechanics. Topics include coupled and 3-D oscillators, non-inertial reference frames, central forces (celestial mechanics), N-body dynamics, rigid bodies, angular momentum and torques, deformation and vibration of beams.

Note: Credit cannot be given to students who already have a credit for PHYS 2305, Newtonian Mechanics.

2400 Electricity and Magnetism

3 credit hours

Prerequisites: PHYS 1211 [formerly PHYS 1101];, MATH 2311 and MATH 2301.

This course is a comprehensive introduction to the self-consistent mathematical theory for electric and magnetic fields which was developed during the latter half of the 19th century. Topics include electric field and potential, Gauss' law, capacitance, elementary circuit analysis, Ampère's law, the Biot-Savart law, magnetisation of matter, Faraday's law of inductance, and Maxwell's equations in integral and differential form.

Classes 3 hrs. and lab 3 hrs. per week.

3200 Mathematical Methods in Physics I

3 credit hours

Prerequisites: PHYS 2301 and MATH 2303.

This course provides the student with the mathematical techniques needed to solve problems in advanced physics courses. Topics in complex analysis include the Cauchy-Riemann conditions, Cauchy Theorem and Integrals, Laurent expansions, and the calculus of residues. Topics in differential equations and the separation of variables, the Method of Frobenius and Sturm-Liouville theory.

Note: Credit for PHYS 3200 cannot be given to students who have completed MATH 4436 and either MATH 2303 or 3405.

3201 Mathematical Methods in Physics II

3 credit hours

Prerequisite: either PHYS 3200 or MATH 3405/4436.

This course is a continuation of PHYS 3200 and covers additional topics in mathematical physics, including special functions (Bessel, Neumann, Lagrange, etc.), Green's functions, Fourier series and transforms, Laplace transforms, integro-differential equations, and Hilbert-Schmidt theory.

3210 Computational Methods in Physics

3 credit hours

Prerequisites: PHYS 3500 and either PHYS 3200 or MATH 3405.

This course introduces the student to methods of solving mathematically difficult or tedious problems using the computer. After a brief introduction to Unix and Fortran or C, the course focuses on some of the algorithms most useful to a physicist, including root-finding, spline fitting, Richardson extrapolation, Romberg integration, Runge-Kutta and Monte Carlo methods. Students complete a term

project which applies learned algorithms to problems in computational (astro) physics.

3300 Classical Mechanics

3 credit hours

Prerequisites: PHYS 1500, 2301, MATH 2311 and either 2303 or 3405

This advanced course in Classical Mechanics introduces the student to the calculus of variations, constrained problems, and generalised Lagrangian and Hamiltonian dynamics. Applications are made to oscillations, the "brachistochrone problem", central force problems, rigid bodies, and the motion of tops. Additional topics include relativistic mechanics, canonical perturbation theory, and chaos.

3350 Thermal Physics

3 credit hours

Prerequisites: PHYS 3500 and either PHYS 3200 or MATH 3405/4436.

This course gives a comprehensive overview of thermodynamics and statistical mechanics. Topics in thermodynamics include equations of state, the three laws of thermodynamics, the Maxwell relations, and the kinetic theory of gases. Topics in statistical mechanics include the idea of particle ensembles and the partition function, classical and quantum statistics, thermodynamics of magnetism, Bose-Einstein and Fermi-Dirac gases, and information theory.

3400 Electrodynamics

3 credit hours

Prerequisites: PHYS 1500, 2400, and either PHYS 3200 or MATH 3405/4436.

This course is a continuation of PHYS 2400 which focused primarily on electro- and magnetostatics, and turns to the more general theory of electrodynamics. Topics include Maxwell's equations in vacuo and matter, the Poynting vector, electromagnetic waves, wave guides, scalar and vector potentials, gauge transformations, Lienardt-Wiechart potentials, radiation from moving charges, and relativistic electrodynamics.

3500 Quantum Mechanics I

3 credit hours

Prerequisites: PHYS 1500, PHYS 2300, MATH 2301, MATH 2311 and either MATH 2303 or 3405.

This course builds on the foundations set in PHYS 1500. Topics in this course include the (time-independent) Schrodinger equation, one-dimensional potentials, barriers and tunnelling, the Heisenberg Uncertainty Principle, Dirac notation, expectation values, the three-dimensional Schrodinger equation, single-electron atoms, spin, and identical particles.

3600 Experimental Physics I

3 credit hours

Prerequisites: PHYS 2300 and 2400

This course provides the student with the necessary skills to be a successful experimental (astro)physicist. Students

assemble labs from advanced experimental equipment including computers and other digital devices, perform the experiment possibly over several weeks, and communicate their results in a scientifically useful fashion.

Note: While this is a three (3) credit course, it will be taught over two semesters.

4370 Philosophy of Physics [PHIL 4515]

3 credit hours

Prerequisite: PHYS 2400, 3500 and PHIL prerequisites as outlined in paragraph 8 in the Philosophy Calendar entry; or permission of the instructors.

This course explores methodological, conceptual, metaphysical, and epistemological questions that arise in modern physics. Possible topics include scientific revolutions, experimentation, laws of nature, space, time, matter, causality, indeterminism, non-locality, thought experiments, and theoretical unification.

4380 Fluid Dynamics

3 credit hours

Prerequisites: PHYS 3300, and either PHYS 3201 or MATH 3406/4437.

This course introduces students to the fundamentals of fluid dynamics. Discussion embraces both compressible and incompressible fluids and includes the continuity equation, the Navier-Stokes equation, Bernoulli's theorem, viscosity, the Reynolds number, vorticity, and numerous applications to "real world" problems. Some specialized numerical techniques for solving complex problems in fluid dynamics may also be discussed.

4390 General Relativity

3 credit hours

Prerequisites: PHYS 3300, and either PHYS 3201 or MATH 3406/4437.

This is an advanced course introducing Einstein's theory of general relativity and the curvature of space-time. Topics shall include manifolds, Riemannian geometry, Einstein's equations, and applications to cosmology and black holes.

4500 Quantum Mechanics II

3 credit hours

Prerequisites: PHYS 3300, 3500, and either PHYS 3201 or MATH 3406/4437.

This course is a continuation of PHYS 3500, and covers topics such as time-independent perturbation theory, the variational principle, the Wentzel-Kramers-Brillouin (WKB) approximation, time-dependent perturbation theory, the adiabatic approximation, and scattering.

4501 Quantum Mechanics III

3 credit hours

Prerequisite: PHYS 4500.

This advanced course in Quantum Mechanics covers a selection of topics that may include scattering, lasers, relativistic quantum dynamics (Dirac theory), second quantization, and field theory.

4510 Subatomic Physics

3 credit hours

Prerequisite: PHYS 3500.

Students are introduced to modern nuclear and particle physics. Topics may include the nucleon-nucleon interaction, the deuteron, the nuclear shell model, dynamical probes of nuclei (electron, photon, and hadron scattering), the structure of nucleons and mesons, electroweak interactions

4600 Experimental Physics II

3 credit hours

Prerequisite: PHYS 3600

This course is designed primarily for honours physics students to study advanced topics in physics and/or astrophysics in the laboratory. Students are responsible for setting up and performing the experiments, writing computer programs to aid the analysis, and preparing and presenting their results in a professional manner. The majority of work will be project-based, each project conceived and built by the students from equipment available in the lab.

Note: While this is a three (3) credit hour course, it will be taught over two semesters.

4790 Research Thesis

6 credit hours

Prerequisite: honours standing.

A research project carried out by the student under the supervision of a faculty member in the Department throughout the Honours year. The project should be in the area of astrophysics for students in the honours astrophysics program. Results are written up in a formal thesis that adheres to standard University-set guidelines.

Directed study 3 hrs. per week; 2 semesters.

4826 – 4849 Special Topics in Physics

3 credit hours

Prerequisite: permission of instructor

4876 – 4899 Directed Study in Physics

3 credit hours

Prerequisite: permission of instructor

Political Science (POLI)

Chairperson	M. Doucet
Professors	A. Dobrowolsky, E. Keeble, R. Landes
Associate Professors	M. Doucet, K. Ervine, G. Fridell, S. Gaon, D. Naulls
Assistant Professors	L. Zhyznomirska

The Political Science Department offers students with diverse interests a wide range of topical, thought-provoking courses in four fields of study: *Canadian Politics*, *Comparative Politics*, *International Relations*, and *Political Thought*. The Department's aim is to provide students with a rich and rewarding learning experience, one that sharpens their critical skills, engages them in political ideas and practices, and grounds them in the world, locally and globally. The program thereby provides students with a solid foundation on which to build their future careers. For all these reasons, students are strongly encouraged to Major in Political Science and, for those interested in pursuing more advanced study, to apply to the Political Science Department's Honours program.

Departmental Policy for Majors

To earn a Major in Political Science, students must complete a minimum of forty-two (42) credit hours in Political Science courses. These must include:

- Three (3) credit hours at the 1000-level in Political Science
- POLI 2304 Canadian Politics in the 21st Century
- POLI 2335 History of Political Thought
- POLI 2383 International Relations I: Actors, Structures, Processes
- POLI 2381 Comparative Politics I: Political Regimes and Government Institutions, and
- Twenty-one (21) credit hours at the 2000 level or above.

Students are required to have completed at least 60 credit hours in university before taking a 4000-level course in Political Science.

To declare a Major in Political Science, students are required to have a minimum overall GPA of C (2.0 out of 4.3) in their Political Science Courses. Upon declaring a Major, students are also required to meet with the Department Chair, to review program requirements and course selection options.

In order to continue in and to graduate with a Major in Political Science, students must achieve and maintain a minimum grade point average (GPA) of 2.0 out of 4.3 in Political Science courses and a minimum degree grade point average (DGPA) of 2.00.

Departmental Policy for Honours

The objective of the Bachelor of Arts Honours program in Political Science is to attract and graduate students with a demonstrated capacity to conduct original research independently. Students interested in pursuing postgraduate degrees are particularly encouraged to apply.

Admission Requirements

Students should apply for admission to the Honours program during their third year to study or after having completed a minimum of sixty (60) credit hours. Forms are available from the Registrar's/Records Office. As part of the admissions process, students are required to meet with the Department Chair. The Department will assign an Honours supervisor and will approve the major area of concentration.

In order to be considered for admission to the Political Science Honours program, a student must normally have a cumulative grade point average of at least 3.33 in both Political Science and non-Political Science courses.

Students are reminded that the requirements mentioned above constitute a minimum and that admission is subject to the approval of the Department.

Requirements for Continuance in and for Graduation with Honours in Political Science

In order to continue in and to graduate with Honours standing, students must meet the Faculty of Arts requirements for the Honours Bachelor of Arts degree. Honours students must also achieve and maintain a grade point average (GPA) of 3.33 out of 4.3 in Political Science courses and a minimum degree point average (DGPA) of 3.33.

Honours students must complete a minimum of sixty (60) credit hours in Political Science Courses. These must include:

- Three (3) credit hours at the 1000-level in Political Science
- POLI 2304 Canadian Politics in the 21st Century
- POLI 2335 History of Political Thought
- POLI 2383 International Relations I: Actors, Structures, Processes
- POLI 2381 Comparative Politics I: Political Regimes and Government Institutions, and
- POLI 4500 Honours Thesis
- POLI 4510 Honours Seminar
- POLI 4520 Honours Colloquium, and
- Twenty-seven (27) credit hours in Political Science at the 2000 level or above.

The Department may consider as equivalent either two three (3) credit hour seminar courses, or a six (6) credit hour seminar in a cognate discipline, or upgraded senior-level courses in the Department, in lieu of the Honours seminar and/or colloquium requirements.

Honours students must submit an Honours Thesis (10,000 words) in their major area of concentration by March 15 of their final Honours year. The Honours supervisor and Department must approve the Honours essay before a degree is recommended.

Honours students are encouraged to register for thirty (30) credit hours in the final Honours year.

Departmental Policy for Minors

To earn a Minor in Political Science students must complete at least twenty-four (24) credit hours in Political Science courses, including at least three (3) credit hours at the 1000-level in Political Science and twenty-one (21) credit hours at the 2000-level or higher.

In order to continue in and to graduate with a Minor in Political Science, students must achieve and maintain a minimum grade point average (GPA) of 2.00 out of 4.3 in Political Science courses and a minimum degree grade point average (DGPA) of 2.0.

Departmental Policy for Concentration

Students who intend to obtain a concentration in Political Science in partial fulfillment of the B.A. General degree (i.e., one with Double Arts Concentrations and a minimum of ninety (90) credit hours), must complete three (3) credit hours at the 1000-level and twenty-one (21) credit hours at the 2000-level and above. The student must also obtain a minimum degree grade point average (DGPA) of 2.00.

Students are urged to be extremely careful not to register again for a course for which they have already earned credit. Academic Regulation 17(b) is directly relevant to this matter.

Course Descriptions

1201 Politics: Contemporary Issues

3 credit hours

This course explores the multi-faceted nature of contemporary politics, and, in so doing, introduces students to various aspects of the Political Science discipline. The aim of the course is to convey how ideas, frameworks, institutions and actors relate to current political debates and ongoing democratic challenges, both locally and globally. Through a critical examination of significant political theories and practices students will develop a broad and general understanding of the nature, scope and range of political action in the contemporary world.

1210 Political Ideas: “Isms” and Beliefs

3 credit hours

An introduction to political ideologies (including liberalism, conservatism, socialism, fascism, feminism, anti-racism and green ideology) and their role in shaping modern political life. Particular attention is given to the meaning of “ideology” in general and its place in contemporary politics, as well as to the emergence of new ideologies and their relationship to social, economic and cultural forces.

1220 Political Analysis

3 credit hours

An introduction to the theoretical approaches and techniques used in analyzing political events and claims. Emphasis is placed on critical and institutional perspectives, as well as on debates over various approaches to political analysis and to the question of the interpretation of political issues and conflicts.

1230 Law and Politics

3 credit hours

An examination of the practical and theoretical connections between law and politics. The course will concentrate on contemporary public law issues and constitutional reform in liberal-democracies.

1240 Politics and Business

3 credit hours

An introduction to the relationship between politics and business. This course is based on developing an understanding of the dynamics of business-government relations, with special emphasis on Canada from a comparative perspective. Special attention is given to business organization and lobbying, government regulation, and selected public policy issues and agencies.

1250 Politics and Globalization

3 credit hours

This course will introduce students to the political, economic, social and cultural processes which commonly fall under the term *globalization*. The objective is to introduce students to some of the central global forces that are shaping our contemporary political world.

1260 Politics and Development: People, Ideas and Goods

3 credit hours

Students examine the politics of the relationship between the Global North and Global South. Students study various aspects of Political Science and International Development by exploring the themes of global flows – that of ideas, peoples, and goods.

2304 Canadian Politics in the 21st Century

6 credit hours

Prerequisite: Three (3) credit hours in POLI

This course introduces students to the institutions, ideas and identities which structure and shape Canadian governance in the 21st century. Political features and forces are outlined, grounded historically and considered in light of current developments. Shifting political as well as economic, social and cultural climates are examined. Throughout, fundamental representational and democratic challenges are evaluated.

2307 Provincial Government and Politics

3 credit hours

Prerequisite: Three (3) credit hours in POLI

An analysis of the dynamics and structure of selected provincial government in Canada. Provincial political parties, voting behaviour, legislatures, bureaucracies and policy formulation constitute the core of this course. Inter-provincial and federal-provincial relations are examined.

2335 History of Political Thought

6 credit hours

Prerequisite: Three (3) credit hours in POLI

A survey of significant developments in Western political thought from the classical period of Athens to the 20th century through a focus on major Western political theorists. Key thinkers may include Socrates, Plato, Aristotle,

Augustine, Machiavelli, Hobbes, Locke, Rousseau, Kant, Wollstonecraft, Marx, Goldman and Nietzsche.

2381 Comparative Politics I: Political Regimes and Government Institutions

3 credit hours

Prerequisite: Three (3) credit hours at the 1000 level in POLI

Students are introduced to the field of Comparative Politics with an emphasis on the core concepts, government institutions, and political regimes around the world. The nature of political authority, democratization processes, and social and economic transformations are explored in the context of domestic politics in a number of different countries.

2382 Comparative Politics II: Ideas, Cultures, Interests

3 credit hours

Prerequisite: POLI 2381

Students examine the field of Comparative Politics with an emphasis on the role of ideas and interests in modern politics. Topics include revolutions, nationalism and related political identities, linkages between gender, ethnicity, race, and politics, and the role of religion and ideology.

2383 International Relations I: Actors, Structures, Processes

3 credit hours

Prerequisite: Three (3) credit hours at the 1000 level in POLI

Students are introduced to the field of International Relations with an emphasis on the main political actors, the dominant international structures, and central global processes of international and world politics.

2384 International Relations II: Ideas, Identities, Borders

3 credit hours

Prerequisites: POLI 2383

Students explore the field of International Relations with emphasis on how ideas, identities, and borders shape our understanding of international and world politics.

3205 Politics and Sex

3 credit hours

Prerequisite: Three (3) credit hours in POLI

The study of politics is about the study of power. The overall objective of this course is to show how power infuses gender in ways that focus on sexuality. Students explore the connections between politics, gender and sexuality by looking at such topics as rape, sexual violence, pornography, prostitution and trafficking.

3245 Public Policy I

3 credit hours

Prerequisite: Three (3) credit hours in POLI

Students examines the theories of public policy analysis by addressing key concepts, problem definition, policy instruments and design, and policy implementation within the context of modern governance.

3246 Public Policy II

3 credit hours

Prerequisite: POLI 3245

This course is a critical analysis of selected public policies, associated policy communities and networks, and their impacts upon society. A case study approach is used to examine selected public policies, apply theories and models of public policy analysis, and contextualize them in terms of political, economic and social forces.

3303 Democracy and Cosmopolitanism

3 credit hours

Prerequisite: Three (3) credit hours in POLI

Students examine such fundamental concepts in democratic theory as 'rights', 'equality', 'liberty', 'reciprocity', 'deliberation', and 'cosmopolitanism' from the modern era to the present. Special emphasis is placed on the shift of both theoretical and practical focus: from questions of the equality of citizens in a nation-state to those of human diversity and difference in a cosmopolitan, global arena.

Note: Students that have taken POLI 3302 may not receive credit for POLI 3303.

3310 Government and the Media

3 credit hours

Prerequisite: Three (3) credit hours in POLI

An examination of the influence of the media, and the impact of government policy, especially as set out in federal and provincial legislation, on the growth and operation of the mass media in Canada. Particular attention will be given to the continuing debate over television and radio regulation and ownership, restraints on film and the press, and issues raised by new technology.

3312 American Government

3 credit hours

Prerequisite: Three (3) credit hours in POLI

An analysis of the American political system, its political culture, social base, constitutional order, governmental structure and policymaking processes. Special emphasis is placed on the party system, voting behaviour, and the Presidency.

3314 Politics of the Developing Areas

3 credit hours

Prerequisite: Three (3) credit hours in POLI

An examination of political development in selected states in Asia, Africa, Latin America, or the Middle East.

3315 Canadian Foreign Policy

3 credit hours

Prerequisite: Three (3) credit hours in POLI

This course is an introduction to the study of Canadian foreign policy. Straddling the subfields of Canadian politics and international relations, this course provides students with tools to analyze Canada's role in the global and globalizing context.

3316 Politics in the European Union

3 credit hours

Prerequisite: Three (3) credit hours in POLI

Students review the origins and development of the European Union (EU) with a focus on its institutions, policy-making processes and the challenges inherent in the creation and functioning of a supranational political regime. Students examine theories of integration as they pertain to the EU.

3318 Politics of the Middle East

3 credit hours

Prerequisite: Three (3) credit hours in POLI

The politics of the Middle East Region are addressed, including a survey of the regional states and non-state actors, the international dynamics of politics within and among the Arab states, Turkey, Israel, and Iran, as well as the impact of Western interactions with the region.

3321 International Organizations

3 credit hours

Prerequisite: Three (3) credit hours in POLI

Students examine the tensions between emerging forms of global governance and existing structures of inter-governmentalism. Students explore international organizations such as the United Nations (UN) and topics such as international peacekeeping, humanitarian law, international trade, and civil society.

3322 Global Political Economy

3 credit hours

Prerequisite: Three (3) credit hours in POLI

This course explores the theory and practice underlying the political forces structuring the global economy. Particular attention will be paid to interactions between the global economy and international organizations such as the World Trade Organization (WTO), the World Bank, and the International Monetary Fund (IMF).

