


## The Mission Statement

In 1843 the founders of Bishop's University declared their intention "to offer to the country at large the blessing of a sound and liberal education." Today our goal remains the education of individuals, primarily at the undergraduate level, to develop their talents and realize their leadership potential. Intellectual achievement is crucial to our mission and thus the University promotes academic excellence through an emphasis on teaching enriched by scholarship and research. The Bishop's experience begins with close interaction between professor and student but extends beyond the classroom to provide the basis for critical thinking and effective communication,
while also fostering community spirit and lasting friendships. Located in the bilingual setting of the Eastern Townships, Bishop's offers students from Quebec, Canada, and the International community the opportunity to exercise the rights and responsibilities of good citizenship and to engage in the tolerant and informed dialogue that sustains democracy.


A-SERVICES

1. John H. Price Sports Centre
2. Coulter Field
3. W.B. Scott Arena/outdoor pool
4. Centennial Theatre
5. Artists' Centre (Art Gallery)
6. Bandeen Hall (Music Dept.)
7. Residence/Conference Services
8. Security
9. Golf course
10. Panda Daycare Centre
11. University Bookstore
12. Health Services

## NOTICE:

The Academic Calendar is produced in both print and electronic format. The University will consider the most recent electronic version as the official University publication.
Archival copies are available at
http://www.ubishops.ca/academic-programs/calendar/index.
The Academic Calendar provides guidance to prospective students, applicants, current students, faculty and staff.

1. Bishop's University reserves the right to make changes to regulations, programs, courses, credit requirements, facilities, and fees - without prior notice.
2. In the interpretation of academic regulations, the Senate is the final authority.
3. Students are responsible for informing themselves of the University's procedures, policies and regulations, and the specific requirements associated with the degree or certificate sought.
4. All students registered at Bishop's University are considered to have agreed to act in accordance with the University procedures, policies and regulations.
5. Although advice is readily available on request, the responsibility of selecting the appropriate courses for graduation must ultimately rest with the student.
6. Not all courses are offered every year and changes can be made after publication. Always check the class schedule on the Bishop's portal for the most up-to-date information on whether a course is offered.
7. The academic publication year begins at the start of the Fall semester and extends through to the end of the Spring semester of any given year. Students who begin their studies at any point within this period are governed by the regulations in the academic calendar which came into effect at the start of the Fall semester.

C-ADMINISTRATIVE AUXILIARY BUILDINGS

1. St. Mark's Chapel
. McGreer Hall (Administration, Liaison/ Admissions, Visitors)
2. Service Buildings
3. Bishop Mountain House (Student Centre)
4. Marjorie Donald House (Student Centre)
5. Faculty Residences
6. "Hangar"
7. Peter D. Curry Wetland Habitat
\& D-ACADEMIC BUILDINGS
8. Johnson Science Building
9. Bassett Memorial Library
10. Divinity House
11. Morris House
12. Hamilton Building
13. Nicolls Arts Building
(Continuing Education / Éducation permanente)
14. Cormier Centre/Dobson-Lagassé Centre
15. Molson Fine Arts Building

E-Champlain College
$\mathbf{P}$ - Parking for Visitors
CREDITS:
Preparation: ................................................................. Registrar's Office Typesetting and design:...........................VisImage, Sherbrooke, Quebec Printing:..................................Blanchard Litho inc; Sherbrooke, Quebec Dépôt légal $3^{e}$ trimestre 2020.............. Bibliothèque nationale du Québec

## BISHOP'S UNIVERSITY Sherbrooke, QC J1M 1Z7

University Switchboard
819-822-9600
General Fax number.
819-822-9661
Admissions Office.............................................819-822-9600 ext. 2680
E-mail ......................................................... admissions@ubishops.ca
Fax .............................................................................. 819-822-9616
Continuing Education ........................................................819-822-9670
E-mail .............................................................. contedu@ubishops.ca
School of Education..........................................819-822-9600 ext. 2658
Recruitment Office............................................819-822-9600 ext. 2681
E-mail ............................................................recruitment@ubishops.ca
Records Office ..................................................819-822-9600 ext. 2682 Fax .............................................................................. 819-822-9616 E-mail ...............................................................records@ubishops.ca
Registrar's Office ..............................................819-822-9600 ext. 2676
Fax
819-822-9616
Residence Office ................................................819-822-9600 ext. 2685
Fax ................................................................................819-822-9615
E-mail ............................................................residence@ubishops.ca
Website........................................................................ www.ubishops.ca
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## 2021