3330 Public Administration

6 credit hours

Prerequisite: Three (3) credit hours in POLI

A study of the structure and operation of the administrative branch of government, both in theory and practice. Included will be an examination of the evolution of the Canadian federal public administration and public service, with some attention for comparative purposes to related experiences in other nations. The administrative responsibilities and powers of the modern state will be assessed and a sampling of recent organizational theories will be undertaken.

3350 Indigenous Politics: Past, Present and Future

3 credit hours

Prerequisite: Three (3) credit hours at the 1000 level in POLI

Students examine Indigenous politics with a focus on political legacies, contemporary challenges, and future political opportunities and constraints. Students explore

Indigenous politics vis-à-vis legislatures, courts, and international bodies through broader notions of governance and justice, movement mobilization and protest. The focus is on Canada, but may include comparative political dimensions.

3418 International Law

3 credit hours

Prerequisite: Three (3) credit hours in POLI

A study of the features of public international law as they have developed and have been invoked in diplomatic practice, international law adjudication, and national courts.

3419 Comparative Constitutional Law

3 credit hours

Prerequisite: Three (3) credit hours in POLI

A comparative analysis of constitutional systems, this course focuses upon the theory and exercise of judicial review, in the context of Canadian, American, European, or other constitutions. It combines lectures, readings, and the case method.

3425 Spying and International Politics

6 credit hours

Prerequisite: Three (3) credit hours in POLI

An analysis of the development, role, techniques, and impact of spying on the conduct of international relations.

3440 Canadian-American Relations

3 credit hours

Prerequisite: Three (3) credit hours in POLI

This course focuses on Canadian-American relations since 1945. The course examines different theoretical approaches to the relationship, as well as a variety of case studies to analyze the nature and extent of Canada-U.S. relations both in the bilateral context and in the multilateral context.

3447 Canadian Political Parties

3 credit hours

Prerequisite: Three (3) credit hours in POLI

The purpose of this course is to identify and explain continuity or change in Canadian party politics. Particular emphasis will be placed on the ability of political parties to adapt to new challenges posed by Canada's rapidly transforming economic, social and political context.

3450 Women and Canadian Politics

3 credit hours

Prerequisite: Three (3) credit hours in POLI

Students explore various dimensions of women's participation in Canadian politics, which is broadly conceived and includes women's activism outside traditional political institutions. Studies of the political participation of women in other countries may also be examined as points of comparison.

3454 Issues in Canadian Defence

3 credit hours

Prerequisite: Three (3) credit hours in POLI

This course examines Canadian defence policy and arms procurement strategies. Particular emphasis will be placed on political, economic, and technological challenges to contemporary Canadian defence policy-making.

3456 Issues in International Security

3 credit hours

Prerequisite: Three (3) credit hours in POLI

This course examines issues such as international conflict, transnational crime, environmental change and terrorism, taking such perspectives as national security, common security, cooperative security and human security.

3457 Politics and Government in Ireland [IRST 3457]

3 credit hours

Prerequisite: Three (3) credit hours in POLI

A survey of Irish history will lead to more detailed consideration of British administration in Ireland, and of government in the Republic of Ireland and in Northern Ireland.

3462 Political Ideas of the Enlightenment

3 credit hours

Prerequisite: Three (3) credit hours in POLI.

A critical examination of the political ideas and theories that grew out of the modern European Enlightenment. Special attention is paid to Immanuel Kant's understanding of the nature, role and effects of "public reason" and to his assessment of the conditions necessary for international cooperation and peace. Other thinkers to be discussed may include John Locke, the Baron of Montesquieu, David Hume, G.W.F. Hegel, Harriet Taylor and John Stuart Mill.

3463 Counter-Enlightenment Thought

3 credit hours

Prerequisite: Three (3) credit hours in POLI

A survey and critical investigation of modern responses to liberal Enlightenment thought, from the analyses first undertaken by Jean-Jacques Rousseau and Edmund Burke, through to the crucial contributions to this tradition made by Friedrich Nietzsche, Karl Marx, and the critical theorists who followed in their wake. Special attention is paid to the critique of individualism and to alternative ideals of community and civil society.

3470 Empirical Democratic Theory

6 credit hours

Prerequisite: Six (6) credit hours in POLI

An examination of the findings and impact of modern behavioral research and their impact on the theory and practice of democratic government. Particular attention will be given to the interplay between classical democratic theory and current political science research.

3501 Research Methods

3 credit hours

Prerequisite: Three (3) credit hours in POLI

This course is an examination of contemporary methodologies in political science. Included is a discussion of theories and approaches developed by the empirical school of political scientists. Emphasis is placed on the selection of methods as related to theory and research questions.

3546 Political Parties and Democratic Change

3 credit hours

Prerequisite: Three (3) credit hours in POLI

The historical evolution, as well as the contemporary promises and pitfalls of political parties are critically examined. The party ideal is appraised in relation to changing political and representational realities. Given growing public dissatisfaction with political parties as democratic vehicles, representational alternatives are examined. The focus is on Canada, but party politics and democratic change in other countries will provide comparative insights.

NOTE: Courses at the 4000-level are reserved for upper-level students who have successfully completed at least two years of full-time study in university (60 credit hours).

4150 Comparative Immigration Politics

3 credit hours

Prerequisite: Three (3) credit hours in POLI at the 1000 level in addition to the Department's Policy for 4000-level courses.

Students gain an advanced level of understanding of the dynamics driving the politics of immigration in liberal-democratic states, focusing primarily on Canada, the United States, Western Europe, and Australia. Students examine the factors that impact immigration policy-making (e.g., history and culture of immigration, public opinion and the media, and key political actors) and the politics of immigrant integration in each national context. The normative challenges that international migration poses for liberal democracies are debated.

4311 Nations & Nationalism: Identities, Orders, Borders

3 credit hours

Prerequisite: Three (3) credit hours in POLI

This course provides a survey of the theories of and approaches to the study of nationalist thought and practice. Phenomena of nations, nation-states, and nationalist ideologies and nationalist movements are explored.

4317 Charter Politics and Constitutional Change

3 credit hours

Prerequisite: Three (3) credit hours in POLI

A comparative examination of selected sources and authorities respecting fundamental law in democratic countries. The course will provide students of constitutional law with a theoretical basis for the analysis of constitutions and relevant judicial decisions.

4402 Model United Nations

3 credit hours

Prerequisite: POLI 3321 (or equivalent) and instructor approval.

The objective of this course is to foster a greater understanding of the United Nations (UN). The course will revolve around the possible participation in a university-level Model UN simulation. Students will be given an opportunity to gain in-depth knowledge of the UN's organizational structure, activities and rules of procedure by engaging in experiential learning in and outside the classroom.

4449 Public Policy Challenges: Gender, Race and Class [WMST 4449]

3 credit hours

Prerequisite: Three (3) credit hours in POLI

This course examines a number of contemporary public policy debates and dilemmas in light of gender, race and class dynamics. The aim is to gain a better appreciation of the complexity of approaches to, and experiences of, various policy areas. The course begins by unpacking the nature and effects of the state and state policies and then moves to explore a range of economic, social, political and legal policy concerns.

4451 Gender and International Relations [WMST 4451]

3 credit hours

Prerequisite: Three (3) credit hours in POLI

Students course explores theoretical and empirical issues raised by a "gender-based analysis" of international relations.

4465 Modern Theories of the State

3 credit hours

Prerequisite: Three (3) credit hours in POLI

An investigation of modern thought concerning the roles, scope, and limits of the state in society. This course emphasizes the historical roots of state theory through the study of such essential theorists as Jean Bodin, Thomas Hobbes, GWF Hegel, Mikhail Bakunin, Karl Marx and Friedrich Engels.

4466 Contemporary Theories of the State

3 credit hours

Prerequisite: Three (3) credit hours in POLI

A survey of contemporary theories concerning the nature of the state in the present global, 'transnational' moment. The diversity of the theoretical field will be emphasized through an examination of liberal, Marxist, structuralist, feminist and continental approaches to state theory.

4470 Marx: The Early Writings

3 credit hours

Prerequisite: Three (3) credit hours in POLI

Students in this advanced political theory seminar will examine Karl Marx's early political and philosophical writings to explore how he reinterprets and transforms the

liberal democratic values of rights, freedom and equality. The focus on primary and selected secondary texts is intended to provide students with an introduction to Marx's political-philosophical thought.

4471 Marx: The Later Writings

3 credit hours

Prerequisite: Three (3) credit hours in POLI

Students in this upper-level political theory seminar will examine the later writings of Karl Marx, including his advanced political economic theories. Close readings of primary texts, along with an introduction to 20th century developments in Marx scholarship clarify how Marx's political, philosophical and economic theory fundamentally challenges the liberal democratic tradition.

4480: Human Rights, Modern Perplexities

3 credit hours

Prerequisite: Three (3) credit hours in POLI at the 1000 level in addition to the Department's Policy for 4000-level courses.

Students gain an understanding of the historical and philosophical context in which human rights emerged as a modern political concept. Students consider the evolution of human rights from early modern natural law theory, through the French Revolution of 1789, to the aftermath of 20th century totalitarianism, focusing in particular on the intersections between nature, politics, philosophy and the law.

4481 Human Rights, Contemporary Paradoxes

3 credit hours

Prerequisites: Three (3) credit hours in POLI at the 1000 level in addition to the Department's Policy for 4000-level courses.

Students develop an appreciation of the conceptual difficulties related to international human rights in the contemporary context. Recent debates in critical political and legal theory, particularly regarding the issue of international interventions and humanitarian aid are examined-

4493 Global Social Movements

3 credit hours

Prerequisite: Three (3) credit hours in POLI

This course examines global social movements as new political forces within world politics. It will explore the main theoretical perspectives in the field of international relations that have addressed the political significance of global social movements. The course will also examine the forms of interaction between the constituents of global social movements (e.g. non-governmental organizations) and the institutions of global governance.

4494 UK Politics in Transition

3 credit hours

Prerequisite: Three (3) credit hours in POLI

This course explores current political debates in the United Kingdom (England, Scotland, Wales, and Northern Ireland). It evaluates the contemporary status of longstanding political structures, processes and discourses in the UK. It questions whether traditional state forms, institutions, ideas, and identities are being challenged and changed.

4500 Honours Thesis

6 credit hours

Prerequisite: open to honours students in political science.

Through regular meetings with their Honours Supervisor, students will use this course to prepare an honours essay in their major area of study.

4510 Honours Seminar

3 credit hours

Prerequisite: open to honours students in political science.

The Honours Seminar will examine selected aspects of one of the fields of the discipline: Canadian Politics, Comparative Politics, International Relations and Political Thought.

4520 Honours Colloquium

3 credit hours

Prerequisite: open to honours students in political science.

The Honours Colloquium will expose honours students to specialized dimensions of the discipline of Political Science, and offer opportunities to develop advanced research and writing skills.

4826 – 4849 Selected Topics in Political Science

3 credit hours

Prerequisite: Three (3) credit hours in POLI

The subject matter of particular half-credit courses will be announced from time to time by the Department. These courses will analyze specialized areas of political science not normally covered in our regular Departmental offerings.

4850 – 4875 Directed Reading in Political Science

6 credit hours

Prerequisite: permission of Department.

These courses, with the department's approval, are organized by an individual faculty member in agreement with the department as a whole, and are designed to supplement or provide an alternative to regular courses in political science, according to the special needs and interests of individual students and faculty members.

4876 – 4899 Directed Reading in Political Science

3 credit hours

Prerequisite: permission of Department.

These courses, with the department's approval, are organized by an individual faculty member in agreement with the department as a whole, and are designed to supplement or provide an alternative to regular courses in political science, according to the special needs and interests of individual students and faculty members.

Psychology (PSYC)

Chairperson	M. Patry
Graduate Coordinator	L. Francis
Undergraduate Coordinator	D. Bourgeois
Professors	J. Cameron, V. Catano, A. Day, M. Fisher, M. Fleming, L. Francis, D. Gilin Oore, K. Kelloway, R. Konopasky, M. Patry, S. Smith, V. Stinson
Associate Professors	D. Bourgeois, L. Closson, N. Conrad, C. Holmvall, J. Ivanoff, L. Kocum
Assistant Professors	N. Roulin, S. Stevens, M. Ternes
Lecturer	S. Carroll
Adjunct Professors	M.S. Aftenas, W. Darr, D. Fisher, J. Hurrell, D. Lee-Baggeley, M. Norris
Professors Emeriti	J. Chadwick-Jones
Canada Research Chair	K. Kelloway

The Psychology Department offers a broad range of courses and programs designed to meet the needs of students from a variety of backgrounds and with varying degrees of interest in psychology. The Department offers an area of Concentration for the General Bachelor of Science and Bachelor of Arts degrees, and a Major and Honours for both the Bachelor of Arts and Bachelor of Science degrees. The Department offers graduate programs of study leading to the Master of Science degree in

“Applied Psychology and Doctor of Philosophy in Industrial/Organizational Psychology.

The Undergraduate Program in Psychology

The psychology undergraduate curriculum consists mainly of semester courses worth three (3) credit hours which are grouped into three broad categories—Group A, Group B, and Group C. Courses in Group A are representative of psychology as a natural science and offer instruction in the areas of (1) brain and behaviour, (2) biology, evolution, and behaviour, and (3) cognition. Courses in Group B are representative of psychology as a social science and provide instruction in the areas of (1) development, (2) social behaviour, and (3) personality and psychopathology. Courses in Group C are representative of psychology in general and include PSYC 1200, and statistics and research methods courses, among others.

Psychology at the 1000 Level

Students who wish to major in psychology should begin by selecting foundation courses from PSYC 1200, PSYC 1210, 1220, 1230, 1235, 1240, 1250, and 1260. Although recommended for majors, these 1000-level courses are open to other students and count towards Faculty of Arts' regulation 3d. Students may take as many of these courses as they wish; however, they should be guided in their selection by the stated prerequisites for 2000- and 3000-level courses. Additionally, students in the Faculty of Arts should be mindful of the need to complete at least forty-eight (48) credit hours at the 2000 level or higher.

PSYC 1200 is NOT a prerequisite for other 1000-level psychology courses, but it is required for a Major in Psychology for both the B.A. and the B.Sc. programs.

Psychology as an Elective Subject

Students who wish to take psychology as an elective should begin with PSYC 1200, Introduction to Psychology, which is a broad survey of the discipline. Completion of PSYC 1200 will permit enrolment in selected psychology courses at the 2000 and 3000-level. Psychology courses at the 4000-level are normally available only to those planning an area of concentration or a major in the discipline. Students who meet the prerequisites of a 4000-level course or who obtain permission of the instructor, however, may register for the course. Arts students seeking to fulfil degree requirement 3d or who wish to minor in psychology, Science students seeking to fulfil degree requirement 3e, 6e, or 7b, or who wish to minor in psychology; and Commerce students seeking to fulfil degree requirement 5c should contact the Psychology Advisor for guidance in selecting courses relevant to their needs.

Minor in Psychology – Requirements:

Students from any of the three Faculties who wish to minor in Psychology must complete the following requirements:

- PSYC 1200 Introduction to Psychology;
- A minimum of six (6) credit hours in Group A PSYC courses;
- A minimum of six (6) credit hours in Group B PSYC courses;
- A minimum of twelve (12) credit hours in PSYC at the 3000 level or higher;
- Sufficient credit hours in PSYC to meet the minimum required by the students' own Faculty regulations for a Minor. For students in the Bachelor of Arts and Commerce degree programs, this minimum number of credit hours is twenty-four (24); in the Bachelor of Science degree program, this minimum number of credit hours is thirty (30).

Concentration in Psychology – B.Sc. Requirements:

Students Pursuing a Bachelor of Science - General degree may elect an area of concentration in Psychology. The specific requirements are listed under Bachelor of Science – General (with a Concentration) in this *Academic Calendar*, Section Three. To satisfy 3 (d), the following is required::

- A minimum of six (6) credit hours in PSYC Group A courses;
- A minimum of six (6) credit hours in PSYC Group B courses;
- PSYC 1200 Introduction to Psychology;
- PSYC 2340 Research Methods in Psychology;
- PSYC 2350 Psychological Statistics;
- A minimum of three (3) credit hours in PSYC at the 4000-level;
- Sufficient credit hours in PSYC to total a minimum of thirty (30) but no more than forty-two (42) credit hours in PSYC.

For students seeking a concentration in psychology, PSYC 2350 is a prerequisite for all 4000-level psychology courses. BIOL 3308 Biostatistics is an acceptable

equivalent prerequisite for all 4000-level courses. Students who have taken another statistics class may check with the Psychology Advisor to determine its equivalency. Students seeking a concentration in psychology are required to complete PSYC 2340 and; PSYC 2350 or BIOL 3308.

Concentration in Psychology – B.A. Requirements:

Students pursuing a General Bachelor of Arts degree may elect an area of concentration in psychology. In addition to meeting the requirements for a Minor program specified above, students must complete PSYC 1200, PSYC 2340, PSYC 2350, and at least three (3) credit hours in PSYC at the 4000-level. In addition, the Faculty of Arts requires students pursuing a B.A. degree with Double Arts Concentration to complete a minimum of ninety (90) credit hours with at least twenty-four (24) credit hours in Psychology; students must maintain a minimum cumulative grade point average (CGPA) of 2.00. Further details are available from the Psychology Advisor.

Psychology Major – Requirements:

Psychology is both a natural and a social science. Thus, students may major in Psychology and obtain a Bachelor of Science or a Bachelor of Arts degree. The major subject area course requirements for a Psychology Major are the same for both faculties: The required minimum forty-five (45) credit hours in PSYC must include the following:

- PSYC 1200 Introduction to Psychology
- PSYC 2340 Research Methods in Psychology
- PSYC 2350 Psychological Statistics
- A minimum of twelve (12) credit hours in PSYC Group A courses;
- A minimum of twelve (12) credit hours in PSYC Group B courses;
- A minimum of eighteen (18) credit hours in PSYC at the 4000-level.

For students majoring in Psychology, PSYC 2350 is a prerequisite for all 4000-level psychology courses. Students who have taken another statistics class may check with the Departmental Chairperson to determine its equivalency. B.A. students who are taking Psychology as a major must maintain a minimum GPA of 2.00 (an average grade of C) in the courses used to meet the minimum credit hour requirements for the major. (Arts Regulation 7); B.SC. students must achieve a minimum GPA of 2.20 in the major subject courses used to satisfy 6(d) (Science Regulation 6(h)).

Students seeking a double major in Psychology and another subject must meet the requirements for a major in psychology as stated above. Students who are completing a double major in Psychology and Sociology/Criminology may substitute SOCI3102 / CRIM 3102 Quantitative Research Methods, but no other Sociology research methods courses, in place of PSYC 2340. Students who are completing a double major in Psychology and Biology may substitute BIOL 3308 in place of PSYC 2350.

Students who intend to declare a major in Psychology are advised to consult the Psychology Advisor as to whether the Bachelor of Science or the Bachelor of Arts is better suited to their career goals.

Psychology Honours – Requirements:

The Psychology Department offers honours study leading to a Bachelor of Arts (Honours) degree, a Bachelor of Science (Honours) degree, and a Certificate of Honours Standing (Honours Equivalency) academic regulation 26.

The honours program is intended for students of above average ability who wish to proceed to graduate work in psychology or related fields or who intend to pursue careers in psychology.

For admission to Honours in Psychology, program students at the time of application must have:

- a minimum CGPA of 3.00;
- completed at least eighteen (18) credit hours in PSYC courses, including PSYC 1200;
- a minimum GPA of 3.30 in PSYC courses;
- a minimum grade of B in each of PSYC 2340 and PSYC 2350.

These requirements are minimum standards only. Because the Department has limited resources for offering the honours program, students who meet the minimum standards are not guaranteed admission.

Admission decisions are normally made in spring. Refer to the Department website for standard application deadlines. Applications from students who do not meet the minimum standards as outlined above at the time of application will not be processed.

The requirements for Honours in Psychology follow the general regulations for the Faculties of Arts and Science as stated in the *Calendar*. The course requirements are as follows: a minimum of sixty (60) credit hours in PSYC courses, including

- at least twelve (12) credit hours from PSYC courses in Group A and
- twelve (12) credit hours from PSYC courses in Group B.
- Of the minimum sixty (60) credit hours, at least thirty-six (36) must be at the 4000 level or above, including
 - PSYC 4401 Advanced Statistics;
 - PSYC 4421 History of Psychology;
 - PSYC 4500 Honours Seminar; and
 - PSYC 4549 Honours Thesis.

To determine a program of study that is appropriate to their future plans, honours students should consult with the Psychology Advisor.

Cooperative Education in Psychology

The cooperative education program in Psychology allows eligible students to complement their academic studies with experience in relevant work environments. The program involves the completion of a minimum of three terms of approved work experience, and generally takes one year longer to complete than the corresponding traditional degree. A “Cooperative Education” notation is added to the academic transcripts of students who successfully complete the requirements of the program in addition to their regular degree requirements.

Application to the program takes place via the Cooperative Education Office and is normally submitted after the second semester of Year 1. Admission to the program requires a minimum cumulative quality point average of 2.50 and a minimum quality point average of 3.00 in psychology courses.

Further detail concerning the requirements and regulations of the cooperative education program can be found in Section 3 of this *Calendar*, under Faculty of Science.

The Certificate in Human Resource Management

Students may enrol in the Certificate program in Human Resources Management as a stand-alone program, either prior to completing or following completion of a bachelor’s degree. Students who major in psychology as part of either a Bachelor of Arts or Bachelor of Science degree may also obtain a certificate in Human Resource Management by selecting an appropriate set of interdisciplinary courses.

The combined program offers students a sound foundation in basic and applied topics relevant to either a career or graduate training in the field of Human Resource Management and related areas. Details on this certificate can be found under Human Resource Management in this *Academic Calendar*.

GRADUATE PROGRAMS IN PSYCHOLOGY

The Department offers a Master of Science degree in Applied Psychology with a concentration in Industrial/Organizational Psychology or Forensic Psychology, and a Ph.D. in Industrial/Organizational Psychology. There are a limited number of placements available in these programs and competition for these positions is extremely high. For additional information on graduate programs see the *Graduate Academic Calendar*.

Course Descriptions**1200 Introduction to Psychology (Group C)**

3 credit hours

Students are introduced to the major areas of psychological science and its applications. Topics include research methods, neuropsychology, sensation and perception, states of consciousness, learning, memory, cognition, language and intelligence, social behaviour, personality, and psychological disorders. Additional topics may include motivation, emotion, stress and health.

1210 Mind and Brain (Group A)

3 credit hours

An overview of the biological foundations of attributes of the brain including consciousness, memory, language, and perception.

1220 Introduction to Evolutionary Psychology (Group A)

3 credit hours

Students analyze the biological events that shape human behaviour. Topics include evolution and social, sexual, and aggressive behaviour.

1230 Introduction to Memory (Group A)

3 credit hours

Students review research and theory in memory.

1235 Introduction to Learning (Group A)

3 credit hours

Students review the fundamental principles of learning and their applications to human behaviour.

1240 Introduction to Developmental Psychology (Group B)

3 credit hours

Students examine theories of human development across the life span.

1250 Introduction to Social Psychology (Group B)

3 credit hours

Students are introduced to the study of social behaviour and to contemporary theory and research in the field.

1260 Introduction to Personality (Group B)

3 credit hours

Students are introduced to history, concepts, models and methods in personality theory and research.

2340 Research Methods in Psychology (Group C)

3 credit hours

Prerequisite: six (6) credit hours in PSYC.

This course familiarizes students with basic principles of experimental and correlational research design, survey design and construction, reliability, validity, qualitative methods, and research ethics.

Classes 3 hrs. and lab 1.5 hrs a week.

2350 Psychological Statistics (Group C)

3 credit hours

Prerequisite: PSYC 2340 or SOCI/CRIM 2100 if doing a double major in Psychology and Sociology/Criminology.

Statistics with interpretation for the social sciences. Topics will advance areas learned in the prerequisite course and will cover simple and two-way ANOVA, regression, and correlation.

Classes 3 hrs. and lab 1.5 hrs. a week.

NOTE: Students will not receive credit for both PSYC 2350 and any of BIOL 3308, MATH 1216, or GEOG 3326.

3307 Biological Origins of Behaviour (Group A)

3 credit hours

Prerequisite: PSYC 1220.

Students examine advanced topics in evolutionary psychology including an exploration of the biological origins of emotion, motivation, morality, religion, humor, and language.

3309 Human Factors and Performance (Group A)

3 credit hours

Prerequisite: three (3) credit hours in PSYC.

An examination of human performance in technological environments including the design of tools, systems, and environments.

3310 An Introduction to Cognitive Neuroscience (Group A)

3 credit hours

Prerequisite: (PSYC 1210 or 1230) and 2350.

A review of the empirical research and theory in cognitive neuroscience, a sub-discipline of psychology that concerns the linkage between mind and brain. Students will be exposed to topics concerning the neural bases of sensation, object recognition, action, emotion, memory, language, attention, and executive control.

Classes 3 hrs. a week and lab 3 hrs a week.

3317 Group Dynamics and Intergroup Relations (Group B)

3 credit hours

Prerequisite: PSYC 1250

An examination of key topics in social psychology of group dynamics and intergroup relations. These include conceptualizations of groups and group behaviour, the roots and consequences of prejudice and stereotyping, theories of intergroup relations, social identity, and responses to discrimination.

3320 Psychology and Law (Group B)

3 credit hours

Prerequisite: three (3) credit hours in PSYC

Students are introduced to the psychological science relevant to legal procedures, including the reliability of eyewitness testimony, the role of experts in the courts, subject apprehension and interview, deception-detection, and jury decision making.

3327 Industrial/Organizational Psychology (Group B)

3 credit hours

Prerequisite: three (3) credit hours in PSYC

Introduction to methods and problems in industrial/organizational psychology. Representative topics will be drawn from the area of organizational behaviour, personnel psychology, human factors, and consumer behaviour.

3329 Child Development (Group B)

3 credit hours

Prerequisite: three (3) credit hours in PSYC

A survey of physical, perceptual, cognitive, and social development of the child from infancy to preadolescence.

3332 Adolescent Development (Group B)

3 credit hours

Prerequisite: three (3) credit hours in PSYC

An examination of the biological, cognitive, and personal growth of adolescents. Topics include physical growth patterns, development of interpersonal relationships, cognitive growth, and theories of adolescent development.

3335 Abnormal Psychology: History and Theory (Group B)

3 credit hours

Prerequisite: PSYC 1260

A focus on the essentials of history, theories of etiology, assessment, diagnosis and methods of treatment.

3336 Abnormal Psychology: Specific Disorders (Group B)

3 credit hours

Prerequisite: PSYC 3335 which may be taken concurrently..

A course which focuses on the description, etiology, diagnosis and treatment of specific disorders.

3338 Introduction to Forensic Psychology (Group B)

3 credit hours

Prerequisite: PSYC 3335, or equivalent; which may be taken concurrently.

A review of psychological methods, research and theory that is applied to legal system tasks; an introduction to forensic assessment, and treatment in a legal context.

3347 Longevity and Aging (Group B)

3 credit hours

Prerequisite: three (3) credit hours in PSYC.

An overview of the neuropsychological, physiological, clinical and personological aspects of the later phases of life. Normal and abnormal patterns of aging are examined. Topics include research from neuropsychology, neuroanatomy, personality, clinical psychology, gerontology and geriatrics.

3348 Gender Roles (Group B) [WMST 3348]

3 credit hours

Prerequisite: three (3) credit hours in PSYC

An introduction to the psychological concept of gender as it relates to behavioral, emotional, and cognitive development. Theories as to the sources of gender differences and similarities will be reviewed and discussed in relation to the impact of gender roles on intimate relationships, family, work, and physical and mental health.

3349 Drugs and Behaviour (Group A)

3 credit hours

Prerequisite: PSYC 1210

Effects of psychoactive drugs on normal and abnormal behaviour and on consciousness. Explanations are in terms of brain functioning. Discussion of methods used in the study of drug effects on animals and humans.

3351 Prevention and Treatment of Addictions (Group B)

3 credit hours

Prerequisite: three (3) credit hours in PSYC.

An introduction to the field of addictions including the full continuum from low harmful involvement to chemical dependency and problem gambling, including a review of the major perspectives or models used to conceptualize addiction problems. The strategic process related to planning, delivering, and evaluating addiction-related prevention and treatment programs and services will also be reviewed.

3355 Cognitive Psychology (Group A)

3 credit hours

Prerequisite: one of the following courses: PSYC 1210, 1230, or 1235.

A survey of basic perceptual and cognitive processes including attention, sensation, perception, pattern recognition, learning, and memory.

3360 Applied Sport Psychology (Group B)

3 credit hours

Prerequisite: three (3) credit hours in PSYC

An examination of sport psychology as applied to performance enhancement, anxiety control, and psychologically healthy lifestyles. This course emphasizes the application of sport psychology to improve the quality of sport and life experiences.

3386 Behavioral Analysis and Change (Group B)

3 credit hours

Prerequisite: PSYC 1235 and 2340 [2340 may be taken concurrently.]

A review of the principles, procedures, and empirical and theoretical underpinnings of behaviour modification.

3392 Occupational Health Psychology (Group B)

3 credit hours

Prerequisites: three (3) credit hours in PSYC

This course examines current issues pertinent in occupational health psychology including workplace stress, violence in the workplace, and occupational safety. In addition to these content areas, the course will consider relevant legislation, preventive strategies, and the management of occupational health and safety issues in today's workplaces.

3393 The Psychology of Leadership (Group B)

3 credit hours

Prerequisite: PSYC 1250

An examination of leadership theories in the context of organizational systems, Special topics include, but are not limited to, women and leadership, team leadership, and leadership ethics. Practical applications are considered with respect to leadership in organizations.

3429 Human Sexual Behaviour (Group B)

Prerequisite: Three (3) credit hours in PSYC

Students are introduced to the study of human sexuality. While the primary emphasis is on psychological issues pertaining to human sexual behavior, cultural, biological and historical perspectives are also considered. Students examine

empirical research and theory covering a broad range of human sexuality issues.

3430 Cross-Cultural Psychology (Group B)

Prerequisite: Three (3) credit hours in PSYC

Students will focus on human psychology across cultures, with the aim of raising understanding of human commonality and diversity. To what extent is social behaviour different or the same across the world? What theories can we use to understand the thoughts, feelings, actions, and beliefs of people across cultures?

3431 Political Psychology (Group B)

Prerequisite: Three (3) credit hours in PSYC or POLI

Students explore several key approaches to understanding the psychology of political behaviour and the psychological origins of political beliefs and actions from a variety of perspectives.

3441 Community Leadership (Group B)

Prerequisite: Three (3) credit hours in PSYC

Students explore the application of leadership research and principles to the process of leading positive change in the world. Students examine their leadership strengths, and identify areas for growth and development, while beginning to apply their evolving leadership skills to a real life issue of interest to them.

3826 – 3849 Special Topics in Psychology (Group C)

3 credit hours

Prerequisite: three (3) credit hours in PSYC.

Courses on selected psychological topics.

4326 Romantic Relationships (Group B)

Prerequisites: PSYC 1250, PSYC 2340, and PSYC 2350

This course includes an extended coverage of topics in intimate relationships with an emphasis on maintenance and well-being in ongoing romantic relationships. Topics include intimacy, sexual intimacy, sexual well-being, relationship identification, attachment, and commitment.

PSYC 4329 Advanced Human Sexual Behaviour (Group B)

Prerequisite: PSYC 3429

This course is designed to build upon topics introduced in PSYC 3829 (Human Sexual Behaviour). Students critically explore selected issues in human sexual behaviour.

4335 Children's Peer Relationships (Group B)

Prerequisite: PSYC 2340, PSYC 2350 and either PSYC 3329 or PSYC 3322

In this seminar, students consider on contemporary theory and research on peer relationships during childhood and adolescence. Topics include, but are not limited to: peer status and social goals, friendship and cliques, social withdrawal and peer rejection, bullying and psychosocial adjustment.

4401 Advanced Statistics (Group C)

3 credit hours

Prerequisite: PSYC 2340, PSYC 2350

The application and interpretation of factorial analysis of variance, repeated measures designs, multiple regression, and various correlation techniques for the social sciences.

Classes 3 hrs. and lab 3 hrs. a week.

4407 Introduction to Ethology (Group A)

3 credit hours

Prerequisite: PSYC 2340, PSYC 2350 and PSYC 1220 or PSYC 3307 or permission of instructor.

Introductory study of the principles of early and modern ethology. Topics include instinct and learning, communication, navigation, and behavioral genetics.

Classes 3 hrs. a week.

4410 Human Neuropsychology (Group A)

3 credit hours

Prerequisite: PSYC 3310.

Background to the clinical understanding of brain-behavioral relations will be provided with special emphasis on higher cortical functions. An introduction to neuropsychological testing and its role in the assessment of neurobehavioral pathology.

Classes 3 hrs. and lab 3 hrs. a week.

4411 Advanced Cognitive Neuroscience (Group A)

3 credit hours

Prerequisite: PSYC 2340, PSYC 2350 and PSYC 3310

A seminar on contemporary cognitive neuroscience research and theory. Topics may include any of the following: perception, attention, consciousness, executive control, decision-making, memory, emotion, social neuroscience, neuroeconomics, neurolaw, and applied neuroscience.

4413 Thinking and Reasoning (Group A)

3 credit hours

Prerequisite: PSYC 2340, PSYC 2350 and 3355. Completion of 4401 is advised.

An examination of higher-order cognitive processes including problem solving, concept formation, knowledge representation, language, reasoning, decision making, creativity and intelligence. Information-processing and connectionist models will be reviewed.

Classes 3 hrs. and lab 3 hrs. a week.

4417 Interpersonal Relationships (Group B)

3 credit hours

Prerequisite: PSYC 2340, PSYC 2350 and one of: PSYC 1220, 1240, 1250, or 1260.

Intensive coverage of aspects of interpersonal behaviour. Topics will include relationship development and maintenance, friendships, sibling relationships, liking and loving, social and cultural influences on interpersonal

relationships, sexuality, and gender differences in interpersonal relationships, including dating behaviours and attitudes.

4418 Environmental Psychology (Group A)

3 credit hours

Prerequisite: PSYC 2340, PSYC 2350.

The study of behaviour in its relation to the environment. Topics include personal space, crowding, the city, architectural design, and behaviour.

4420 Disabilities (Group A)

3 credit hours

Prerequisite: Twenty-four (24) credit hours in PSYC including PSYC 2340, and PSYC 2350.

This course will examine the biological, psychological, and social impact of various types of acquired and developmental disabilities. This course is divided into three parts: (1) review genetic and environmental factors associated with developmental disabilities; (2) review of the physiological aspects of various types of acquired and developmental disabilities and the outcome; and (3) address the historical, political, ethical issues dealing with persons with disabilities in Canada.

4421 History of Psychology (Group C)

3 credit hours

Prerequisite: twenty-four (24) credit hours in PSYC including PSYC 2340 and PSYC 2350.

An examination of the origins and development of modern psychology.

4425 The Psychology of Organizational Development (Group B)

3 credit hours

Prerequisite: PSYC 2340, PSYC 2350 and either PSYC 3327 or MGMT 2383.

An examination of strategies designed to improve organizational effectiveness using behavioral science knowledge. Attention will be devoted to understanding factors that influence the success of organizational change initiatives and the process of change.

4426 Personnel Training and Development (Group B)

3 credit hours

Prerequisite: PSYC 2340, PSYC 2350 and either PSYC 3327 or MGMT 2383

Intensive examination of topics related to training and systematic organizational development. Emphasis is on application of psychological concepts and principles of learning in the contexts of needs assessment, curriculum development, transfer of training, and evaluation.

4427 Organizational Psychology (Group B)

3 credit hours

Prerequisite: PSYC 2340, PSYC 2350 and PSYC 3327

Extended coverage of topics in organizational behaviour with an emphasis on the application of psychological

concepts to problems encountered in work environments. Topics may include the structure and climate of organizational environments, leadership, communication, motivation and decision-making.

4428 Personnel Psychology (Group B)

3 credit hours

Prerequisite: PSYC 2340, PSYC 2350 and 3327.

Extended coverage of topics in personnel psychology with an emphasis on the application of psychological concepts to problems encountered in work environments. Topics may include job analysis, recruitment and selection, training and performance, performance evaluation, industrial relations, and occupational health and safety.

4432 Attitudes and Persuasion (Group B)

3 credit hours

Prerequisite: PSYC 1250, PSYC 2340 and 2350

This course is designed to provide students with an introduction to attitude and persuasion research. Particular attention will be given to reviewing the various theoretical perspectives that have been proposed as explanations for the psychological processes underlying persuasion.

4434 Personality (Group B)

3 credit hours

Prerequisite: PSYC 1260, PSYC 2340 and 2350.

Examination of selected theories of personality through intuitive, rational, historical, and empirical methods.

4436 Counselling and Psychotherapy (Group B)

3 credit hours

Prerequisite: PSYC 2340, PSYC 2350 and PSYC 3336 which may be taken concurrently.

A review of theory, method, and practice in counselling and psychotherapy.

4438 Advanced Forensic Psychology (Group B)

3 credit hours

Prerequisite: PSYC 2340, PSYC 2350 and 3338.

A review of research on assessment tools, intervention effectiveness and epidemiology of criminal behaviour; the application of such research in forensic assessment, and treatment in a legal context.

4441 Psychological Measurement (Group B)

3 credit hours

Prerequisite: PSYC 2340, PSYC 2350.

A review of the nature and use of psychological tests with an emphasis on norms, the interpretation of test scores, test reliability, and test validity.

4443 Advanced Psychology and Law (Group B)

3 credit hours

Prerequisite: PSYC 3320; PSYC 2340 and 2350.

A closer examination of the research on several topics in the area of psychology and law that may include eyewitness

testimony, children in the courts, police selection and procedures, workplace harassment and discrimination, jury decision-making, and alternative dispute resolution.

4445 Directed Research in Psychology (Group C)

3 credit hours

Prerequisite: twenty-four (24) credit hours in PSYC including PSYC 2340 and PSYC 2350.

Research experience for advanced students on problems in psychology. Students must secure the consent of a member of the Department to supervise their work before attempting to register for the course.

Classes and labs 6 hrs. a week.

4446 Seminar in Psychology (Group C)

3 credit hours

Prerequisite: twenty-four (24) credit hours in psychology including PSYC 2340 and PSYC 2350.

A seminar for advanced students on specialty areas in psychology. Extensive reading, oral presentations, and written reports or projects will ordinarily be required.

4450 Behaviour Problems of Children (Group B)

3 credit hours

Prerequisite: PSYC 2340, PSYC 2350 and PSYC 3329.

A review of emotional and behavioral problems exhibited by children, including a survey of classification systems, assessment, and treatment.

4456 Advanced Counselling and Psychotherapy (Group B)

3 credit hours

Prerequisite: PSYC 2340, PSYC 2350 and PSYC 4436.

Extended study of selected theories and related techniques. Course work may involve supervised, simulated practice in dyads or small groups.

4489 Positive Psychology (Group B)

3 credit hours

Prerequisite: PSYC 2340 and PSYC 2350.

A comprehensive series of presentations covering the application of "positive" psychological concepts and principles to personal growth and well-being. Topics include communication, relationships, support, and authenticity.

4490 Health Psychology (Group B)

3 credit hours

Prerequisite: PSYC 2340 and PSYC 2350

An examination of the psychological factors involved in health, illness, and treatment. Topics include health research methods, health promotion, modification of health behaviours, stress, coping, social support, and personality.

4497 Community Psychology (Group B)

3 credit hours

Prerequisite: PSYC 1250, PSYC 2340 and 2350.

A review of the theoretical and empirical foundations of community psychology. The course explores the development of psychosocial environments, methods of assessing community characteristics and their relevance to mental health, and perspectives in community development and social change. Students will be introduced to applied psychology in relation to consultation, epidemiology, and prevention methods.

4500 Honours Seminar (Group C)

3 credit hours

Prerequisite: at least forty-two (42) credit hours in PSYC and final year of honours program.

This is a seminar designed for honours students. It reviews the current state of theory and research in psychology and prepares honours students for study in graduate and professional programs related to psychology. Extensive reading, oral presentations, and reports or projects will be required.

4549 Honours Thesis (Group C)

6 credit hours

Prerequisite: honours standing.

A research project in psychology that will serve as the basis for a written thesis. Honours students must secure the consent of a member of the Department to supervise their work before attempting to register for the course.

Classes and lab 6 hrs. a week. 2 semesters.