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## Sessional Dates 2020-2021

| Fall 2020 |  |  |
| :---: | :---: | :---: |
| Monday | August 31, 2020 | All classes begin for Education students in the semester before their 13-week practicum (EDU 428/429) |
| Monday | September 7, 2020 | Labour Day |
| Wednesday | September 9, 2020 | Classes begin for all Day and Evening courses |
| Tuesday | September 22, 2020 | 4:00pm Last day to add / drop courses for all Fall and full year courses |
| Monday | October 12, 2020 | Thanksgiving (University Closed) |
| Tuesday | November 10, 2020 | Study Day (no classes) |
| Friday | November 13, 2020 | 4:00pm Last day to Withdraw with Permission from Fall courses |
| Tuesday | December 1, 2020 | Last day of regular classes |
| Wednesday | December 2, 2020 | Make up day for Thanksgiving Monday (M only, MW, MWF classes) |
| Thursday | December 3, 2020 | Make up day for Study Day Tuesday (TU only, TUTH classes), 4:00 pm Last day to withdraw with permission for all Fall and full-year courses |
| Sunday | December 6, 2020 | Fall semester examinations begin |
| Thursday | December 17, 2020 | Fall semester examinations end |
| Sunday | December 20, 2020 | MIDNIGHT: Deadline for instructors to submit Fall semester grades |
|  | December 24 - January 1 | University Closed |
| Winter 2021 |  |  |
| Monday | January 6, 2021 | Students enrolled in EDU428/429 start |
| Monday | January 11, 2021 | Students enrolled in EDU228/229 start |
| Monday | January 18, 2021 | All day and evening classes begin |
| Saturday | January 30, 2021 | Midnight: Last day to add/drop courses for all Winter courses |
|  | March 1 - March 6 | Reading Week |
| Saturday | April 3, 2021 | Midnight: Last day to Withdraw with Permission from all Winter courses |
|  | April 2-5, 2021 | Good Friday (University Closed) |
| Saturday | April 17, 2021 | Last day of regular classes |
| Monday | April 19, 2021 | Make up day for Easter Monday (M only, MW, MWF classes) |
| Tuesday | April 20, 2021 | Make up day for Good Friday (F only, WF, MWF classes) |
| Wednesday | April 21, 2021 | Make up day for Saturday, April 3 ${ }^{\text {rd }}$ (SA only \& W/SA classes) |
| Thursday | April 22, 2022 | Winter semester examinations begin |
| Friday | April 30, 2021 | Winter semester examinations end |
| Tuesday | May 4, 2021 | Midnight: Deadline for instructors to submit Winter semester and Full year grades |
| Saturday | June 5, 2021 | Convocation |

Spring I 2021

| Monday | May 10, 2021 | Spring I semester classes begin |
| :--- | :--- | :--- |
| Friday | May 14, 2021 | Midnight: Last day to add/drop Spring I semester courses |
| Monday | May 24, 2021 | National Patriot's Day (Victoria Day) (University Closed) |
| Monday | June 7, 2021 | Midnight: Last day to Withdraw with Permission from Spring I <br> semester courses |
| Thursday | June 17, 2021 | Last day of regular classes |
| Friday | June 18, 2021 | Make-up day for National Patriot's Day |
|  | June 21-22, 2021 | Spring I Semester Day \& Evening examinations |
| Monday | June 28, 2021 | Midnight: Deadline for instructors to submit Spring I semester <br> grades |

## Spring II 2021

| Monday | July 5, 2021 | Spring II semester classes begin |
| :--- | :--- | :--- |
| Friday | July 9, 2021 | Midnight: Last day to add/drop Spring II semester courses |
| Friday | July 30, 2021 | Midnight: Last day to withdraw with permission from Spring II <br> Semester courses |
| Thursday | August 12,2021 | Last day of regular classes |
|  | August 16-17, 2021 | Spring II Semester Day \& Evening examinations |
| Friday | August 23, 2021 | Midnight: Deadline for instructors to submit Spring II semester <br> grades |