4826-49 Special Topics in Psychology

3 credit hours

4876-99 Directed Study in Psychology

3 credit hours

Religious Studies (RELS)

Chairperson	A. Soucy
Professor	A. Soucy
Associate Professors	M. Abdul-Masih,
Assistant Professor	M. Hale, S.A. Hussain, S. Krishnamurti
Adjunct Professors	E. Chung, R.Ramji
Professors Emeriti	P. Bowlby, T. Murphy, E. Stiegman

The Religious Studies Department offers courses on the religious dimensions of human life in societies and cultures from a contemporary, global perspective. Courses on religion and culture are offered as a way to explore various disciplines and their approaches to the study of religion or to engage in a debate around a theme structured to include both religious and non-religious views. Such courses may examine a theme comparatively in order to show the views of different religious traditions or a theme may be presented in terms of a debate between religious and non-religious understandings. Courses on the comparative study of religions include surveys of the major religious traditions of the world as well as courses which compare characteristics of religious life across several religious traditions. Examining religious diversity in Canada and around the world is also part of the study of comparative religions. By virtue of its character and history, Saint Mary's University has a special responsibility to teach courses on Christianity.

Electives

Students seeking an elective may take any Religious Studies course at the 1000 or 2000 level. Students who have completed 30 credit hours of university course work and have completed a minimum of three (3) credit hours at the 1000 level and three (3) credit hours at the 2000 level may register for a 3000 level course in Religious Studies to complete a degree requirement for an elective at the 3000 level.

Degree Requirements

Religious Studies courses at the 1,000, 2,000 or 3,000 level satisfy a humanities requirement in the Arts Faculty; non-Commerce electives in the Sobey School of Business and the humanities requirements in the Faculty of Science.

A Minor in Religious Studies

A minor in Religious Studies may be completed by taking twenty-four (24) credit hours in Religious Studies as follows:

1. Six (6) credit hours may be at the 1000 level;
2. Six (6) credit hours must be at the 2000 level from the Traditions courses (section III, see courses list below);
3. Six (6) credit hours must be at the 2000 level from the Issues courses (II).
4. Six (6) credit hours must be at the 3000 level from the Traditions (III) or Issues courses (II);
5. An overall grade point average of 2.00 must be maintained in the twenty-four (24) credit hours.

In a Religious Studies minor students must complete at least twelve (12) of the twenty-four (24) required credit hours at Saint Mary's.

B.A. Concentration Requirement in Religious Studies.

Only students in the ninety (90) credit hour B.A. may complete the concentration requirement in Religious Studies. The requirement may be completed by taking twenty-four (24) credit hours in Religious Studies, which include: The credits toward the concentration requirement in Religious Studies must include the following:

1. Three (3) credit hours may be at the 1000 level
2. Six (6) credit hours must be at the 2000 level from two different traditions (A, B & C) [section III, see courses list below];
3. Six (6) credit hours at the 3000 level building from the Traditions courses taken in 2. above.
4. Six (6) credit hours at the 3000 level from the Issues courses;
5. Three (3) credit hours at the 4000 level seminars in Religious Studies.6. An overall grade point average of at least 2.00 must be maintained in the twenty-four (24) credit hours in Religious Studies.

Major in Religious Studies

Students majoring in Religious Studies must fulfill the following requirements:

The equivalent of thirty-nine (39) credit hours in the Department. Normally, these will be distributed as follows:

1. Six (6) credit hours at the 1000 level;
2. Six (6) credit hours at the 2000 level from two different traditions (taken from the Traditions courses (A,B and C)
3. Nine (9) credit hours at the 2000 level from the Issues courses (II);
4. Six (6) credit hours at 3000 level from the Traditions courses taken in 2 above.
5. Three (3) credit hours at the 3000 level from the Issues courses
6. RELS 3351 Field Research;
7. RELS 4481 Theories and Methods (Please note this course is offered in alternating academic years);
8. Three (3) credit hours at the 4000 level;
9. An overall minimum grade point average of 2.00 in the courses counted toward the major.

Honours in Religious Studies

An honours student must complete sixty-three (63) credit hours in Religious Studies courses which include:

1. All of the requirements for a Religious Studies major [thirty-nine (39) credit hours];
2. Three (3) credit hours at the 3000 level from the Issues courses
3. Three (3) credit hours at the 3000 level from the Traditions courses

4. Three (3) credit hours at the 3000 level from Scriptural Analysis in the Methods courses (IV)
5. Nine (9) credit hours at the 3000 level or above;
6. RELS 4000 Honours Thesis Research
7. RELS 4001 Honours Thesis Writing.
8. In addition to the sixty-three (63) credit hours in Religious Studies students must complete at least six (6) credit hours in a language chosen from among: Hebrew, Greek, Latin, Chinese, Japanese, Arabic, French, Spanish and German or another language acceptable to the department;

Admission to an honours program normally requires Department approval no later than when a student has completed sixty (60) credit hours. In addition to the Faculty of Arts requirements for honours, a minimum grade point average of 3.00 in Religious Studies courses is required for admission to, and continuation in, the honours program.

Student Counseling

Students completing a minor, a concentration, a major and honours must have their Religious Studies courses approved by the undergraduate advisor on an annual basis. In some instances, majors and honours students will be requested to take prerequisites for Departmental courses. Suggested prerequisites are kept on file in the Department. With renumbered or restructured courses, students are advised that they are not eligible to take a course for credit if they already have a credit for a comparable course, even if that course was taken at a different level.

Notes:

With renumbered or restructured courses, students are advised that they are not eligible to take a course for credit if they already have a credit for a comparable course, even if that course was taken at a different level.

Course Descriptions

1210 Introduction to Religion

3 credit hours

Religion as a subject of study is relatively new, starting only in the nineteenth century. This course will deal with how religion became an object of study and the approaches and theories that have been used to come to grips with how religion fits into people's lives. It will also look at characteristic ways that the ultimate reality is approached and how religious life fits into contemporary culture.

1211 Introduction to Religious Experience

3 credit hours

The course will introduce students to the many dimensions of the human experience of the sacred inspired by religious texts, ritual, chant and music; by mysticism, sacred places either in nature or in temples and in art of all kinds.

1220 Introduction to Comparative Religions I

3 credit hours

Religious Diversity in Canada has come to include the Hindu and Buddhist traditions of South Asia and the Chinese and Japanese traditions. This course examines these religious traditions both in the context of their historical origins and their adaptations to Canadian Society.

1221 Introduction to Comparative Religions II

3 credit hours

Religious Diversity in Canada includes Judaism, Christianity, and Islam. This course examines these religious traditions both in the context of their historical origins and their adaptations to Canadian Society.

1251 Religion in Contemporary Culture

3 credit hours

This course explores the role of religion in contemporary culture, particularly North American culture. Portrayals of religious people as well as the employment of symbols and themes from various world religions will be identified within selected pieces of contemporary art, film, literature, music, Internet, and other media. We will also consider emerging religious trends and whether certain cultural practices are functioning in a religious role.

Courses at the 2000 level may be used by students to complete their humanities requirement or as an elective in their degree program.

2305 Women in Christianity [WMST 3305]

3 credit hours

This course calls attention to the unconventional attitude of Jesus toward women; it studies the prominence of women in the New Testament, in contrast to early restrictions of their leadership roles. Did Christianity conform, from the beginning, to patriarchal society, betraying its own insight that in Christ "there is neither male nor female" (Galatians 3:28). Has Christian tradition legitimated male dominance? What can the cause of women's equality hope for from Christianity?

2323 The Islamic Religious Tradition

3 credit hours

Islam is one of the most rapidly expanding religious traditions in the world. This course will examine the origins of Islam, its fundamental teachings in the Qu'ran and in the works of some of its major teachers. In addition, the course will survey the history of Islam and contemporary developments in selected areas.

2326 South Asian Religious Tradition

3 credit hours

Students are introduced to the diverse religious traditions of South Asia (India, Pakistan, Bangladesh, Nepal, and Sri Lanka). Students will become familiar with basic concepts, themes, and practices of Hindu, Sikh, Jain, Guddhist, and South Asian Muslim traditions.

2327 The Buddhist Religious Tradition

3 credit hours

The Buddhist religious tradition was founded in South Asia, spread throughout East and Southeast Asia, and now is growing in the West. Students are introduced to key Buddhist teachings, the transformations they have undergone in different countries, and the development of different sects. Particular attention will be paid to its contemporary cultural dimensions in Asia and in Canada.

2330 Spirituality and Work

3 credit hours

Is the emerging (or re-emerging) interest in spirituality in the workplace enabling more individual fulfillment and better decision-making or is it creating new conflicts and more exclusionary workplace practices? What influences do religious traditions and worldviews have on how we work together? The increasing globalization of business and communication, the need for more qualified immigrants to Canada, and the growing diversity of people in many workplaces is forcing re-examination of inherited attitudes and expectations about work. These changes require deep understanding of what spirituality, as the deepest source of values, can mean as workplaces change and people make choices about work, vocation, or calling. This course explores the potential, the benefits and the dangers of bringing spirituality into the workplace.

2333 Gender, Sexuality and Religion Today [WMST 2333]

3 credit hours

How has religion informed the way that we understand gender and sexuality through time and across cultural contexts? Students take a comparative and multidisciplinary look at some of the prevailing narratives about women, men, creation, morality, and belief in world religions. Students explore issues such as religious leadership, gender rights, sexuality and sexual identity, and reproduction.

2342 Violence

3 credit hours

How do different religions deal with violence? When is violence justified and towards whom? Students explore religious responses to these questions using a comparative approach. Topics include: religiously justified warfare, terrorism, gendered violence, and the rejection of violence in religious philosophies.

2343 Jewish Religious Tradition

3 credit hours

The course examines the origin and development of the Jewish faith as it is remembered in the Hebrew Scriptures and tradition. Selected contemporary debates in Jewish faith and tradition will be studied.

2347 Ecology and Religion

3 credit hours

The course reviews the phenomenon of human ecology in order to advance to further questions: In the human relationship to nature, does nature have rights? To reduce pollution, may the rich deprive the poor of advanced technology? Is a low-consumption life-style desirable in itself? Should we leave development and progress to the experts? Such questions prepare the ground for a theology that finds religious meaning in the worldly realities of science, commerce, and government.

2350 Faith in Action: Religion and Social Movements

3 credit hours

Students explore the religious dimensions of important social movements throughout the world, such as Engaged Buddhism and the Abolitionist, Anti-colonialism, Peace, Social Gospel, Temperance, and Civil Rights movements. Students will examine the stories of such important activists as Louise McKinney, Mohandas K. Gandhi,

Dorothy Day, Martin Luther King Jr., The Dalai Lama, and Thich Nhat Hanh. The emphasis will be on social justice movements. The causes of the rise of reactionary, so-called "fundamentalist" movements will also be considered.

2351 Love

3 credit hours

Our culture has represented love, variously, as effecting self-fulfillment, the affirmation of another personality, union with deity, merit for a future life; or, as sex, a passing neurosis, an unreasoned self-annihilation, or a social contrivance. This course explores the assumptions and implications of these views, particularly as they involve ultimate human concerns, that is, religion. The course can be continued into RELS 2352 where a coordinate theme is studied in a similar manner.

2352 Death

3 credit hours

The student considers such questions as what dying is really like, whether dying provides a valuable point of view of living, whether people continue in some form of existence after dying, how one is to understand the symbols in religious talk about death, and why mythologies deal so heavily in death.

2353 New Religious Movements

3 credit hours

New Religious Movements (sometimes called cults and sects), are a complex and diverse sub-topic. Students explore the ways in which these movements challenge conventional understandings of religious practice and belief, including how religions are defined and the intersection of religion and the modern state.

2360: Feasting and Fasting: Religion and Food

3 credit hours

Food and eating play an important role in religion. In communities around the world, foodways are shaped by religious traditions and practices. Topics such as fasting, the making of offerings, dietary rules, and traditions and restrictions around commensality are examined in several world traditions

2377 Introduction to the Bible: Hebrew Scripture

3 credit hours

The course introduces the Hebrew Scriptures/Old Testament. Students are introduced to the text along with the cultural and historical context of the biblical literature. The course also examines the meaning and relevance of these scriptures for today.

2378 Introduction to the Bible: New Testament

3 credit hours

The course introduces the New Testament scriptures of the Christian tradition. Students are introduced to the text along with the cultural and historical context of the biblical literature. The course examines the meaning and relevance of the New Testament today.

2401 Religions of China and Japan

3 credit hours

Students examine the major religious traditions of Confucianism, Daoism, Buddhism and Shinto, as well as popular manifestations of religion, such as belief in ghosts, ancestor worship, fortune telling, feng shui and spirit possession.

3010 Vietnamese Religious Traditions

3 credit hours

This course explores religion in the Vietnamese context and how it relates to social issues, like the construction of a national identity, politics and gender. The course will also examine the role religion has played in the lives of overseas Vietnamese.

3220: African Diaspora Religions

3 credit hours

Prerequisites: 3 hours RELS at the 1000 level and 3 hours RELS at the 2000 level, or permission of the instructor

There are diverse religious traditions and practices throughout the African diaspora (Africa, Europe, and the Americas). Topics covered may include: Islam and Christianity in the African diaspora; modern Ifa and Yoruba spiritual religion; Voudoun, Candomble and other Caribbean traditions; Rastafarianism; Pan-Africanism and religion; religion under slavery; racism and religion; religion in the African Nova Scotian community.

3303 Christian Origins

3 credit hours

Prerequisite: 30 credit hours including 3 hours RELS at the 1000 level and 3 hours RELS at the 2000 level

This course treats the formation and development of Christianity as seen through the letters of Paul. It examines the origin of Pauline Churches, their separation from Judaism, their struggles, beliefs, and worship.

3311 Jesus of Nazareth

3 credit hours

Prerequisite: 30 credit hours including 3 hours RELS at the 1000 level and 3 hours RELS at the 2000 level

Jesus of Nazareth: Did Jesus really exist? What did he teach? Why was he killed? What does the resurrection mean? In examining these questions, the course will survey the many responses to Jesus' question, "Who do men say that I am?"

3312 Theologies of Liberation

3 credit hours

Prerequisite: 30 credit hours including 3 hours RELS at the 1000 level and 3 hours RELS at the 2000 level

How has the life and teaching of Jesus made justice the central issue in Christianity today? What is liberation theology in the third world? Is capitalism opposed to the teaching of Jesus? What is Jesus' teaching about the poor, the oppressed, human rights and violent revolution?

3316 Anthropology of Religion [ANTH 3316]

3 credit hours

Prerequisite: any one of ANTH 1202, RELS 1210, 1211, 1220, 1221, 1251

This course surveys major developments in the anthropological study of religions. The course will provide a solid theoretical foundation for the field study of contemporary religions.

3318 Ghosts: A Cultural Approach

3 credit hours

Prerequisite: 30 credit hours including 3 hours RELS at the 1000 level and 3 hours RELS at the 2000 level

Virtually all cultures hold beliefs of human souls lingering after death and having an effect on the living. Students explore beliefs in ghosts in a cross-cultural context, examining a range of cultural products related to ghosts including movies, folktales, and ghost tourism from around the world. Students also explore anthropological theories regarding beliefs and practices related to ghosts.

3328 The Catholic Church Today

3 credit hours

Prerequisite: RELS 2378 or the equivalent

The Catholic Church has radically changed. What does it teach today about faith, revelation, God, Jesus Christ, Sacraments, ethics, and human destiny? Students will be introduced to a brief historical development on each of these teachings.

3330 Spirituality in the Workplace

3 credit hours

Prerequisite: 30 credit hours including 3 hours RELS at the 1000 level and 3 hours RELS at the 2000 level

Through case studies in the literature, and guest lecturers engaging in practices that support spirituality in the workplace, students will make the connection between the theory and practical developments in real workplaces. Class seminars will explore need for spirituality in the workplace, corporate responses to that need, and the external influences shaping the future of work. Guest lecturers will contribute first-hand experience of the challenges and dilemmas facing business leaders, managers and employees seeking ways to "bring their whole selves to work." Transformative learning exercises will enable students to explore their own responses to challenges and dilemmas around spirituality in the workplace.

3336 Creation and Evolution: The Religious Issues

3 credit hours

Prerequisite: 30 credit hours including 3 hours RELS at the 1000 level and 3 hours RELS at the 2000 level

The theory of evolution is a powerful tool for answering scientific questions about life in this world. The success of the scientific enterprise has led many people to seek answers to their religious questions in "evolutionary" ideas. On the other hand, the biblical account of creation is a fruitful source of insight into religious questions about why the world is as we find it. The central importance of biblical truth for Christians and Jews had led many of them to seek answers to scientific questions in the creation story. What are the relevant religious questions?

3337 Asian Religions and the Arts

3 credit hours

Prerequisite: 30 credit hours including 3 hours REELS at the 1000 level and 3 hours REELS at the 2000 level

The arts have been an important mode of expression of religious ideas and ideals in historical and contemporary Asia. Students examine visual arts, architecture, music and performance traditions that are associated with the religious traditions of the region.

3348 Religion and Ecological Issues in the Developing World

3 credit hours

Prerequisite: 30 credit hours including 3 hours REELS at the 1000 level and 3 hours REELS at the 2000 level

This course will examine the religious and moral issues involved in contemporary debate around the implementation of environmental programs in the so-called developing nations. Population control, competing interests in natural resources, and the role of women's groups will be among the topics discussed. Attention will be paid to the religious voices involved.

3349 Science and Religion

3 credit hours

Prerequisite: 30 credit hours including 3 hours REELS at the 1000 level and 3 hours REELS at the 2000 level

In this course we will explore the relationship between science and religion. In the past this relationship was defined mainly by difference, difference in method, understanding of knowledge and language. Because of contemporary crises such as poverty and oppression world-wide and ecological crisis, religion and science are finding new reasons to cooperate. Religious issues involved in this cooperation such as women's critique, new religious movements and environmental concerns will be examined in this course.

3351 Field Research Methods

3 credit hours

Prerequisite: Religious Studies or Anthropology Major or Honours, or Religious Studies Concentration with the permission of the instructor.

Students are provided with the appropriate qualitative tools for conducting field-based research. Students develop a research project through various stages. Emphasis is placed on project planning, research ethics, participant observation, interviewing, note-taking, and writing.

3354 Aboriginal Peoples, Religion, and the Justice System

3 credit hours

Prerequisite: 30 credit hours including 3 hours REELS at the 1000 level and 3 hours REELS at the 2000 level

This course will focus on the elements of religious and spiritual systems that are relevant in relations between aboriginal people and the Canadian criminal justice system. It will examine the historical and political context, key religious and ethical concepts and practices of aboriginal

peoples, and the movement to employ Native spirituality in shaping responses.

3355 Religion and Social Issues in Canada

3 credit hours

Prerequisite: 30 credit hours including 3 hours REELS at the 1000 level and 3 hours REELS at the 2000 level

The question of the interaction of religion and society is a key issue for religion because all religion seeks to influence the behavior of its adherents. While some religious groups are content to do so by appeal to persons as individuals, many religious groups often take public stands on public policy, organize pressure groups, or even form political parties. This course will examine the influence of religion on social issues in Canada. Representative personalities and organizations from various religious traditions will be studied.

3356 Religions in Film

3 credit hours

Prerequisite: 30 credit hours including 3 hours REELS at the 1000 level and 3 hours REELS at the 2000 level

Feature films and documentaries about religions and religious issues have proliferated in recent years. This course will examine a variety of topics which may include: how selected religious traditions such as Buddhism, Judaism, Hinduism, Christianity and Islam are presented in films; how films depict religious symbols and religious life, how religious and ethical issues are presented in the film narratives and documentary discussions.

3358 Religious Diversity in Canada

3 credit hours

Prerequisite: 30 credit hours including 3 hours REELS at the 1000 level and 3 hours REELS at the 2000 level.

In recent decades, religious diversity in Canada has come to incorporate Hindus, Buddhists, Muslims, multiple denominations of Christianity and many new religious movements. This course will examine both the history of religious diversity in Canada and the impact of the Charter of Human Rights and the Multiculturalism legislation. Selected examples of how new religious traditions are adapting in Canadian Society will also be studied.

3359 Buddhist Paths

3 credit hours

Prerequisite: 30 credit hours including 3 credit hours REELS at the 1000 level and 3 credit hours REELS at the 2000 level

The history of Buddhism has seen the development of multiple schools and sects that each practice Buddhism in a different way. Students explore this variety, looking at contemporary Theravada, Mahayana and Vajrayana practices in Asia and the West.

3360 Engaged Buddhism

3 credit hours

Prerequisite: REELS 2327 or 3359

Students examine the development of Engaged Buddhism in the modern period. Engaged Buddhism came about as a

critique against the view that Buddhism was something practiced by monks, in monasteries, and focused on what happened after death. Engaged Buddhists have instead proposed that Buddhism should be involved with transforming this world, leading to social, political and environmental activism.

3370 Introduction to the Qur'an

3 credit hours

Prerequisite: 30 credit hours including 3 hours RELS at the 1000 level and 3 hours RELS at the 2000 level

An examination of the Qur'an as scripture. The course includes its sources, structure, style, transmission, sciences, interpretation and basic themes.

3373 Islam in South Asia

3 credit hours

Prerequisites: 24 credit hours

A third of the entire Muslim population of the world lives in South Asia. Students will learn about the arrival of Islam in South Asia, its evolution and current manifestations in a sampling of its political, spiritual and social varieties.

3374 Islam in North America since 9/11

3 credit hours

Prerequisites: 24 credit hours

This course is a multifaceted look at issues of gender, law, and identity in North American Islam since September 11th 2001. This event and a subsequent culture of securitization marks a fundamental shift in the way that Islam is represented, and we will explore how Muslims in North America construct their identities and practice their religion.

3826 - 3849 Special Topics in Religious Studies

3 credit hours

3876 - 3899 Directed Readings in Religious Studies

3 credit hours

Prerequisite: Declared major, concentration, or minor in Religious Studies.

Directed Reading courses permit students to pursue independent research topics which are not part of the normal curriculum. Students must apply to department faculty to enroll in a directed reading course.

4000 Honours Thesis Research

3 credit hours

Prerequisite: Declared in the Honours degree program in Religious Studies

Under the supervision of faculty in religious studies, students will develop and honours thesis topic and complete the research for an honours thesis. Normally students will present their topic and research findings in a departmental seminar.

4001 Honours Thesis Writing

3 credit hours

Prerequisite: Declared in the Honours degree program in Religious Studies

Under the supervision of faculty in religious studies, students will write an honours thesis based on the topic and research completed in RELS 4000. Evaluation of the thesis will be by all faculty in religious studies.

4050 Religious Traditions in Canada

3 credit hours

Prerequisite: Declared Major or Honours in Religious Studies and completion of a minimum of 60 credit hours of university courses or permission of the instructor.

This course is a research seminar examining themes about historical and current issues involving religions in Canada and especially Atlantic Canada. Special emphasis will be given to comparative studies of Canadian themes in relation to North American and International patterns.

4100 Religion and International Development

3 credit hours

Prerequisite: Declared Major or Honours in Religious Studies or International Development Studies and completion of a minimum of 60 credit hours of university courses, or permission of instructor.

This course explores the role of religions in development. Historical, theoretical and practical dimensions are studied under such topics as: religion and colonialism, religion and social capital in developing countries, the manner of presence of religions in developing societies, religion based NGOs, engaged religion, indigenous religions today, and the increase of evangelical and fundamentalist religions in the developing world. The course requires a high level of seminar participation and research.

4150 Religion and Globalization

3 credit hours

Prerequisites: 24 credit hours

Technology has allowed for unprecedented movements of people and information resulting in profound changes in the way religious traditions are practiced. Students explore some of the key themes in the study of globalization of religions, like diaspora and transnationalism, in order to understand how globalization has affected the way traditions are practiced how they are understood.

4200 Postcolonialism and Religion

3 credit hours

Prerequisite: Declared Major or Honours in Religious Studies and completion of a minimum of 60 credit hours of university courses or permission of the instructor.

What is postcolonialism and how does it apply to the study of religion? When European and North American powers colonized a majority of the globe, they brought with them particular ways of defining legitimate religious behavior. Students explore ways in which these definitions continue to shape and challenge the ways we understand religion after colonialism

4387 Religious Pluralism

3 credit hours

Prerequisite: Declared Major or Honours in Religious Studies and completion of a minimum of 60 credit hours of university courses, or permission of instructor.

In Canada and in countries around the world, interpreters of religious pluralism frequently situate their analysis of religion within social theories about secularism, pluralism, globalization, multiculturalism and human rights. This course will examine those theories and their impact on the social location of religions and religious diversity in multicultural societies.

4389 Religion and Public Life

3 credit hours

Prerequisites: Fourth year, honours, or graduate student in RELS or related field.

A pressing question in Western democracies is the place of religion in public life. Students examine the historical presence of religion in public life and the ways in which its presence is manifest in the modern west and the questions/controversies that this presence elicits

4390 Religion and Society in Atlantic Canada

3 credit hours

Prerequisite: Declared Major or Honours in Religious Studies and completion of a minimum of 60 credit hours of university courses or permission of the instructor.

An historical examination of the relationship between religion and society in Atlantic Canada from the beginning of European settlement to the present. Themes to be considered include religion and the formation of regional/ethnic identities, religion and politics, religion and movements of social reform, and the impact of secularization on Atlantic Canadian society. Topics will be examined in the broader context of Canadian history and the evolution of the trans-Atlantic world.

4481 Theories and Methods in the Study of Religions

3 credit hours

Prerequisite: Declared Major or Honours in Religious Studies and completion of 42 credit hours of university courses.

The study of religious traditions includes detailed studies of specific religions, their historical development, and cultural expressions. It includes the study of sacred texts, philosophies, theologies, rituals, sacred images and spaces, and the broad cultural significance of the religious in relation to other aspects of culture. Such multi-cultural and cross-cultural studies began in the nineteenth century and have employed diverse methodologies and theories about how best to study religions. This course will examine the history of the study of religions and review selectively the contemporary debates about the various strategies for the study of religions.

4500 Religions and Orientalism

3 credit hours

Prerequisite: Prerequisite: Declared Major or Honours in Religious Studies and completion of a minimum of 60 credit hours of university courses, or permission of instructor.

The course will explore Orientalist representations of religious traditions as an objective “other”. Special focus will be given to the ways in which scholars in the humanities, religious writers, and the interpreters of sacred texts contribute to the formation of various forms of Orientalism.

4590 - 4595 Honours Seminars in Religious Studies

6 credit hours

Prerequisite: fourth-year honours status and permission of Department.

The three general areas in which the Department offers courses are noted below, together with the courses which fall into each area. Since this is only a partial list, please consult the undergraduate advisor for updates and further clarifications.

4826 - 4849 Special Topics in Religious Studies

3 credit hours

These courses will investigate in depth a specific topic or set of topics in Religious Studies. The topic will vary from year to year.

4850 – 4875 Directed Readings in Religious Studies

6 credit hours

Prerequisite: permission of Department.

These courses are organized by individual faculty members in agreement with the Department as a whole; they are designed to supplement or provide an alternative to regular courses in Religious Studies according to the special needs and interests of students. Course content can be proposed by the student.

4876 – 4899 Directed Readings in Religious Studies

3 credit hours

Prerequisite: permission of Department.

These courses are organized by individual faculty members in agreement with the Department as a whole; they are designed to supplement or provide an alternative to regular courses in Religious Studies according to the special needs and interests of students. Course content can be proposed by the student.

I. Introductory Courses:

- RELS 1210 Introduction to Religion
- RELS 1211 Introduction to Religious Experience
- RELS 1220 Introduction to Comparative Religions I
- RELS 1221 Introduction to Comparative Religions II
- RELS 1251 Religion in Contemporary Culture

II. Issues Courses:

- RELS 2330 Spirituality and Work
- RELS 2333 Women and Religion Today
- RELS 2347 Ecology and Religion
- RELS 2351 Love
- RELS 2352 Death

RELS 2343 Violence
 RELS 3316 Anthropology of Religion
 RELS 3318 Ghosts: A Cultural Approach
 RELS 3330 Spirituality in the Workplace
 RELS 3336 Creation and Evolution: The Religious Issues
 RELS 3348 Religion and Ecological Issues in the Developing World
 RELS 3349 Science and Religion
 RELS 3355 Religion and Social Issues in Canada
 RELS 3356 Religions in Film
 ANTH 3316 Anthropology of Religion
 ANTH 3366 Worldview: Anthropological Approaches

III. Traditions Courses:

A. Asian

RELS 2326 The Hindu Religious Tradition
 RELS 2327 The Buddhist Religious Tradition
 RELS 2401 Religions of China and Japan
 RELS 3010 Vietnamese Religious Traditions
 RELS 3337 Religions and Art: The East
 RELS 3359 Buddhist Paths
 RELS 3360 Engaged Buddhism

B. Christianity and Judaism

RELS 2305 Women in Christianity
 RELS 2343 Jewish Religious Tradition
 RELS 2350 Faith in Action: Religion and Social Movements
 RELS 2377 Introduction to Bible: Hebrew Scripture
 RELS 2378 Introduction to Bible: New Testament
 RELS 3303 Christian Origins
 RELS 3311 Jesus of Nazareth
 RELS 3312 Theologies of Liberation
 RELS 3328 The Catholic Church Today
 RELS 3338 Religions and the Arts: The West
 ENGL 2327 The Bible and English Literature
 ENGL 2328 The Catholic Tradition in Modern British Literature

C. Islam

RELS 2323 The Islamic Religious Tradition

RELS 3370 Introduction to the Qur'an
 RELS 3372 Islamic Culture and Civilizations
 RELS 3373 Islam in South Asia
 RELS 3374 Islam in North America since 9/11

D. OTHER

RELS 2353 New Religious Movements
 RELS 3354 Aboriginal Peoples, Religion and Justice
 RELS 3358 Religious Diversity in Canada
 CLAS 3317 Greek Sanctuaries
 CLAS 3352 Women in Antiquity I

IV. Methods Courses:

Scriptural Analysis

RELS 2377 Introduction to Bible: Hebrew Scripture
 RELS 2378 Introduction to Bible: New Testament

RELS 3370 Reading Scripture: Qur'an

Ethnography

RELS 3351 Field Research Methods

V. Seminars (4000 level Courses)

A. Issues

RELS 4100 Religion and International Development
 RELS 4387 Religious Pluralism
 RELS 4400 Comparative Religious Ethics
 RELS 4500 Religions and Orientalism
 RELS 4389 Religion and Public Life

B. Traditions

RELS 4050 Religious Traditions in Canada
 RELS 4390 Religion and Society in Atlantic Canada
 RELS 4500 Religions and Orientalism
 RELS 4200 Postcolonialism and Religions

C. Methods:

RELS 4481 Theories and Methods in the Study of Religions

Social Justice and Community Studies (SJCS)

Chairperson	V.M. Johnson
Associate Professors	V.M. Johnson, D. Leroux
Assistant Professors	B. Bunjun

Department website

<http://www.smu.ca/academics/departments/social-justice-community-studies.html>

The Department of Social Justice and Community Studies offers students and professionals a strong interdisciplinary training to promote social responsibility and the development of active citizens. Specifically, the Department fosters intersectional knowledge around issues such as gender and sexuality; Indigenous-settler relations and settler colonialism; citizenship and migration status; race and critical whiteness; urban politics and histories; material conditions and resource distribution; and social organizing and organizational theory, in order to build stronger institutional and community relationships with and between diverse Indigenous peoples, African Nova Scotians, and immigrant peoples, and historically settled white Nova Scotians and Canadians.

The Social Justice and Community Studies minor provides students in all faculties, and social justice and community engaged professionals, with the knowledge necessary to engage in problem solving and public deliberation in a range of complex social issues. Planning for a Social Justice and Community Studies major and honours program is underway.

NOTE: As of September 2018 the Department of Sociology and Criminology is officially divided into separate departments of Criminology, Social Justice and Community Studies, and Sociology. This is a result of a collegial consultation process beginning December 1, 2016 through the Academic Vice President Academic and Research, the Dean of Arts and the Department of Sociology and Criminology. Several courses that were previously Sociology and/or Criminology courses are cross-listed between the new Departments (as noted below). Be sure to check out the program offerings and requirements of these new units in their separate sections of this Academic Calendar.

Electives

Students seeking an elective may take a Social Justice and Community Studies course at the 1000 level and (with the prerequisite) 2000 level. Students who have completed the 1000 level credit hours may register for 3000 level courses in Social Justice and Community Studies to complete a degree requirement for an elective at the 3000 level.

Degree Requirements

Social Justice and Community Studies courses at the 2000 or 3000 level can satisfy a degree requirement in the Arts Faculty, the Sobey School of Business and the Faculty of Science.

Minor in Social Justice and Community Studies

To complete a minor in Social Justice and Community Studies (SJCS), a student must obtain at least twenty-four (24) credit hours in SJCS, including the following six (6) credit hours:

- SJCS 1211: Social Power Relations (prerequisite for all SJCS courses; equivalent to SOCI 1211)
- SJCS 2000: Canadian Society and Social Justice

Students must also complete 18 credit hours from the following list:

- SJCS 2100: Community Organizing
- SJCS 3220: Race, Racism and Colonialism
- SJCS 3408: Urban Sociology
- SJCS 3508: Corporate Crime
- SJCS 3608: Forms of Servitude
- SJCS 4370: Multiculturalism in Canada and Abroad
- SJCS 4432: Gender and Law
- SJCS 4570: Indigenous Politics and Settler Colonialism
- SJCS 4739: Transnational Community Organizing
- SJCS 4740: Intersectionality: Theory, Methods and Praxis

In addition, students may complete up to 6 credit hours of the following courses towards the 18 credit hours

- ENGL 2261: Postcolonial Literature: Africa, the Caribbean, and South Asia
- ENGL 2513: Introduction to Indigenous Literature

Course Descriptions

1211 Social Power Relations

3 credit hours

Students are introduced to social justice perspectives on social inequality, power relations, and resistance. Students examine theoretical concepts of power relations and topics that challenge dominant notions about society. The biases and assumptions that inform the study of power relations across gender, race, class, sexuality, Indigeneity, ability and citizenship are also considered.

2000 Canadian Society and Social Justice

3 credit hours

Prerequisites: SJCS 1211 or SOCI 1211

Students examine social justice perspectives on Canadian society and state policies past and present. Possible questions include: What does it mean to be Canadian? What are the encounters involved in how the Canadian nation and identity come to be?

2100 Community Organizing

3 credit hours

Prerequisites: SJCS 1211 or SOCI 1211

Students examine the significance, dynamics, and strategies of critical participation and awareness in community organizing efforts. Students are introduced to analytical

perspectives, practical principles, and examples in social justice organizing at the local, national, and global levels.

2810-2830 Selected Topics in Social Justice and Community Studies

3 credit hours

Prerequisites: SJCS 1211 or SOCI 1211

The subject matter of these courses will be announced from time to time. Courses cover various aspects of Social Justice and Community Studies and will be multi-disciplinary in nature. The topics to be examined are determined by the instructor and/or Department.

3220 Race, Racism, Colonialism

3 credit hours

Prerequisite: SJCS 1211 or SOCI 1210 or permission of instructor.

Students critically examine the history, social production, and ongoing impacts of race, racism and colonialism. (Formerly CRIM/SOCI 3320)

3408 Urban Sociology

3 credit hours

Prerequisite: SJCS 1211 or SOCI 1210 or permission of the instructor

Students are introduced to the sociological study of the city, with particular attention paid to how human beings produce and interact in cities through unequal power relations, and in historically specific ways. (Formerly SOCI 3408)

3508 Corporate Crime

3 credit hours

Prerequisite: SJCS 1211 or SOCI 1210 or permission of the instructor

Students examine and analyze the nature, scope and impact of corporate crime, the principal organizational, social, political, and economic factors in the definition and commission of such crimes, and the ways in which governments and legal systems respond to the problems. (Formerly CRIM/SOCI 3508)

3608 Forms of Servitude [WMST]

3 credit hours

Prerequisites: SJCS 1211 or SOCI 1211 or permission of the instructor

Students explore different forms of servitude at the intersections of imperialism, racialization, globalization, labour, and citizenship. Students analyze a combination of texts that largely focus on Canadian contexts, but also include texts set in other countries. Possible topics could include chattel slavery, indentured labour, and migrant labour.

3810-3830 Special Topics in Social Justice and Community Studies

3 credit hours

Prerequisites: SJCS 1211 or SOCI 1211

Students examine a selection of mid-level topics directly related to social justice and community studies.

4370 Multiculturalism in Canada and Abroad

3 credit hours

Prerequisite: SJCS 2000 and 2100 or SOCI 3012 or permission of instructor

Students examine the historical and social frameworks for Canadian approaches to multiculturalism. Particular attention is given to the place of refugee claimants, refugees, temporary foreign workers, and “illegal” migrants in Canadian society. Students will work on a project with a community organization.

(Formerly SOCI 4370)

4432 Gender and Law [WMST 4432]

3 credit hours

Prerequisite: SJCS 2000 or SOCI/CRIM 3010, 3100, 3102 and SOCI 3012 or CRIM 3011 or permission of the instructor

Students examine how the social construction of femininity and masculinity intersect with other forms of identity and power to shape law. Students investigate the creation, interpretation and enforcement of law.

(Formerly CRIM/SOCI 4432)

4570 Indigenous Politics and Settler Colonialism

3 credit hours

Prerequisite: SJCS 2000 or SOCI/CRIM 3220 or permission of the instructor

Students examine the history and ongoing social impacts of settler colonialism in Canada, with a particular focus on Mi'kma'ki. Students explore a variety of forms of contemporary indigenous resurgence and resistance, with a particular focus on emerging indigenist scholarship on the topic.

4739 Transnational Community Organizing [WGST 6739]

3 credit hours

Prerequisites: SJCS 2000 and 2100 or permission from the instructor

Students critically examine practical applications of concepts, theories, methods, and strategies of social justice organizing at the transnational level. This advanced course brings forth social justice organizing at the macro (international/national/regional) and micro (institutions/communities) levels while exploring the tensions and negotiations of organizing efforts.

4740 Intersectionality: Theory, Methods and Praxis [WGST 6740]

3 credit hours

Prerequisites: SJCS 2000 or permission of the instructor

Students develop the concept of intersectionality in relation to how structures of power and domination – patriarchy, colonialism, and capitalism – are interconnected and interacting. Students learn how to engage responsibly with intersectionality as a paradigm, an analytic tool, and a theoretical framework.

4810-4830 Special Topics in Social Justice and Community Studies

3 credit hours

Prerequisites: SJCS 1211 or SOCI 1211, SJCS 2000 or permission of the instructor

Students examine a selection of upper-level topics directly related to social justice and community studies

Sociology (SOCI)

Chairperson	R. Hart
Professors	E. Tastsoglou, M. VanderPlaat
Associate Professors	R. Hart, A. MacNevin, D. Stefanovic, A. Westhaver
Adjunct Professors	B. Cottrell, L. Liebenberg
Professor Emerita	L. Christiansen-Ruffman

Department Mission

The Department offers programs that provide students with a strong undergraduate experience in Sociology. Majors and honours programs are offered in each field. Courses are also mounted that support such other academic programs as those in Asian Studies, Atlantic Canada Studies, International Development Studies, Linguistics, and Women's Studies. For details on graduate programs, refer to the Graduate Academic Calendar.

NOTE: As of September 2018 the Department of Sociology and Criminology is officially divided into separate departments of Criminology, Social Justice and Community Studies, and Sociology. This is a result of a collegial consultation process beginning December 1, 2016 through the Academic Vice President Academic and Research, the Dean of Arts and the Department of Sociology and Criminology. Be sure to check out the program offerings and requirements of these new units in their separate sections of this Academic Calendar.

Major Program

For admission to the program, students must have completed SOCI 1210 with a minimum grade of C.

The major in Sociology requires the completion of the following thirty-six (36) credit hours:

- SOCI 1210 Introductory Sociology (minimum grade of C)
- SOCI 2124 Social Inequality & Justice
- SOCI 3010 Classical Theory
- SOCI 3012 Contemporary Sociological Theory
- SOCI 3100 Qualitative Research Methods
- SOCI 3102 Quantitative Research Methods
- Twelve (12) credit hours in Sociology at the 3000 level or above
- Six (6) credit hours seminar in Sociology at the 4000 level

FOR STUDENTS COMPLETING A DOUBLE MAJOR IN SOCIOLOGY AND CRIMINOLOGY, ONLY SIX (6) CREDIT HOURS OF CROSS-LISTED COURSES CAN BE DOUBLE COUNTED.

Suggested Schedule

The following schedule is suggested for students majoring in Sociology:

Year 1:

- ENGL 1205 Introduction to Literature
- 9 credit hours of introductory courses in the following humanities (except PHIL 1200): Classics; History; Religious Studies; Modern Languages courses on

literature and culture (a maximum of 6 credit hours can be counted from any one area).

- SOCI 1210 Introductory Sociology (minimum grade of C)
- Three (3) credit hours in a social science
- Six (6) credit hours from a social science other than Sociology.
- Six (6) credit hours of from one or two of the following: PHIL 1200 Critical Thinking, Mathematics, a language other than English, or a science other than Psychology.