## Summer 2021

| Monday | May 10, 2021 | Classes begin for all day and evening courses |
| :--- | :--- | :--- |
| Friday | May 21,2021 | Midnight: Last day to add/drop courses |
| Monday | Ma y 24, 2021 | National Patriot's Day (Victoria Day) (University Closed) |
| Thursday | June 24, 2021 | St. Jean Baptiste Day (University Closed) |
| Thursday | July 1, 2021 | Canada Day (University Closed) |
| Friday | July 16, 2021 | Midnight: Last day to Withdraw with Permission from Summer <br> semester courses |
| Friday | July 30, 2021 | Last day of regular classes |
| Monday | Aug 2, 2021 | Make-up day for National Patriot's Day (M only, MW, MWF <br> classes) |
| Tuesday | Aug 3, 2021 | Make up day for St. Jean Baptiste Day (TH only, TUTH classes) |
| Thursday | Aug 4, 2021 | Make up day for Canada Day (TH only, TUTH classes) |
| Monday | August 9,2021 | Summer semester examinations begin |
| Friday | August 13,2021 | Summer semester examinations end |
| Wednesday | August 18,2021 | Midnight: Deadline for instructors to submit Summer semester <br> grades |

## General Information

## Characteristics

Bishop's is a predominantly residential university whose primary concern is offering to undergraduate students a quality education in Arts, Sciences, Business Administration and Education. Its academic programs are broadly based and stress the interrelationships of disciplines rather than their specializations. The residential aspect and small size of the University encourage an informal atmosphere in academic and social situations. Emphasis is placed on personal contact between faculty and students through small classes and frequent use of seminars, laboratories and tutorials. Self-directed study is encouraged with student research projects and special independent study programs. Approximately 2,900 full-time and part-time students were enrolled in Bishop's courses in 2019-20.

## Location

Bishop's University is attractively situated in the Sherbrooke borough of Lennoxville, amid the rolling hills of the Eastern Townships of southern Quebec. The campus occupies a 500-acre tract at the junction of the St. Francis and Massawippi rivers, bordered on the west by the borough of Lennoxville and on the east by open countryside. Several lakes, bike trails and numerous ski resorts within short driving distances supplement the recreational facilities on the campus.

## Origin and Development

The University was founded as Bishop's College in 1843 under the sponsorship of the Right Reverend G. J. Mountain, third Anglican Bishop of Quebec, with the assistance of a group of clergy and laymen of the Eastern Townships. According to the intention of its founders, Bishop's was to have two functions: "to offer to the country at large the blessing of a sound and liberal education" and to provide training for the clergy. Ten years later, in 1853, the College received a royal charter granting it the right to confer degrees.

The early development of Bishop's was gradual. Its original grant of land, forty acres, was donated by Lieutenant-Colonel William Morris. On this site, the first building, consisting of the five central bays of what is now McGreer Hall, was erected and occupied in 1846. The chapel was consecrated in 1857, an Arts Building in 1861 (destroyed by fire in 1891), a new Arts Building (now the Johnson Building) and Divinity House in 1892. The first degrees granted by Bishop's, in 1854, were in Arts and Divinity. In 1871, a medical faculty was established in Montreal, which functioned until 1905 when it was merged with the Medical Faculty of McGill University. A small Faculty of Law awarded 15 degrees between 1881 and 1888. Specialized programs in Professional Education and in the Natural Sciences were introduced in the 1920s.

The administration of Bishop's remained under the aegis of the Church of England until 1947 when the Corporation of the University was reconstituted as a nondenominational body.

In 1949, an extensive development program was initiated with public support. Most of the present facilities have been constructed since that time: Norton Hall and Pollack Hall residences, the Memorial Gymnasium (now Memorial House, part of the Student

Centre) and the central heating plant in 1949-50; the John Bassett Memorial Library, Mackinnon Hall residence and several faculty houses in 1958-59; the W.B. Scott Memorial Rink in 1961; the Jasper H. Nicolls Arts Building, the John Hamilton Administration Building and Bishop Mountain House students’ centre in 196263; Abbott Hall, Kuehner Hall and Munster Hall residences in 1964-66; a new wing to the Andrew S. Johnson Science Building in 1966; the Centennial Theatre in 1967; an addition to the John Bassett Memorial Library in 1970; a new football stadium in 1971; the John H. Price Sports and Recreation Centre in 1975; Marjorie Donald House, a new wing of the Student Centre, in 1977. The Molson Fine Arts Building and an extension to the library were added in 1990. The Centennial Theatre was renovated and expanded to include an Art Gallery in 1991. In 1998, improvements were made to Memorial House and Marjorie Donald House, which now form part of the University Centre. An apartment-style residence, Paterson Hall, was opened in the fall of 2003. In 2008 a Field Turf surface was installed on Coulter Field. The Johnson Science Labs underwent an extensive renovation in 2009 and were re-opened in early 2010. Thanks to public support the John H. Price Sports and Recreation Centre underwent extensive renovations which included a second double gymnasium and the Jane and Eric Molson Arena In 2015.

Since 1949, the student body and faculty have more than trebled in size. Many new programs have been introduced, including a Bachelor's degree program in Business Administration, numerous specialization options and a variety of inter-disciplinary programs. In 1970, following the institution of colleges of general and vocational education (CEGEPs) at the pre-university level in Quebec, Bishop's, along with other universities in the province, reorganized its undergraduate programs to lead to the Bachelor's degree in three years of study beyond the collegial level.

Thus, Bishop's University had its beginnings more than 175 years ago as a private college supported by the Church of England. During its early development, a strong humanistic tradition was established in its programs and teaching. Since 1949, the University has evolved rapidly as part of a provincially supported system of higher education. Bishop's assumes a distinctive role in this system as a relatively small and residential university with broadly based programs. Bishop's aims to offer a well-rounded liberal education adapted to the needs and opportunities of the day.

## Academic Organization

Bishop's has integrated its academic resources into a single faculty to facilitate communication in academic affairs within the University and to provide maximum flexibility in the design of programs. Academic disciplines (e.g. History, Environmental Studies and Geography, Biology) are represented by departments which are grouped into three areas - Arts and Science (including the Divisions of Humanities, Natural Sciences and Mathematics, and Social Sciences), the Williams School of Business and the School of Education.

## Programs

Bishop's undergraduate programs lead to Bachelor's degrees in Arts, Science, Education and Business Administration. Subjects offered for Honours or Major specialization in Arts include Classical Studies, Drama, Economics, English, Environment and Geography, Études françaises et québécoises, Fine Arts, History, Liberal Arts, Modern Languages, Music, Philosophy, Political Economy, Political and International Studies, Psychology, Religion, Sports, Studies, Sociology. In Science, the major subjects are Biochemistry, Biology, Chemistry, Computer Science, Mathematics, Physics and Astronomy, and Psychology (Neuroscience). Interdisciplinary Concentrations or Minor specializations are also possible in many areas.

Students may design their programs within a broad framework of options. A student may opt to major in a single subject - e.g. English, Psychology or Chemistry; or in some combination of subjects from more than one Division - e.g. Geography and History or Mathematics and Music. Honours programs are offered in many subjects. Major or Honours and Minor specializations may be combined in a program.

In addition to offering undergraduate programs leading to the B.Ed. degree, the School of Education prepares graduates for the Master of Arts in Education and the Master of Education and the Graduate Certificate in Teaching English as a Second Language.

The University also offers a Master of Science in Computer Science or Physics, a Graduate Certificate in Brewing Science, Graduate Certificate in Knowledge Mobilization, Graduate Certificate in Management and a Graduate -level micro-program in Climate Change.

## Part-Time Studies

Bishop's University is dedicated to fulfilling the lifelong learning needs of community part-time students. Its mission is to assure accessibility within the Eastern Townships to high quality educational programs for adult learners pursuing part-time degree and certificate studies and those seeking personal and professional development. A variety of degree courses are offered year round in the Fall, Winter and Spring semesters.

## Association with Champlain Regional College

Champlain Regional College is part of the provincial system of colleges of general and vocational education (CEGEPs). One of its three sites has been on the campus of Bishop's University since 1971. While Champlain's administrative offices and some classrooms are located in the College's own building, virtually all other campus facilities are shared with Bishop's. A spirit of mutual cooperation between the two institutions and student bodies has allowed this arrangement, unique in the province, to succeed.

Please note that particular application and course registration deadlines for each institution must be observed. It is advisable to contact the Admissions Office for further information.

Inquiries about Champlain should be addressed to:
Champlain College Lennoxville
C.P. 5003

Sherbrooke Quebec
J1M 2A1
Tel: 819-564-3666
E-mail: admissions@crc-lennox.qc.ca

## Affiliation with the Thomas More Institute for Adult Education

Qualified graduates of the Thomas More Institute for Adult Education, 3405 Atwater Avenue, Montreal, Quebec, may be granted the Bachelor of Arts degree by Bishop's University, by an affiliation agreement concluded by the two institutions in 1974. The degree program of the Thomas More Institute is designed for mature adults, normally over 23 years of age, and offers to such persons a special opportunity to continue their formal education in the Liberal Arts tradition. For information: 514-935-9585.