Year 2:

-
- SOCI 2124 Social Inequality and Justice
- Six (6) credit hours in SOCI at the 3000 level
- Eighteen (18) credit hours in Arts at the 2000 level or above
- Three (3) credit hours of electives

Year 3:

- SOCI 3010 Classical Theory
- SOCI 3012 Contemporary Sociological Theory
- SOCI 3100 Qualitative Research Methods
- SOCI 3102 Quantitative Research Methods
- Twelve (12) credit hours in Arts at the 2000 level or above
- Six (6) credit hours of electives

Year 4:

- Six (6) credit hours SOCI at the 4000 level – note that directed readings courses in Sociology do not satisfy this requirement
- Six (6) credit hours SOCI at the 3000 level
- Three (3) credit hours in Arts at the 2000 level or above
- Fifteen (15) credit hours of electives

Honours Program

This is a selective program. Applicants for admission must:

- have completed at least 60 credit hours;
- have a cumulative GPA of at least 3.00 out of 4.3;
- have a cumulative GPA in Sociology courses of 3.30 out of 4.3;
- have a faculty member's written agreement to serve as a supervisor for the honours thesis, SOCI 4601.

In exceptional circumstances, the Department may consider applicants who do not have a CGPA of 3.30 in Sociology courses (but who have a 3.00 overall).

The deadline for application is 1 April of the year before students wish to begin the honours program.

For honours in Sociology, students must complete sixty (60) credit hours as follows:

- Major Core Courses:
 - SOCI 1210 Introductory Sociology (minimum grade of C)
 - SOCI 2124 Social Inequality & Justice
 - SOCI 3010 Classical Theory
 - SOCI 3012 Contemporary Sociological Theory
 - SOCI 3100 Qualitative Research Methods
 - SOCI 3102 Quantitative Research Methods

- b. Honours Core Courses:
- SOCI 4501 Advanced Theory
 - SOCI 4502 Advanced Research Methods
 - SOCI 4600 Honours Thesis Research Preparation
 - SOCI 4601 Honours Thesis Writing
- c. Eighteen (18) credit hours in Sociology at the 3000 level or above
- d. Twelve (12) credit hours in Sociology at the 4000 level

To graduate, student must maintain a cumulative GPA of 3.30 in SOCI courses as well as earn a grade of B+ (3.30) in SOCI 4601.

Concentration in Sociology

Students in a ninety (90) credit hour B.A. program with a concentration in Sociology are required to complete twenty-four (24) Sociology credit hours with a minimum grade point average of 2.00. Courses cross-listed with Criminology may not be double counted if students choose to complete a double concentration in Sociology and Criminology. Required courses include:

- SOCI 1210 Introductory Sociology (minimum grade of C)
- SOCI 2124 Social Inequality & Justice
- 18 additional credit hours in Sociology

Minor Program

The minor in Sociology requires twenty-four (24) credit hours in Sociology completed with a minimum grade point average of C. Required courses include:

- SOCI 1210 Introductory Sociology (minimum grade of C)
- SOCI 2124 Social Inequality & Justice
- An additional 18 credit hours in SOCI at the 2000, 3000, or 4000-level.

Note: For students enrolled in the minor program in Sociology and the major program in Criminology, only 6 credit hours of cross-listed courses may be double counted to meet program requirements.

Course Descriptions

1210 Introductory Sociology

3 credit hours

This course is intended to give a basic introduction to the discipline. It will examine the sociological imagination which understands human life as fundamentally explained by our membership in social groups. Particular attention will be given to the basic theories, concepts and methods through which this view is explored.

2124 Social Inequality and Justice

3 credit hours

Prerequisite: SOCI 1210

Students will examine major structures of social inequality and how these structures intersect in the lives of individuals and groups. Patterns in opportunity, disadvantage, regulation, and access to justice emerge from those structures.

3010 Classical Theory [CRIM 3010]

3 credit hours

Prerequisite: SOCI 1210

This course introduces students to the major themes of classical Sociological and Criminological theory. Students will examine key debates from the 18th and 19th century which have influenced contemporary Sociological and Criminological Theory.

Note: Students may not receive credit for CRIM 3010 if they have already received credit for CRIM 2300 or SOCI 2362.

3012 Contemporary Sociological Theory

3 credit hours

Prerequisite: SOCI/CRIM 3010

A critical examination of the major themes of social analysis in the 20th and 21st century, with particular emphasis on current theoretical issues and differences in theoretical approaches to problems in sociological analysis.

Note: Students who have completed SOCI 2363 will not receive credit for this course.

3100 Qualitative Research Methods [CRIM 3100]

3 credit hours

Prerequisite: SOCI 1210

This course introduces students to sociological and criminological research that uses qualitative methods. The course will examine qualitative methodology, research strategies, designs and methods of qualitative data collection and analysis, including the contributions of feminist scholarship. Students will also learn different ways of interpreting qualitative data. Approaches covered in this class may include grounded theory, participatory action research, historical and textual methods, and participant-observation/ethnography, among others.
Class 3 hrs and Lab 75 min/week

Note: Students may not receive credit for CRIM 3100 if they have already received credit for CRIM 2302 or SOCI 2365.

3102 Quantitative Research Methods [CRIM 3102]

3 credit hours

Prerequisite: SOCI 1210

This course introduces students to quantitative methodology, research strategies, designs, methods of quantitative data collection and statistical analysis. A key feature of this class will involve interpreting and critiquing statistical data, which is a major source of information for sociologists and criminologists.

Class 3 hrs and Lab 75 min/week

Note: Students may not receive credit for CRIM 3100 if they have already received credit for CRIM 2302 or SOCI 2365.

3306 Sociology of Education [EDUC 3307]

3 credit hours
Prerequisite: SOCI 1210

A study of major sociological approaches (both conceptual and methodological) to education in different societies, with special emphasis on Canadian society. The course will focus on topics such as relationship between family, education and society; education and inequality; the social organization of knowledge; education and social change; the politics of education.

3336 Sociology of Work

3 credit hours
Prerequisite: SOCI 1210

This course is designed to help students cultivate a sociological imagination for one of the most important parts of our lives: work. Following an introduction to the concepts and issues that relate to work, labour and employment, we will explore the nature of work in other cultures comparatively and historically. The course then focuses on the nature of work in modern society. This is followed with a detailed examination of three factors that shape the experience of work in people's lives: class, gender and race.

3339 The Sociology of Language [LING 2339]

3 credit hours
Prerequisite: SOCI 1210

This course provides an introduction to the major areas of the sociology of language. Special attention is paid to language and social relations in Canada, particularly to the present-day situation. Standard topics in the sociology of language are treated, including language and social interaction; the use of language by social classes, men and women, ethnic groups and regions; dialects and social groups, bilingualism and multilingualism; language and nationalism; language maintenance and language shift; and language planning.

3343 Society as Drama

3 credit hours
Prerequisite: SOCI 1210

This course explores the features of social life that depend on the human ability to imagine ourselves as others see us. Drawing specifically from the theoretical perspectives of George Herbert Mead and Erving Goffman, this course investigates symbolic interactionist approaches to the (re)construction of the self and the self-society relationship as a process of symbolic communications between social actors. Central to this course is the notion that as social actors we attempt to shape the impressions that others have of us by projecting images of ourselves that best serve our own objectives. In so doing, we both define the social situation and create appropriate expectations of ourselves and others.

3376 Atlantic Canadian Film & TV
[ACST 3376/CRIM 3376/WMST3376]

3 credit hours
Prerequisites: SOC 1210

Students examine the way that Atlantic Canada and Atlantic Canadians are constituted in and through mediated discourses, such as dramatic film and television series.

3386 Sociology of Developing Societies [IDST 3386]

3 credit hours
Prerequisite: SOCI 1210

This course examines the conditions of economic and social development in the Third World. The role of colonial empires in the creation of these conditions and of the world system in maintaining them will be scrutinized. Problems discussed will include trade relations, foreign aid, land distribution, industrialization, class structures, the role of the estate, and the position of women. Illustrative case studies on these problems will range across different countries in the Third World (Africa, Latin America and Asia).

3387 Women and Development [WMST 3387]

3 credit hours
Prerequisite: SOCI 1210

This course will examine the role of women in development. It will examine the changing structure of the division of labour by gender in different international, regional and community contexts, and the interaction between the economics and politics of class and gender in different societies at different levels of development. This course will also address issues such as: the incorporation of subsistence economies into modern market economies; the establishment of labour-intensive multinational industries, particularly those drawing on female labour; the relationship between the household and the formal and informal economies and patterns of female migration; and the role of women in the transition from rural to urban/industrial worlds.

3423 Ethnic Conflict

3 credit hours
Prerequisite: SOCI 1210

Ethnic conflict is a social force that is shaping our lives, society, and world history. We will use sociological theories and research to tackle some of the current debates and controversies related to ethnic conflicts, such as opposition to Canadian multiculturalism, Aboriginal protests in Canada, the rise of Islamophobia, the resurgence of the Far Right in Europe, attitudes towards and prevention of Islamic terrorism, and the impact of globalization on ethnic conflict escalation

3431 Women, Migration and Identity

3 credit hours
Prerequisite: SOCI 1210

This course will explore how immigration was an essential part of building the Canadian nation, but women's experiences, struggles and contributions in this process have been largely neglected in mainstream historical accounts. We will examine the issues shaping women's identities, such as acculturation; problems with family and community; economic difficulties and job discrimination; and the role race, ethnicity, class, region and generation play in shaping women's diverse realities.

3435 Gender and Sex in 21st Century Media [WMST 3435/CRIM 3435]

3 credit hours

Prerequisites: SOCI 1211 (As per usual for 3000 – Arts / SOCI courses)

Students examine recent representations of gender and sexuality in a variety of contemporary mediated forms such as television, literature, and social media.

3505 Prisons and Punishment [CRIM 3505]

3 credit hours

Prerequisite: SOCI 1210

Drawing upon literature from the sociology of punishment, this course situates Western penal regimes within historically-specific economic, socio-political, and cultural frameworks. The emergence and re-emergence of a broad range of practices for punishing and regulating ‘problem populations’ will be a central theme for the course.

3507 Policing and Society [CRIM 3507]

3 credit hours

Prerequisite: SOCI 1210

In this course students will explore issues related to the policing of modern societies. Topics will include the exercise of police powers and discretion, police misconduct, and policing in a multicultural society.

3509 Victims and Criminal Justice [CRIM 3509]

3 credit hours

Prerequisite: SOCI 1210

In criminal justice systems, the role of the victim has expanded considerably. It is not clear if these developments have resulted in better treatment of victims or more justice in broader ways. To explore these issues students will learn about the historic roots of “victimology”, and critical theoretical perspectives on the social construction of victims and their needs and rights.

3510 Criminal Law [CRIM 3510]

3 credit hours

Prerequisite: SOCI 1210

This course is designed to familiarize students with Canadian criminal law. The course will focus on topics such as the history, nature and functions of criminal law, its elements and role in a democratic society, exemptions from criminal responsibility, its principles and procedures, and its administration and enforcement.

3511 Youth Crime and Moral Panics [CRIM 3511]

3 credit hours

Prerequisite: SOCI 1210

This course takes a historical/comparative approach to the study of youth crime in Canada. It examines changing definitions and perceptions of youth crime, contemporary crime patterns, correlates and their explanations. The course emphasizes a critical approach to understanding youth crime statistics and their changes over the last 100 years. The

overall objective of the course is to develop in students a critical appreciation of moral panics about youth crime.

3518 State, Crime, and Power in Developing Countries [CRIM 3518]

3 credit hours

Prerequisite: SOCI 1210

This course is an interdisciplinary exercise designed for students in Criminology, International Development Studies, Political Science, and Sociology. Students will: (a) learn about the colonial origins of crime in Latin America; (b) be introduced to the basics of Latin American criminological thinking such as Liberation Criminology; (c) explore the various dimensions of criminal activity (street, organized, state and corporate) in developing countries; and (d) study the detrimental effects of crime, corruption and abuse of power on the societies of the South.

3519 Terrorism: Perspective and Policy [CRIM 3519]

3 credit hours

Prerequisites: SOCI 1210

This course is a comprehensive examination of how terrorism movements have comparatively developed. This includes an analysis of methods, typical motivations, and outcomes. Academic studies on terrorism and counter-terrorism are contrasted with responses to terrorism.

3526 Organized Crime [CRIM 3526]

3 credit hours

Prerequisite: SOCI 1210

This course provides an introduction to the subject of organized crime and its control in North America. The course applies sociological, criminological, and economic theory to understand the rise and proliferation of criminal organizations and organized crime activities. It also explores dominant organized crime genres, activities, and recent trends. The course also explores strategies and laws to combat organized crime.

3546 Crime and the Media [CRIM 3546]

3 credit hours

Prerequisite: SOCI 1210

This course focuses on the depiction of crime in various media of mass communication. Areas of study include corporate crime, violent crime, gangs, organized crime and terrorism. This course also examines how gender, race and class are related to the way crime is depicted in the mass media

3610 Practicum in Social Development [CRIM 3610]

3 credit hours

Students explore factors that put children and youth at risk of future criminal and anti-social behavior. Students gain practical experience by tutoring youths from a high risk environment. In-class and online lectures provide a theoretical framework and training.

3800 – 3825 Special Topics in Criminology [CRIM 3800 – 3825]

6 credit hours
Prerequisites: SOCI 1210

These courses are designed to enable a student to examine particular criminological issues in detail. They will be offered according to faculty availability and expertise.

3826 – 3849 Selected Issues in Criminology [CRIM 3826-3849]

3 credit hours
Prerequisites: SOCI 1210

These courses are designed to enable a student to examine a particular criminological issue in detail.

3876 – 3899 Contemporary Issues in Sociology

3 credit hours
Prerequisite: SOCI 1210

The course will provide an opportunity for students to study contemporary substantive issues in considerable depth and detail.

4210 Forced Migration and Refugees [CRIM 4210]

3 credit hours
Prerequisites: SOCI/CRIM 3010, SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

This course will critically examine the key determinants, processes, and consequences of internal displacement and forced migration across borders through the analysis of case studies from around the world. Topics in the course will include, selectively, contemporary refugee issues, gender violence in conflict zones, resettlement, repatriation, refugees and development, asylum-seekers, and the Canadian and UN refugee protection systems and various international conventions.

4224 Inequality, Suffering, and Resistance

3 credit hours
Prerequisites: SOCI/CRIM 3010, 3100, 3102 and either SOCI 3012 or CRIM 3011

Students examine the social, cultural, political, and environmental, moral consequences of contemporary economic conditions in Canada and around the world. Particular attention is paid to the history of social inequality as well as to the many ways people cope with and resist inequitable conditions.

4327 Seminar in Crime and Media [WMST 4327/CRIM 4327]

3 credit hours
Prerequisites: SOC I210

Students examine the way that crime, criminality, justice, and resistance are constituted in and through mediated discourses in mediums such as film and television.

4382 Gender and International Migration [WMST 4482/IDST 4452]

3 credit hours
Prerequisites: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

This is a course on the theory and practice of international migration taking an explicitly gendered perspective. It discusses the conceptual and theoretical frameworks on migration and gender and migration; the history of selected migration movements with a focus on the role of women; women in the migratory process, employment and family issues; the impact/consequences of international migration on development; contemporary migration policies; forced migration and refugee issues; gender and trans-nationalism.

4386 Queer Theory [WMST 4386]

3 credit hours
Prerequisites: SOC 1210

Students survey some of the key histories, questions, and debates in the rapidly changing area of critical gender and sexuality studies. The primary objective is to help students interrogate how theories of gender and sexuality disrupt and problematize the constitutions of ourselves and others as gendered and sexually oriented subjects.

4420 Genocide [CRIM 4420]

3 credit hours
Prerequisite: SOCI/CRIM 3010, 3100, 3102 and SOCI 3012 or CRIM 3011

Genocide as a sociological and criminological phenomenon prevalent through history is examined. Different types of genocide are identified, as well as the many challenges in responding to it.

4421 War as Crime [CRIM 4421]

3 credit hours
Prerequisite: CRIM/SOCI 3010, 3100, 3102 and (SOCI 3012 or CRIM 3011)

The 20th century as seen two world wars and numerous other conflicts. The so-called 'Cold War' turned hot in many parts of the developing world and cost the lives of tens of millions and maimed countless others. With the new millennium, novel forms of warfare and military technologies have been introduced which again largely victimize the societies of the 'Global South'. Students will analyze the criminal dimensions and true costs of military conflict.

4422 Women, Gender and Development: Theory and Method [WMST 4422]

3 credit hours
Prerequisite: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011.

This seminar will examine the role of women and development in the Third World. It will discuss the interrelationship of various development and feminist theories; methodological approaches to the study of women and development will also be examined. This course will provide students with a conceptual overview and practical tools for understanding the problems faced by women in developing countries.

4423 Women, Gender and Development: Policy and Practice [WMST 4423]

3 credit hours

Prerequisite: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

This seminar will examine case studies of the role of women in the development process in various Third World countries. It will provide an analysis of the gender dimensions of programs and policies that affect women in different international, regional and community contexts. Case studies will focus on a number of specific issues such as work, education, health and empowerment. These will vary from year to year.

4427 Sociology of Tourism

3 credit hours

Prerequisites: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

Tourism comprises the largest international economic activity of our time. But is it a blessing or a curse? Utilizing a range of sociological perspectives, students explore the tourist experience. Topics include, typical types of mass tourism and diverse alternative tourisms.

4501 Advanced Theory [CRIM 4501]

3 credit hours

Prerequisite: enrolment in honours program.

Presentation of various topics of interest to advanced criminology and sociology students. Attention is given to the critical theoretical accomplishments of various writers, including feminist scholars. From time to time, depending on student interest and faculty availability, this course will consider particular theorists and such matters as constructing social theories, traditions of theoretical writing, and new directions and problems in the field.

Note: Students are advised to enrol in SOCI 4495 - 4496 in years when CRIM 4501 is not offered.

4502 Advanced Research Methodology [CRIM 4502]

3 credit hours

Prerequisite: enrolment in honours program.

Students examine a range of quantitative and qualitative research methods in areas reflecting the interests of students in the class. Students explore the strengths and weaknesses of different approaches of data collection and analysis used in sociology and criminology. Topics covered may include survey research, experimental design, interview techniques, field research, historical and documentary analysis.

4512 Issues in Juvenile Justice [CRIM 4512]

3 credit hours

Prerequisites: CRIM/SOCI 3010, 3100, 3102, (SOCI 3012 or CRIM 3011), and CRIM/SOCI 3512

This course explores contemporary issues associated with the concept, philosophy and practice of juvenile justice. Students will examine children and youth as theoretical constructs in the context of the discourse surrounding children's rights and governance of the young. The course aims to develop students' critical understanding of the politics and philosophy of youth justice in postmodern society.

4515 Drugs and Power in Latin America [CRIM 4515]

3 credit hours

Prerequisite: CRIM/SOCI 3010, 3100, 3102 and (SOCI 3012 or CRIM 3011)

Students in this course will become familiar with the student with the complexity of Latin American Organized Crime. We will examine the historical and cultural dimensions of the drug trade, the evolution and role of specific criminal groups, as well as the drug war in the Americas.

4548 Feminist Analysis [WMST 4548]

3 credit hours

Prerequisites: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

Using a range of feminist theories and methodologies, students in this course explore issues that arise when studying women and gender relationships. Students will pay particular attention to the ways in which research can replicate and reinforce sex and gender biases.

4600 Honours Thesis Research Preparation [CRIM 4600]

3 credit hours

Prerequisite: enrolment in honours program.

This course is restricted to students who have been accepted into the honours program. Its purpose is to aid students in the preparation of their honours thesis through workshops related to proposals, research and writing.

4601 Honours Thesis Writing [CRIM 4601]

3 credit hours

Prerequisite: Completion of SOCI/CRIM 4600

Students will work closely with their supervisor to complete their thesis. To obtain an honours degree in sociology and criminology, the student must earn a grade of B+ (3.30) in CRIM 4601

4610 Practicum in Community Development [CRIM 4610]

3 credit hours

Prerequisite: SOCI/CRIM 3610 Practicum in Social Development

Students will tutor youth from a socially disadvantaged neighborhood and research and prepare a development plan for that community. A theoretical framework and training for this field work is provided by in-class and online lectures and readings.

4620 Immigration Law and Policy Practicum [CRIM 4620]

3 credit hours

Prerequisites: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011 OR 75 credit hours.

4800-4825 Selected Topics

6 credit hours

Prerequisites: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

A seminar course which examines questions within an area of specialization and enables a student to study a particular sociological issue in detail.