## Admission

General inquiries from prospective students should be directed to:
Recruitment Office
Bishop's University
2600 College Street
Sherbrooke, Quebec
J1M 1 Z7
Tel. 819-822-9600 ext. 2681
or $1877-822-8200$
E-mail: recruitment@ubishops.ca
Website: www.ubishops.ca

## APPLYING TO BISHOP'S UNIVERSITY

## Application Procedure

Applications must be submitted online at www.ubishops.ca. Supporting documents should be submitted to:

## Admissions Office

Bishop's University
2600 College Street
Sherbrooke, Quebec
J1M 1Z7
Tel.: 819-822-9600 ext. 2680
or 1-877-822-8200
E-mail: admissions@ubishops.ca
All applications made via the ubishops.ca website must be accompanied by:

1. A non-refundable $\$ 65$ application fee paid electronically (in Canadian funds) at the time of application.
2. A complete transcript of all relevant academic records, including current mid-year examination results and/or a description of activities since completing academic studies if not currently studying;
3. Proof of proficiency in English (list of accepted documents available at www.ubishops.ca)
4. Additional supporting documentation may be requested by the Admissions Office.

## Mature Applicants must also provide:

1. CV - outlining all activities since last full-time study;
2. Letter of intent - outlining motivation for pursuing post-secondary studies, reasons for choosing the desired program and plan for ensuring academic success.

## Application Deadlines

Electronic applications must be submitted prior to the following dates each year.

April 1 Fall semester entry with residence guarantee
May 1 Fall semester entry final deadline

## October 1 Winter semester entry (international applicants)

November 1 Winter semester entry: (non-international applicants) Late applications are not considered except under exceptional circumstances.

Different deadlines apply to former students seeking readmission to the University after having withdrawn or interrupted their studies. See the Admissions Policies section for details.

## ADMISSIONS POLICIES

## General

1. Decisions on admissibility, advanced standing and re-admissibility of applicants to undergraduate programs are governed by the admissions policy determined by the Senate of Bishop's University. This policy is administered by the Academic Deans and the Registrar and Director of Admissions.
2. Decisions made by the Academic Deans concerning admission to the University may be reconsidered if the applicant is in a position to provide additional information to the University that could lead it to reverse the initial admission decision. To request reconsideration of a negative admissions decision, applicants must apply in writing to the VicePrincipal Academic, outlining the rational for requesting reconsideration of an admissions decision. This request must be within 14 calendar days of receipt of a negative admissions decision. The Review Committee will consist of the following members of the Academic Standing and Admissions Policy Committee: Academic Deans who have not been involved in the initial admissions decision, the Vice-Principal Academic, the Vice-President Academic of the Student Representative Committee, and the University Ombudsperson. The decisions of the Review Committee shall be final and are not appealable.
3. Evaluation of a student's eligibility for admission to the University is based primarily on the student's performance in the most recent year of academic study, although other factors and previous academic performance will be taken into consideration where appropriate.
4. Students withholding, misrepresenting or supplying incomplete information concerning their previous academic performance or standing may be required to withdraw from the University should that information change the conditions on which their admission to the University was based.
5. The minimum average required for admission consideration is 70\% (High School), 20 R-Score (CEGEP), or equivalent, as calculated by the Admissions Office. Meeting the minimum average does not guarantee admission as admission to the University is competitive.
6. The number of admissions is limited, and the University is not bound to accept any or all applicants who may possess the minimum admission requirements.
7. Applicants who have demonstrated academic excellence may be admitted to the University on the basis of criteria other than those listed herein.
8. Formal written notification from the Registrar's Office is the only valid statement of a student's admission status. Opinions expressed by or information provided by individuals are not binding unless confirmed in writing by the Registrar's Office or the appropriate Academic Dean.
9. Students may be exempt from an introductory course at the University when they have completed comparable non-university course work elsewhere. No credit will be granted towards their Bishop's degree for the exemption. Any exempted course must be replaced by a Bishop's course of equal credit.
For specific information on admission requirements for the Bachelor of Education, see Admission - Teacher Education Programs.

## CEGEP Applicants

1. Th e CRC (R-score) is used for admission purposes.

Note: Students following an IB program at CEGEP will have their CRC adjusted according to an established calculation in acknowledgement of the rigor of this program.
2. Students admitted on the basis of a completed Collegial Diploma (D.E.C.) are normally granted 30 credits of advanced standing, reducing a 120 -credit requirement to 90 credits ( 3 years plus any applicable missing pre-requisites).
3. Admission is conditional, pending successful completion of the D.E.C. (Collegial Diploma), before a student enters the University. Students with an incomplete D.E.C. are not eligible for admission.
Exception: Individual applicants with acceptable academic performance but without the D.E.C. may be admissible with one CEGEP program element missing, on receipt of a written explanation (with supporting documentation as required) of the reason(s) the D.E.C. is not completed. If admitted, these students must complete the remaining requirements for their D.E.C. within 12 months of their first registration at Bishop's.

## High School Applicants

## Canadian High School Applicants

1. Admission average is calculated on academic courses only, including any required program pre-requisites. Physical Education results are not included except in the case of Ontario high school courses coded U.
Program Prerequisites (Grade 12 Academic Level)

$$
\begin{array}{ll}
\text { All Programs: } & \text { English } \\
\text { Business Administration: } & \text { Mathematics } \\
\text { Natural Sciences: } & \text { Mathematics, two sciences }
\end{array}
$$

2. Admission would be to a 120 -credit ( 4 -year) program.
3. Admission is conditional, pending successful completion of the Grade 12 Diploma.
4. Students are eligible to receive advanced credit for most Advanced Placement (AP) examinations completed with a grade of 4 or better and for most IB Higher Level courses completed with a grade of 5 or better - please contact the Admissions Office for details.

## U.S. High School Applicants

1. The Grade 12 GPA are used for admissions purposes.
2. SAT/ACT scores are not required but can be used to supplement an admissions decision.
3. Admission would be to a 120 -credit ( 4 -year) program.
4. Admission is conditional, pending successful completion of an accredited Grade 12 Diploma.
5. Students are eligible to receive advanced credit for most Advanced Placement (AP) examinations completed with a grade of 4 or better and for most IB Higher Level courses completed with a grade of 5 or better - please visit the website for details.

## International Baccalaureate Applicants

## Applicants from IB Curriculum Schools

1. The Diploma score (or anticipated Diploma score if studies are not yet complete) is used for admission purposes.
2. Admission would be to a 120 -credit ( 4 -year) program.
3. Admission is conditional, pending successful completion of the Diploma.
4. Students with a completed Diploma score of 30 or higher may receive 30 credits ( 1 year) of advanced standing.

## Applicants from Dual Curriculum Schools

1. Candidates from secondary schools that offer a recognized "regular" high school curriculum in addition to the IB program are considered based on the profile that is most advantageous to them.
2. Admission would be to a 120 -credit ( 4 -year) program.
3. Admission is conditional, pending successful completion of the IB Diploma or the regular Grade 12 Diploma.
4. Students with a completed Diploma score of 30 or higher may receive 30 credits ( 1 year) of advanced standing.
5. Those completing a regular Grade 12 Diploma may receive advanced standing credit for individual Higher Level IB courses completed with a grade of 5 or better.

## Baccalauréat Français Applicants

1. Grades from the Première and Terminale levels of the Baccalauréat Francais are used for admission purposes. Requests for admission from students completing a Baccalauréat professionnel or a Baccalauréat technologique will be considered on an individual basis.
2. Admission would be to a 120 -credit ( 4 -year) program.
3. Admission is conditional, pending successful completion of the Terminale.
4. Students with a completed Baccalauréat général score of 12/20 or higher and mention assez bien may receive 30 credits ( 1 year) of advanced standing.

## A-Level Applicants

1. Grades on completed GCSE examinations and anticipated grades on A-Level examinations are used for admission purposes.
2. Admission would be to a 120 -credit (4-year) program.
3. Admission is conditional, pending successful completion of the required A-Level examinations.
4. Advanced standing credit for A-Level examinations may be granted if the grade is C or better.

## Caribbean Examinations Council CAPE

 Diploma Applicants1. Anticipated grades on CXC CAPE subjects are used for admission purposes.
2. Admission would be to a 120 -credit ( 4 -year) program.
3. Admission is conditional, pending successful completion of the CAPE Diploma.
4. Advanced standing credit for CXC CAPE examinations may be granted if the grade is III or better.

## International Secondary School Applicants

1. Applications are considered on an individual basis.
2. Admission would be to a 120 -credit (4-year) program.
3. Admission is conditional, pending successful completion of the appropriate secondary school credential.

## College/University Transfer Applicants

1. Applicants who have completed more than one semester at another college or university will be evaluated as transfers from that college or university. Transfer students must normally:
a) be in good academic standing and eligible to return to the institution they have been attending and
b) fulfill the specific academic admission requirements of the program to which they are applying at Bishop's.
2. Admission would be to a
a) 120-credit (4-year) program with 30 credits (1 year) of advanced standing (minus any applicable pre-requisites) for those who completed a D.E.C. at a Quebec CEGEP prior to entering college or university.
b) 120-credit (4year) program for those who completed a Canadian high school, U.S. high school, or international secondary school program prior to entering college or university.
3. Transfer students from colleges and universities may be eligible for advanced credit granted at the discretion of the appropriate Departmental Chairperson on presentation of official transcripts and course descriptions for evaluation. Transfer credit is awarded subject to the regulations governing credit for studies completed elsewhere. Any advanced credit granted is subject to further review should the student change programs. (See Credit for Studies Completed Elsewhere).
4. Canadian citizens/permanent residents who have completed college or university studies outside North America are en-
couraged to obtain an "Evaluation comparative des études effectuées hors du Québec" from the Québec Ministry of Immigration.