A seminar course which examines questions within an area of specialization and enables a student to study a particular sociological issue in detail.

4826 – 4849 Selected Topics

3 credit hours

Prerequisites: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

Spanish (SPAN)

Chairperson	M. McCallum, Modern Languages and Classics
Associate Professor	A. Spires
Assistant Professor	A. Arteaga

Courses and programs in Spanish are offered by the Department of Modern Languages and Classics

Department Policy - Modern Languages and Classics

1. Enrollment in some language courses involves the following formal placement procedures.

All students seeking entry into language courses who have not previously taken a language course at Saint Mary's University must complete and return the Language Profile Form to the Department of Modern Languages and Classics.

Based on the information provided in the Language Profile Form, students may receive notification from the Department to appear for an oral interview and/or a written placement test at a designated time.

The Department of Modern Languages determines the appropriate course placement for each student

- (i) Permission to register or remain in a particular language course can be refused if the Department judges that the student's knowledge exceeds the level for that course.
- (ii) Native speakers are not eligible to receive advanced credit for language courses.
- (iii) Completion of Advanced Standing (transfer) courses does not exempt a student from taking the placement test.

2. The student's eligibility to enroll in language, culture, and literature courses, and in specific sections of those courses, is determined by the Chairperson in consultation with the instructor in light of the student's ability level in the language concerned, previous course work completed at university or elsewhere, and overall size of the course or section of a course. In matters of placement, the decision of the Chairperson is final.

3. In order to ensure the academic integrity in language courses, especially at the lower levels of instruction, the Department of Modern Languages and Classics does not allow native or near-native speakers of a particular target language to enroll in courses at the 2000 level or lower.

Students who misrepresent their knowledge of any given language by providing inaccurate or incomplete information about their linguistic educational history will be subject to disciplinary action as laid out in Academic Regulation 19.

4. The Department of Modern Languages and Classics supports a policy of regular class attendance by students.

Frequent, unexplained absences from class will result in a lowering of the final grade in a manner to be determined by each faculty member.

5. Students should note that courses in literature and/or culture fulfill the BA Humanities requirement 3(c) but do not fulfill the 3(b) requirement. The courses designated with an * in front of the number satisfy the 3(c) requirement.

Programs in Spanish and Hispanic Culture

The following programs are available in the area of Spanish and Hispanic Culture: a major, a minor, a concentration, a Certificate in Spanish Language and Hispanic Culture and a Minor in Latin American Studies.

Major in Spanish and Hispanic Culture

A major in Spanish and Hispanic Culture consists of thirty-six (36) credit hours:

- 12 credit hours at any level
- 12 credit hours at the 2000-level and above, and
- 12 credit hours at the 3000-level and above.

Courses counting towards the major are normally chosen from among the SPAN courses in language, literature, culture. After consultation with the Spanish Advisor or the Chairperson of Modern Languages and Classics, these can be supplemented [to a maximum of twelve (12) credit hours] by courses from other disciplines whose principal subjects are the arts, history or current reality of Spain and Spanish-speaking Latin America.

Concentration in Spanish

To obtain a concentration in Spanish in partial fulfillment of the B.A. General Degree (i.e. one with a Double Arts Concentration and a minimum of ninety (90) credit hours), a minimum of twenty-four (24) credit hours in Spanish is required. At most 6 credit hours can be at the 1000 level. Also, the minimum grade point average is 2.00.

Minor in Spanish and Hispanic Culture

A minor in Spanish and Hispanic Culture consists of twenty-four (24) credit hours, with at least fifteen (15) credit-hours at the 2000-level or above. A minimum cumulative grade point average of 2.00 is required for courses in the minor program.

Minor in Latin American Studies

Students majoring in a discipline other than Spanish may obtain a minor in Latin American Studies by completing the equivalent of twenty-four (24) credit hours approved for the program. These must include:

- a) SPAN 1000 Introduction to Latin American Studies
- b) SPAN 1100 Introduction to the Spanish Language
- c) HIST 1262 Introduction to Latin American History
- d) And twelve (12) other credit hours with a focus on Latin America in at least two different disciplines taken from the list below:

CRIM 4515, HIST 2250, HIST 2251, HIST 3480, HIST 4530, IDST 4463, SPAN 3310, SPAN 3312, SPAN 3320, SPAN 4400 and other courses approved by the Program Advisor

Students without prior knowledge of Spanish will need the prerequisite 6 credit hours of SPAN 1100, or the equivalent. Students with beginner-level knowledge of Spanish can receive advanced placement into SPAN 2204/2205. Students with intermediate-level knowledge or higher are not eligible to enroll in SPAN 2204 or 2205, but will be required to substitute an additional six (6) credits decided in consultation with the program Advisor.

Certificate in Spanish and Hispanic Culture (Cert. H.C.)

The certificate program in Spanish Language and Hispanic Culture is designed to provide linguistic and cultural knowledge to persons interested in studying and/or working in a Spanish-speaking country. It consists of twenty-four (24) credit hours and is intended for undergraduate students and persons already holding degrees in any discipline.

Admission

Admission to the certificate program requires a formal application for admission and the official approval of the Spanish Advisor. Application forms are available from the Registrar. Students majoring in Spanish at Saint Mary's University are not eligible for this program. Eighteen (18) of the twenty-four (24) credit hours must be completed at Saint Mary's.

Program Courses

The program consists of twelve (12) required credit hours in language, SPAN 1100 and/or 2204, 2205, 2206, 3303, 3306 and/or and a number of optional credit hours. These optional credit hours must be at the 3000 level or above and will be chosen from the following courses:

SPAN 3310	Latin American Culture
SPAN 3312	Introduction to Latin American Literature
SPAN 3313	20th Century Latin American Literature
SPAN 3314	Development and Dystopias in Latin America
SPAN 3320	Latin American Travel Literature
SPAN 4400	Postraumatic Literature in Latin America

HIST 4530 Forced and Free Migration in Latin America

Other courses are possible, subject to the approval of the Coordinator for Spanish.

Requirements for Graduation

A minimum cumulative grade point average of 2.00 in this certificate program is required. Students who have completed all the courses without being officially admitted to the program will not be accredited.

Course Descriptions

1000 Introduction to Latin American Studies

3 credit hours

This course is an introduction to the peoples and cultures of Latin America. Topics include pre-Columbian civilizations, conquest and colonization, ethnicity, economics, politics, migration, urbanization, revolution, the environment, and the arts. This course will be conducted in English.

1100 Introduction to the Spanish Language

6 credit hours

Designed to offer a firm initial competency in speaking and writing Spanish. This course requires regular attendance and a willingness to participate.

2204 Intermediate Spanish I

3 credit hours

Prerequisite: SPAN 1100 with a minimum grade of C (or equivalent).

This course is a continuation of elementary Spanish, with emphasis on comprehension, conversation, reading, and writing.

2205 Intermediate Spanish II

3 credit hours

Prerequisite: SPAN 2204 with a minimum grade of C (or equivalent).

This course is a continuation of Intermediate Spanish I, SPAN 2204.

2206 Intermediate Spanish Communication Skills

3 credit hours

Prerequisite: SPAN 1100 with a minimum grade of C. Concurrent enrollment in SPAN 2204 and/or SPAN 2205 is strongly recommended.

This course builds on basic language skills acquired in previous study to enhance the student's ability to communicate in Spanish. Students will practice how to structure and manage conversations at an intermediate level in order to increase their oral proficiency in the language. Thorough advanced preparation is required for each class, where oral activities predominate.

3303 Advanced Oral and Written Spanish I

3 credit hours

Prerequisite: SPAN 2204 and 2205 with a minimum grade of C.

This course is designed to build upon and refine the students' ability to write and to speak effectively in Spanish.

3306 Advanced Oral and Written Spanish II

3 credit hours

Prerequisite: SPAN 3303.

This course is a continuation of Advanced Oral and Written Spanish I, SPAN 3303.

3307 Advanced Spanish Conversation Through Film

3 credit hours

Prerequisite: SPAN 2204 and 2205 with a minimum grade of C

Designed for students who are learning Spanish as a second language, this course uses current Spanish-language films produced in Latin America and Spain as a springboard for in-class conversation about Hispanic culture, while also providing a review of grammatical structures at the advanced level. This course is taught entirely in Spanish.

3309 Intro to Spanish Translation

3 credit hours

Prerequisites: SPAN 2205

Taught in Spanish, this course is an introduction to the practice of both Spanish to English and English to Spanish translation. Emphasis is on translating general material from the media, social sciences and the humanities with a focus on specific grammar topics and the acquisition of new vocabulary.

***3310 Latin America Culture**

3 credit hours

Prerequisite: SPAN 2204 and 2205 with a minimum grade of C.

This course introduces a broad range of cultural and artistic manifestations of Latin America, both past and present. Topics may include indigenous cultures in the Americas, the importance of European culture to the New World, and the effort to preserve a distinct Latin American culture. The course will be conducted entirely in Spanish.

3312 Introduction to Latin American Literature

3 credit hours

Prerequisite: 6 credit hours in Spanish at the 2000-level or equivalent, with a minimum grade of C.

Designed for students who are learning Spanish as a second language, this course provides an overview of Latin American literature across a range of possible genres: narrative, poetry, theatre, and the essay. In addition to introducing students to the dynamics of these various forms of literary expression, this course uses literary texts as windows for looking into their historical backdrop, and the social, political, and cultural issues that they raise. This course is conducted entirely in Spanish.

3313 20th Century Latin American Literature

3 credit hours

Prerequisite: Any 2000-level or above course about Latin America

A study of 19th and 20th Century major works in Modern Latin American literature. Topics may include: Hispanic modernismo, the avant-garde movements of the 1920s, the Hispanic American neo-baroque and the Latin American Boom. Close analysis of texts by Dario, Rulfo, Paz, Fuentes, Carpentier, García Marques, Vargas Llosa, Borges, Machado de Asis, and others. Consideration will be given to historical context and contemporary ideological currents. The course will be conducted in English.

3314 Development and Dystopias in Latin America

3 credit hours

This course is taught in English. Students examine the dystopian literature that arises as a voice of social protest of development issues in Latin America. Issues include: dictatorship in the Southern Cone, neoliberalism in Bolivia, the Cuban revolution, NAFTA, the environment, and the Mexican border.

3320 Latin American Travel Literature

3 credit hours

Prerequisite: Any 2000-level or above course in Latin America.

This course aims to introduce students to Latin American travel literature and raises questions about nature, identity and culture. We will focus on selected chronicles of 16th century Spanish missionaries, the accounts of 19th century European scientific explorers and contemporary Latin American authors whose narratives focus on travel. The course will be conducted in English.

3330 Diablos and Fiestas in Latin American Folklore

3 credit hours

Prerequisites: 9 credit hours

This course is taught in English. Students explore the theory and practice of folklore in Latin America and examine issues where ethnicity, religion, postcolonialism, cultural identities, popular culture, traditional music, food, fiestas and carnivals encounter a common ground. With ethnographical and literary approaches, the scope of analysis will focus on the oral culture and the literature produced in Latin America's folklore traditions

4400 Postraumatic Literature in Latin America

3 credit hours

Prerequisite: A minimum of 3 credit hours in 2000 level or above courses in Spanish or in courses that count toward the minor in Latin American Studies.

Students analyze the literature produced after incidence of political and social violence in Latin America during the 20th and 21st centuries, including dictatorships, the Colombian five decades conflict, and Mexico's narco war. Students explore different literary genres such as memoirs, testimony and fiction among some of the most influential Latin American authors. This course is conducted in English.

4876 – 4899 Independent (Directed) Study

3 credit hours

Prerequisite: permission of instructor.

A tutorial course open to students who wish to study a particular topic, subject, or author largely through independent reading and research. Registration in the course is made after consultation with the appropriate member of the Department, who will organize the program of studies

Women Studies (WMST)

Courses in Women's Studies are administered through the Department of Sociology on a cross-listed basis with a number of departments in the Faculty of Arts. Students interested in pursuing their degrees with a focus on Women's Studies courses are advised to choose courses in consultation with both the Chair of the Department of Sociology and their own department's Academic Advisors.

Courses in Women's Studies lead to a fuller understanding of how gender and intersecting variables of power shape individuals and groups, cultures, ways of knowing, and struggles for social justice and change. This involves scrutinizing not just how gender shapes and has shaped everyday practices, but also how sexual norms, racism, class, geo-politics, ableism, and age-related power shape people's lives in conjunction with gender. Students in the program learn feminist theories and methods with which to transform the norms and forms of domination that socially construct women in oppressive ways, and that discourage practices of femininity and masculinity that hinder all genders from participating fully in society. Women and Gender Studies programs and departments throughout Canada and internationally are widely recognized as playing an important role in broadening and problematizing our definitions of knowledge and helping to amend the bias and narrowness of many academic disciplines and social practices and institutions beyond the academy. Governments and many large and small institutions and organizations acknowledge the need to work towards gender, sexual and related forms of equity; our graduates demonstrate their expertise in this area through a range of practical and professional applications of their knowledge.

For details on the Master of Arts in Women and Gender Studies see the *Graduate Academic Calendar*.

Course Descriptions

1200 Introduction to Women and Gender Studies

3 credit hours

This course introduces students to the discipline of women and gender studies, emphasizing the interdisciplinary nature of debates that inform the field. Topics may include: ideologies of femininity and masculinity; gender and psychology, language, sexuality, inequities; women and gender in the context of history, culture, literature, politics, economics; women, gender and intersecting identities, including ethnicity, class, race, disability, workforce and parenting.

2320 Writing by Women I [ENGL 2320]

3 credit hours

2321 Writing by Women II [ENGL 2321]

3 credit hours

2333 Women and Religion Today [RELS 2333]

3 credit hours

2385 Philosophical Issues in Feminism [PHIL 2385]

3 credit hours

2800 – 2825 Special Topics in Women and Gender Studies

6 credit hours

Prerequisite: at least three (3) credit hours in WMST.

These are combined lecture-seminar courses on a selected topic in Women and Gender Studies. Course content will vary from year to year. These courses allow students to take advantage of offerings in other departments relevant to a Women and Gender Studies degree.

2826 - 2849 Special Topics in Women and Gender Studies

3 credit hours

Prerequisite: at least three (3) credit hours in WMST.

These are combined lecture-seminar courses on a selected topic in Women and Gender Studies. Course content will vary from year to year. These courses allow students to take advantage of offerings in other departments relevant to a Women and Gender Studies degree.

3303 Sex, Gender and Society [ANTH 3303]

3 credit hours

Prerequisite: ANTH 1202, 1290, or 3 credit hours in a social science.

3305 Women in Christianity [RELS 2305]

3 credit hours

This course calls attention to the unconventional attitude of Jesus toward women; it studies the prominence of women in the New Testament, in contrast to early restrictions of their leadership roles. Did Christianity conform, from the beginning, to patriarchal society, betraying its own insight that in Christ "there is neither male nor female" (Galatians 3:28). Has Christian tradition legitimated male dominance? What can the cause of women's equality hope for from Christianity?

3348 Gender Roles [PSYC 3348]

3 credit hours

Prerequisite: one of PSYC 1200, 1240, 1250, and 1260.

3349 Women and the Economy [ECON 3349]

3 credit hours

3352 Women and Family in Ancient Greece [CLAS 3352]

3 credit hours

3376 Atlantic Canadian Film & TV

{ ACST 3376/CRIM 3376/SOCI 3376 }

3 credit hours

3387 Women and Development [SOCI 3387]

3 credit hours

Prerequisite: SOCI 1211

3435 Gender and Sex in 21st Century Media [SOCI 3435/CRIM 3435]

3 credit hours

Prerequisites: SOCI 1211 (As per usual for 3000 – Arts / SOCI courses)

4220 Power, Equity and Global Issues [CRIM/SOCI 4220]
3 credit hours

Prerequisites: CRIM/SOCI 3010, 3100, 3102 and SOCI 3012 or CRIM 3011

4327 Seminar in Crime and Media [SOCI 4327/CRIM 4327]
3 credit hours

Prerequisites: SOC I210

4386 Queer Theory [SOCI 4386]
3 credit hours

Prerequisites: SOC 1210

4404- 4405 Contemporary Issues of Feminism
3 credit hours

Prerequisite: at least twelve (12) credit hours in WMST or permission of instructor.

These courses provide an opportunity for students to study in considerable depth and detail selected contemporary issues of feminism both within and outside of academia. For example, a course might focus on inequality of women in the labour force, the role of unpaid work, violence and its use against women, the colonization of knowledge within academia, or on technology including the impact of new reproductive technologies and their control of women.

4406 Contemporary Issues of Feminism
6 credit hours

Prerequisite: at least twelve (12) credit hours in WMST or permission of instructor.

These courses provide an opportunity for students to study in considerable depth and detail selected contemporary issues of feminism both within and outside of academia. For example, a course might focus on inequality of women in the labour force, the role of unpaid work, violence and its use against women, the colonization of knowledge within academia, or on technology including the impact of new reproductive technologies and their control of women.

4417 Feminist Literary Theory [ENGL 4417]
3 credit hours

4420 Feminist Traditions in Scholarship

Prerequisite: at least seventy-eight (78) credit hours or permission of instructor.

Students will study the emergence of feminist theoretical perspectives, methodologies and analytical approaches in several disciplines in the humanities and social sciences.

4421 Seminar on Women and Gender Studies
3 credit hours

Prerequisite: at least twenty-four (24) credit hours in WMST courses.

Students will develop their analytic skills and apply feminist methodologies and analysis in carrying out their proposed research.

4422 Women, Gender and Development: Theory and Method [SOCI 4422]

3 credit hours

Prerequisites: CRIM/SOCI 3010, 3100, 3102 and SOCI 3012 or CRIM 3011

4423 Gender and Development: Policy and Practice [SOCI 4423]

3 credit hours

Prerequisites: CRIM/SOCI 3010, 3100, 3102 and SOCI 3012 or CRIM 3011

4427 Language, Gender and Power [ENGL 4427/LING 3427]

3 credit hours

Prerequisite: at least nine (9) credit hours at the 300-level or above.

4432 Gender and Law [SOCI/CRIM 4432]

3 credit hours

Prerequisites: CRIM/SOCI 3010, 3100, 3102 and SOCI 3012 or CRIM 3011

4433 Women's Literature in France [FREN 4433]
3 credit hours

4449 Public Policy Challenges: Gender, Race and Class [POLI 4449]
3 credit hours

4451 Gender and International Relations [POLI 4451]

3 credit hours

Prerequisite: Three (3) credit hours in POLI

This course explores theoretical and empirical issues raised by a "gender-based analysis" of international relations.

4514 - 4515 Advanced Directed Readings in Women and Gender Studies

3 credit hours

Prerequisite: permission of instructor.

4516 Advanced Directed Readings in Women and Gender Studies

6 credit hours

Prerequisite: permission of instructor.

4548 Feminist Analysis [SOCI 4548]

3 credit hours

Prerequisites: SOCI/CRIM 3100, SOCI/CRIM 3102 and either SOCI 3012 or CRIM 3011

Using a range of feminist theories and methodologies, students in this course explore issues that arise when studying women and gender relationships. Students will pay particular attention to the ways in which research can replicate and reinforce sex and gender biases.

4585 Feminist Philosophy [PHIL 4585]

3 credit hours

4850 – 4875 Directed Readings In Women and Gender Studies

6 credit hours

Prerequisite: at least twenty-four (24) credit hours in WMST courses.

These courses offer students an opportunity to pursue advanced readings and research in a particular area of Women and Gender Studies. The students and professors will design the programs of study together.

4876 - 4899 Directed Readings In Women and Gender Studies

3 credit hours

Prerequisite: at least twenty-four (24) credit hours in WMST courses.

These courses offer students an opportunity to pursue advanced readings and research in a particular area of Women and Gender Studies. The students and professors will design the programs of study together.

Section

5

**Academic Officers and Faculty
Officers and Faculty Emeriti
Administrative Officers
Awards to Faculty and Staff**

Academic Officers and Faculty

Academic Officers

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Ylijoki, Kai, H.B.Sc., M.Sc., (Lakehead University), Ph.D. (U of Alberta), Assistant Professor of Chemistry

Young, Nicola, B.Comm., M.B.A. (Dalhousie), F.C.A., Professor of Accounting

Zhang, Michael, B.S. (Zhejiang), M.A. (Xiamen), Ph.D. (Western Ontario), Associate Professor of Management Science

Zhynomirska, Lyubov, B.A. (Hons.) (University of Kyiv-Mohyla Academy), M.A., Ph.D. (U of Alberta), Assistant Professor of Political Science

Academic Officers and Professors Emeriti

Badawi, Jamal A., B.Comm. (Ain-Shams), M.B.A., Ph.D. (Indiana), Professor Emeritus of Management

Bowlby, Paul W. R., B.A., M.A., Ph.D. (McMaster), Professor Emeritus of Religious Studies

Carrigan, D. Owen, B.A. (St. Francis Xavier), M.A. (Boston), Ph.D. (Maine), Professor Emeritus of History

Chadwick-Jones, John, B.A., M.A. (Oxford), Ph.D., D.Sc. (Wales), F.A.P.A., F.B.Ps.S., Professor Emeritus of Psychology

Chesley, G. Richard, B.Comm. (Mount Allison), M.A., Ph.D. (Ohio State), Professor Emeritus of Accounting

Christiansen-Ruffman, Linda, B.A. (Hons.) (Smith College), Ph.D. (Columbia), Professor Emerita of Sociology

Connelly, Patricia, B.A. (Saint Mary's), Dip. Ed., M.A. (Dalhousie), Ph.D. (Toronto), Professor Emerita of Sociology

Davis, Stephen A., B.A. (New Brunswick), M.A. (Memorial), D.Phil. (Oxford), Professor Emeritus of Anthropology

Dostal, Jaroslav, Dip. Geol. (Prague), Ph.D. (McMaster), Professor Emeritus of Geology

Dougherty, Frank P., B.Comm. (Sir George Williams), M.Sc. (Clarkson College of Technology), Ph.D. (Pennsylvania State), C.A., Professor Emeritus of Accounting

Fitzgerald, Patricia A., B.B.A. (St. Francis Xavier), M.A. (North Dakota), Ph.D. (Northern Colorado), Professor Emeritus of Management

Gorman, Barry F., B.Comm. (Saint Mary's), M.B.A. (Dalhousie), Ph.D. (Bath), C.A., T.E.P., Professor Emeritus of Accounting

Grennan, Wayne, B.Eng. (Nova Scotia Technical College), B.A., M.A. (Dalhousie), D.Phil. (Oxford), Professor Emeritus of Philosophy

Haiven, Larry, B.Sc. (Toronto), M.P.M. (Alberta), Ph.D. (Warwick), Professor Emeritus of Management

Harvey, Andrew S., B.A. (Maine), M.A., Ph.D. (Clark), Professor Emeritus of Economics

Hayes, Archbishop Emeritus James M., B.A. (Saint Mary's), D.C.L., Hon.D.D., Hon.D.D., Hon.D.Hum.L., Hon.LL.D., Hon.D.Litt., Hon.D.Litt., Chancellor Emeritus

Haysom, John T., B.Sc. (London) Ph.D. (Cambridge) Professor Emeritus of Education

Hill, Janet, B.A. (Hons.) (Sheffield), M.A., Ph.D. (Dalhousie), Professor Emerita of English

Hill, Kenneth A., B.A. (California State College), M.A., Ph.D. (Alberta), Professor Emeritus of Psychology

Howell, Colin D., B.A., M.A. (Dalhousie), Ph.D. (Cincinnati), Professor Emeritus of History;

Katz, Wendy R., B.A. (Skidmore College), M.A., Ph.D. (Dalhousie), Professor Emerita of English

Larsen, Michael J., B.A. (Saint Mary's), M.A. (Dalhousie), Ph.D. (Toronto), Dean Emeritus of English

McCalla, Robert J., B.A. (Western Ontario), Ph.D. (Hull), Professor Emeritus of Geography

Millward, Hugh A., B.A. (Lancaster Polytechnic), M.A., Ph.D. (Western Ontario), Professor Emeritus of Geography

Mitchell, George F., B.Sc. (McMaster), M.A., Ph.D. (Toronto), Professor Emeritus of Astronomy and Physics

Murphy, James W., S.J., B.A. (St. Joseph's), M.A., Ph.D. (Toronto), Professor Emeritus of Chemistry

Morrison, James H., B.A., B.Ed. (Acadia), Ph.D. (Ibadan), Professor Emeritus of History

Murphy, Terrence, B.A. (Saint Mary's), M.A. (Fordham), Ph.D. (Newcastle-Upon-Tyne), Professor Emeritus of Religious Studies and History

Ozmon, Kenneth L., B.A. (St. Bernard College), M.A. (Catholic University of America), Ph.D. (Maine), Hon. LL.D. (Saint Thomas), President Emeritus

Pe-Piper, Georgia, B.Sc. (Athens), Ph.D. (Cambridge), Professor of Geology

Pendse, Shripad G., B.A. (Knox College, Illinois), M.S. (Massachusetts Institute of Technology), Ph.D. (Stanford), Professor of Management

Richardson, David H. S., B.Sc., M.Sc. (Nottingham), M.A., Sc.D. (Trinity College, Dublin), D.Phil. (Oxford), Dean Emeritus

Rojo, Alfonso, B.Sc. (Valladolid), M.Sc., D.Sc. (Madrid), Professor Emeritus of Biology

Seaman, Andrew T., B.A. (Mount Allison), M.A. (Dalhousie), Ph.D. (Dublin), Professor Emeritus of English

Schwind, Hermann F., B.B.A., M.B.A. (Washington), Ph.D. (British Columbia), Professor Emeritus of Management

Stiegman, Emero S., B.A. (Don Bosco College), S.T.L. (Salesion Pontifical), Ph.D. (Fordham), Professor Emeritus of Religious Studies

Tarnawski, V., M.Sc., Ph.D. (University of Technology, Poland), P.G.S. (University of Technology, Finland), Professor Emeritus of Engineering

Thomas, Gillian M. V., B.A., M.A. (Sussex), Ph.D. (London), Professor Emerita of English

Tudor, Kathleen R., B.A. (Sir George Williams), M.A. (Montreal), Ph.D. (Toronto), Professor Emerita of English

Turner, David G., B.Sc. (Waterloo), M.Sc., Ph.D. (Western Ontario), Professor Emeritus of Astronomy and Physics

Welch, Gary A., B.S. (Harvey Mudd College), M.S., Ph.D. (Washington), Professor Emeritus of Astronomy and Physics

Young, George F. W., B.A. (Harvard), Ph.D. (Chicago), Professor Emeritus of History

Young, John C. O'C., B.Sc., Ph.D. (London), M.B.A. (New York), Professor Emeritus of Chemistry

Administrative Officers

President

Summerby-Murray, Robert, B.A., M.A. (Canterbury), Ph.D. (Toronto), President (July 2015) and Professor of Geography

Vice-President (Finance and Administration)

Morrison, Gabrielle, B.Sc. (Dalhousie), B.E. (Technical University of Nova Scotia), P.Eng.

Vice President Advancement

Erin Sargent-Greenwood, (Wilfrid Laurier)

Associate Vice President (External Affairs)

Margaret Murphy, B.A. (Dalhousie), M.A. (Western Ontario)

Associate Vice President (Enrolment Management) and Registrar (acting)

Naulls, Donald J., B.A. (Hons.), M.A. (Wilfrid Laurier), Ph.D. (York), Associate Dean of Arts and Associate Professor of Political Science

Associate Vice President (Research)

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Associate Vice President (Teaching & Learning)

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Alumni Office

Daye, Mary Ann, B.Comm. (Saint Mary's), B.P.R. (Mount Saint Vincent), M.P.A. (Dalhousie), Director

Art Gallery

Metcalfe, Robin, B.A. (Hons.) (Dalhousie), Director/Curator

Business Development Centre

Crowell, Eric, B.A. (Dalhousie), M.B.A. (Toronto), C.A.,
Director

Development

Fitzpatrick, Heather M., B.P.R. (Mount Saint Vincent),
Director of Development

Facilities Management

Schmeisser, Gary H., B.Sc. (Dalhousie), B.Eng. (Technical
University of Nova Scotia), Senior Director

Financial Services

Rooney, Darrell, CA, Senior Director of Financial Services
Hayward, Maureen, B.Comm. (Saint Mary's), C.A.,
Assistant Director

Murtha, Cindy, B.A., B.B.A. (Mount Saint Vincent),
C.M.A., Manager, Reporting & Audit

Webb, Kevin, B.Comm. (Saint Mary's), C.M.A., Manager,
Financial Planning

Gorsebrook Research Institute

Twohig, Peter L., B.A., M.A. (Saint Mary's), Ph.D.
(Dalhousie), Professor of Atlantic Canada Studies,
Executive Director

Human Resources

Squires, Kim, B.A., B.Ed., M.B.A. (Saint Mary's),
C.H.R.P., Senior Director

Information Technology Systems and Support

Sisk, Perry, B.Sc. (Dalhousie), Senior Director

International Activities

Maureen Woodhouse, B.A. (Carleton), M.B.A. (Saint
Mary's), Acting Director

Library

TBA University Librarian

Cannon, Susan, Manager of Access Services, B.F.A.
(NSCAD)

Carter, Nicole, B.A., M.L.I.S. (British Columbia), M.A.
(Carleton), Reference and Research Librarian

Cook, Hansel, B.A. (Dalhousie), M.L.I.S. (British
Columbia), Archives, Special Collections and Records
Librarian

Harrigan, Cindy, B.A., B.Ed. (Saint Mary's), M.L.I.S.
(Dalhousie), Instructional Development Librarian

Houlihan, Ron, B.A. (Saint Mary's), M.L.I.S. (Dalhousie),
Promotional Services Librarian

Thomson, Joyce, B.A., M.L.S. (Dalhousie), Digital Services
Librarian

Webster, Peter, B.A. (Alberta), M.L.S. (Dalhousie),
Associate University Librarian, Information Systems

Winchcombe, Terri, Manager of Acquisition Services

Wood, Sally, B.A. (Saint Mary's), LL.B., M.L.I.S.
(Dalhousie), Collection Development Librarian

Enrolment Services

Braswell, Marie, B.A. (Thomson Rivers), M.A. (Royal
Roads), Associate Registrar – Admissions and Recruitment

Hallett, Leslie, C.G.A, Associate Registrar – Service Centre

Peters, David, B.Comm. (Saint Mary's), Associate
Registrar – Systems and Records

Sobey School of Business Advisory Council
Keith, John (Jack) R., Hon. D.Comm. (Saint Mary's),
C.M., Chairperson

Senate Office

Bell, Barb, Secretary of Senate

Conflict Resolution Advisor

Brownlow, Bridget, B.A. (Dalhousie), Con. Res-Cert.
(JIBC)

Diversity and Inclusions Advisor

Brothers-Scott, Deborah,

Student Services

Brophy, Tom, M.Ed. (Memorial), Senior Director

Morris, Sarah, B.Sc., M.Ed. (Dalhousie), Assistant Director

Leitch, David, B.A., B.Ed., B.Sc., M.A., Ph.D. (Dalhousie),
Director, Atlantic Centre for Support of Students with
Disabilities

Sewell, Raymond, B.A., M.A. (Saint Mary's), Indigenous
Student Advisor

Daniels, Adam, Student Transitions Specialist

**The Teaching English as a Second Language
Centre**

Zak McLaren, Director

The Writing Centre

Hotson, Brian, Director

Awards to Faculty and Staff

Annually there are four prestigious awards presented to members of faculty and staff.

a. The Reverend William A. Stewart, S.J., Medal for Excellence in Teaching

In 1983, the Alumni Association, in cooperation with the Faculty Union and the Students' Representative Council, established the Reverend William A. Stewart, S.J., Medal for Excellence in Teaching. This award is open to faculty members who have made an extraordinary contribution to the education of Saint Mary's students through teaching in the University's tradition of quality undergraduate education. Nominations are invited from alumni, students, and faculty members. This medal is presented at Spring Convocation together with a cheque for \$1,500. Previous winners of this prestigious award are:

1983	Professor David Hope (Accounting)
1984	Professor Dermot Mulrooney (Engineering)
1985	Dr. David Perrier (Sociology)
1986	Dr. John Young (Chemistry)
1987	Professor Edward McBride (Political Science)
1988	Dr. Jack Ginsburg (Chemistry)
1989	Dr. Peter March (Philosophy)
1990	Dr. Andrew Seaman (English)
1991	Dr. Phil Street (Psychology)
1992	Dr. Francis Phillips (Education)
1993	Dr. Janet Baker (English)
1994	Dr. Cyril Byrne (English)
1995	Professor Nicola Young (Accounting)
1996	Dr. Ronald Landes (Political Science)
1997	Dr. Paul Muir (Mathematics and Computing Science)
1998	Dr. David Cone (Biology)
1999	Dr. Robert Singer (Chemistry)
2000	Dr. Eric Lee (Finance and Management Science)
2001	Dr. Janet Gregory (Finance and Management Science)
2002	Dr. Gillian Thomas (English)
2003	Dr. Janet Hill (English)
2004	Dr. Porter Scobey (Mathematics and Computing Science)
2005	Dr. Adam Sarty (Astronomy and Physics)
2006	Dr. Edna Keeble (Political Science)
2007	Dr. Stephen Davis (Anthropology)
2008	Dr. Shelagh Crooks (Philosophy)
2009	Dr. Pawan Lingras (Mathematics and Computing Science)
2010	Dr. Barry Gorman (Accounting)
2011	Dr. Brian Bartlett (English)
2012	Dr. Coleen Barber (Biology)
2013	Dr. Gene Barrett (Sociology and Criminology)
2014	Dr. Maryanne Fisher (Psychology)
2015	Dr. Ellen Farrell (Management)
2016	Dr. Thomas Kozloski (Accounting)
2017	Dr. Marc Doucet (Political Science)

b. The Dr. Geraldine Thomas Educational Leadership Award

In 2007, the Quality of Teaching Committee established an Educational Leadership Award to recognize the long-term commitment of faculty who develop, enhance and promote the quality of teaching and learning at Saint Mary's, and beyond. The Committee gratefully acknowledges the support of the Saint Mary's University Faculty Union for this Award.

The Award is named for Dr. Geraldine Thomas, national teaching award winner, and founding member of the Quality of Teaching Committee. Dr. Thomas has spent the past twenty years of her academic career supporting efforts which improve teaching and learning within the University, the Atlantic region, and nationally.

2007	Dr. Shelagh Crooks (Philosophy)
2008	Dr. Adam Sarty (Astronomy and Physics)
2011	Dr. Howard Donohoe (Geology)
2013	Dr. Valerie Creelman (Communications)
2014	Dr. Paul Muir (Mathematics and Computing Science)
2015	Roxanne Richardson (Environmental Science)
2017	Dr. Kathy Singfield (Chemistry)

c. President's Award for Excellence in Research

Established in 1989, this annual award honours outstanding research conducted by a full-time faculty member who has been employed at the University for at least three years. Presentation of the award takes place at Convocation. A rigorous nomination procedure has been delineated whereby each Dean of a Faculty may select one member of his/her Faculty who has been nominated by a faculty research, and whose candidacy he is prepared to support. Other sponsors must be researchers, at least two of whom must be from outside Saint Mary's University. The award is adjudicated by the Research Committee of the Faculty of Graduate Studies and Research, which has the authority to decide which nominee, if any, is deserving of the award. The selection criteria consists of two component parts, namely productivity, whereby the nominee must have a record of continued exceptional contribution to research/scholarship; and secondly, recognition. The nominee must have attained national or international recognition as an authority in a major field of knowledge. The President's Award for Excellence in Research consists of a framed certificate presented at Fall Convocation together with a cheque for \$1,500. Previous winners of this significant award are:

1989	Dr. George Mitchell (Astronomy)
1990	Dr. John Chadwick-Jones (Psychology)
1991	Dr. John Reid (History/Atlantic Canada Studies)
1992	Dr. Jaroslav Dostal (Geology)
1993	Dr. Arthur Monahan (Philosophy)
1994	Dr. Michael Zaworotko (Chemistry)
1995	Dr. John Young (Chemistry)
1996	Dr. Terry Wagar (Management)
1997	Dr. David Turner (Astronomy)

- 1998 Dr. Colin Howell (History/Atlantic Canada Studies)
- 1999 Dr. Georgia Pe-Piper (Geology)
- 2000 Dr. Henry Veltmeyer (Sociology)
- 2001 Dr. Bert Hartnell (Mathematics and Computing Science)
- 2002 Dr. Andrew Harvey (Economics)
- 2003 Dr. Stephen Davis (Anthropology)
- 2004 Dr. J. Victor Owen (Geology)
- 2005 Dr. David Guenther (Astronomy and Physics)
- 2006 Dr. Kevin Kelloway (Management and Psychology)
- 2007 Dr. Hugh Millward (Geography)
- 2008 D. Albert Mills (Management)
- 2009 Dr. Robert McCalla (Geography)
- 2010 Dr. Goran Stanivukovic (English)
- 2011 Dr. Tony Charles (Management Science and Environmental Science)
- 2012 Dr. John McMullan (Sociology & Criminology)
- 2013 Dr. Jason Clyburne (Environmental Science)
- 2014 Dr. Jean Helms Mills (Management)
- 2015 Dr. Alexandra Dobrowolsky (Political Science)
- 2016 Dr. Pawan Lingras (Mathematics and Computing Science)
- 2017 Dr Peter Twohig, (Atlantic Canada Studies)

d. The President's Awards for Exemplary Service

Created in 2004, the President's Awards for Exemplary Service at Saint Mary's University are presented each year to recognize employees who have demonstrated outstanding service and/or who have made significant contributions to the University community beyond that normally expected for their positions.

The awards are open to full-time employees of Saint Mary's University who have served a minimum of five (5) years of continuous service prior to nomination and who have not previously received the award. A person may be nominated multiple years providing he/she hasn't received an award.

The awards will be based on outstanding service to the University in any one or more of the following areas:

1. Providing continued excellent service to the Saint Mary's community.
2. Enhancing the quality of life for students, employees, and/or visitors to the University.
3. Having a demonstrated record of innovation within the University in new programs/services or making significant improvements to existing programs or service, and
4. Advancing the reputation of Saint Mary's University regionally, nationally and/or internationally.

One award of \$1,500 may be presented annually to a faculty member and two awards of \$1,500 each may be presented annually to support and administrative employees.

- 2004
Dr. Elizabeth Chard (Registrar)
Joan Whitney (Office of the Dean of Arts)
Dr. Richard Chesley (Accounting)
Diane Gorman (Facilities Management) Honorable Mention

- 2005
Susan Doré (Office of the Dean of Science)
Ann MacDonald (Conference Services)
Dr. Malcolm Butler (Astronomy and Physics)
Kathy Mullane (Athletics) Honorable Mention
- 2006
Judy Grandy (Bookstore)
Bill Promaine (University Security)
Dr. Vic Catano (Psychology)
- 2007
Pat Bishara (External Affairs)
Carl Grandy (Facilities Management)
Dr. James Morrison (History)
Randolph Corney (Geology) Honorable Mention
- 2008
Margaret Anne Bennett (Centre for Academic and Instructional Development)
Margaret Harry (English)
David Lane (Astronomy and Physics)
- 2009
Rose Daurie (Math and Computing Science)
Donnie Jeffrey (Student Services)
Doug Vaisey (Patrick Power Library)
Honorable Mention
Dr. Robert McCalla (Geography)
- 2010
Dr. Robert Konopasky (Psychology)
Randy Corney (Geology)
Trevor Steinburg (Athletics and Recreation)
- 2011
Dr. Jeff Power (Accounting)
Mae Boettcher (Facilities Management)
Ronald Cochrane (Financial Services)
Margaret Schenk (Graduate Studies and Research))
- 2012
Dr. Francis Boabang (Finance)
Lois Larson (Sobey School of Business)
Dr. Shripad Pendse (Management)
Jennifer Stewart (Information Technology Systems and Support)
- 2013
Darlene McNeil (Facilities Management)
Rachelle Warner (Modern Languages and Classics)
- 2014
Dr. Adam Sarty, (Astronomy & Physics)
Barbara Bell (Senate Office)
- 2015
Dr. Donald Naulls (Political Science)
Ms. Bridget Brownlow (Conflict Resolution Officer)
Mr. Lindsay Thornton (ITSS)
Ms. Donna Filek (Sobey School of Business)

2016

Dr. Alexandre Avdulov (Modern Languages)
Susan Dauphinee (Finance, Information Systems and
Management Science)
Courtney Merriam (Dean of Science Office)

2017

Dr. Marc Lamoureux, Department of Chemistry
Ms. Susan Cannon, Patrick Power Library
Ms. Lauren Cullen, Admissions and Recruitment –
Enrollment Services
Mr. Michael Sanderson, Sobey School Business
Development Centre.