## Second Bachelor Degree Applicants

1. Persons holding a Bachelor's degree from a North American institution will be considered for admission to a program leading to a second Bachelor's degree. Admission would be to a minimum one-year, 30 -credit program plus any additional credits required to complete the selected program. (See Regulation for Bachelor's Degrees).
2. Persons who have completed studies outside North America and wish to be considered for second degree admission must obtain an "Evaluation comparative des études effectuées hors du Québec" from the Quebec Ministry of Immigration confirming that the international credential obtained is equivalent to a Bachelor's degree In Quebec. No second degree candidate status will be awarded without the Attestation.

## Mature Student Applicants

1. Admission may be granted to certain applicants who do not satisfy the usual academic requirements of the University.
2. Mature student applicants must:
a) be 21 years of age or older by September 1 for the Fall Semester or January 1 for the Winter Semester.
b) normally not have registered for full-time studies at CEGEP (Quebec students) or high school (non-Quebec students) or a college or university for at least 24 months;
c) satisfy the University that they have the potential to be successful in undergraduate courses through the successful completion of at least three university-level courses in one semester on a part-time basis and/or the evaluation of previously completed studies.
3. Meeting the above criteria does not guarantee admission to the University. Admission decisions are made on an individual basis taking into account an applicant's global profile.
4. Admission would be to a 120-credit (4-year) program with up to 30 credits (1 year) of advanced standing (depending on program prerequisite requirements).

## Former Students Seeking to Complete a Degree/ Certificate

Degree/certificate candidates who have formally withdrawn from the' University or who have, for any reason, allowed twelve months or more to elapse without earning any credits at Bishop's University must apply for readmission to the University in respect of the following deadlines:

July 1 Fall semester readmission
November 1 Winter semester readmission
March 1 Spring/Summer semester readmission
Students in this position should contact the Admissions Office in advance of the appropriate deadline to determine the correct procedure. If permitted to resume their studies, they will be required to adhere to the Academic Calendar regulations in effect at the time the degree program is resumed. See the Interrupted Studies section for more detailed information.

## Part-time General Interest Applicants

1. Part-time general interest students must:
a) be a Canadian citizen. Students requiring a CAQ and Canadian study permit are not eligible for part-time studies,
b) be a minimum of 19 years of age on the date of registration for the semester (except for applicants to the English Language Summer School, who may be 18 years of age).
2. The academic progress of all part-time students will be reviewed by the Admissions Office prior to acceptance of their registration in a semester (See Maintenance of Good Academic Standing, Probation, and Must Withdraw Status).
3. Canadian citizens who wish to pursue fewer than 12 credits per semester out of general interest or as audit students may apply to the University as Special Undergraduate General Interest (SPU) students via the website: www.ubishops.ca.
Note: Audit courses are charged fees in the same manner as credit courses.
4. Part-time General Interest students may make application for admission to a degree program by following the procedures and respecting the deadlines outlined in the Admissions - Applying to Bishop's University section of this calendar. Students who wish to be considered for admission to a degree program must normally satisfy the formal admission requirements of the University as specified for degree studies.
5. Part-time General Interest students who have not fulfilled the requirements for admission to a degree program before commencing general interest studies may be evaluated for degree admission based on their performance.
a) A minimum of three courses ( 9 credits, not including full-year courses) successfully completed in one semester with a minimum average of $65 \%$ ( $75 \%$ for the Williams School of Business) is normally required for successful application to a program. A $65 \%$ average does not guarantee admission and individual departments may have additional requirements.
b) Applicants not meeting this standard will be evaluated on an individual basis.
6. Admission would be to a:
a) 120-credit (4 year) program with up to 30 credits ( 1 year) of advanced standing (depending on any applicable prerequisite courses) for those who completed a D.E.C. at a Quebec CEGEP prior to commencing general interest studies.
b) 120-credit (4 year) program for those who completed a Canadian high school, U.S. high school, or international secondary school program prior to commencing general interest studies.
c) 120 -credit ( 4 year) program with up to 30 credits ( 1 year) of advanced standing (depending on any applicable prerequisite courses) for those who are identified as mature students.
7. Part-time General Interest students who do not register at the University for 12 months or more must submit a new application to the University through the Admissions Office in respect of published deadlines.

## ADMISSION - TEACHER EDUCATION

## PROGRAMS

Bishop's University's Teacher Education program offers four Bachelor of Education degrees:

1) B.Ed. in Teaching and Learning at the Elementary Level
2) B.Ed. in Teaching and Learning at the Secondary Level (English, Mathematics, Science and Technology, and Social Sciences profiles)
3) B.Ed. in Teaching and Learning of the Creative Arts (Drama, Fine Arts and Music concentrations)
4) B.Ed. in Teaching English as a Second Language

## Admission

Students making application to the programs in Education must fulfill the normal entrance requirements of the University and follow the same application procedure outlined in the "Admission - Applying to Bishop's University" section of this calendar. Applicants to Education should refer to the section of the Academic Calendar for the School of Education for additional requirements. Candidates already holding an undergraduate degree in a discipline other than Education are eligible for consideration for admission to the School of Education. Such candidates would be considered as second degree applicants for admission to any of the four B.Ed. programs. Minimum course requirements would be determined by the Academic Dean. Such candidates would be evaluated for admission on the basis of:
a) academic record
b) suitability for the profession

A personal interview may be conducted by the School of Education where evidence of good communication, problem solving and organizational skills, the ability to work as a member of a team, and strong self-evaluation skills should be demonstrated.

Admission to - Master of Arts in Education,

## Master of Education

1. Individuals wishing information on making application are referred to the School of Education for program information.
2. These programs have a Fall entry. The final deadline for receipt of applications is May 1. All documentation should be submitted to the Admissions Office.
3. Documentation and additional requirements are found in the School of Education section of this Calendar.
4. Completed applications will be forwarded to the Admissions Committee of the School of Education for evaluation.
5. A minimum grade of $75 \%$ in undergraduate or previous graduate studies is required. Evaluation procedures may also include an interview, when possible.
6. The School of Education will report to the Admissions Office the decisions on admission.
7. Only a limited number of students can be admitted to the program each year.
8. Students wishing to complete courses in the School of Education without being admitted to the M.Ed./M.A. may be classified as Special Graduate (SPG) students in Education. Such students may complete up to 9 graduate-level Education credits. Admission to graduate courses does not in itself imply candidacy for a graduate degree

## NOTICE OF ADMISSION AND <br> RESPONSE DEADLINES

1. When applicable, admission is conditional upon an applicant's obtaining the final grade levels specified in their offer of admission and/or on www.ubishops.ca.
2. Applicants who receive an offer of admission from Bishop's must confirm acceptance of such offer online at www. ubishops.ca by the date indicated in the letter of admission. A confirmation fee is collected electronically as part of this step.
3. Application for residence accommodation or payment of residence deposit(s) do not signify acceptance of an offer of admission.

## RESIDENCE

1. All activities relating to residence accommodation (application deposit(s), room assignments) are administered by the Office of Residence Administrative Services.
2. Decisions of the Registrar's Office or the appropriate Academic Dean concerning a student's eligibility for admission to the University are not affected by an applicant's residence situation.

## REGISTRATION

1. Students admitted to degree and certificate programs will be sent detailed registration instructions for the Fall and Winter and Spring/Summer semesters.
2. Part-time general interest students will receive registration instructions through the Registrar's Office.
3. Receipt of registration instructions does not change academic decisions which may have been made or which will be made concerning an individual's eligibility to attend Bishop's University. Receipt of registration instructions therefore does not represent permission to register.
4. Registrations are accepted on a provisional basis until verification can be made that the registration complies with any restrictions required by the student's academic or financial standing. If there is a problem, the student will be informed as soon as possible following their registration.

## 2020-2021 Fees

All students are required to pay their School Fees in full before the start of each semester. All amounts are listed in Canadian funds.
The payment deadlines are as follows: September 30 for the Fall Semester; January 31 for the Winter Semester
The University may make changes to this Calendar, including the fees, without notice as advised by the Quebec government and /or as circumstances warrant.

## SCHOOL FEES <br> (Check our Website for updated fees)

## TUITION FEES:

Canadian fees:

Tuition Fees for Quebec residents ${ }^{(1)}$
Tuition Fees for Out-of-province residents ${ }^{(2)}$

Undergraduate:

Graduate:
Business (2016 and earlier)
Business cohort 2017
Business cohort 2018
Business cohort 2019
Cohort 2020 (All disciplines)
Science, Mathematics, Computer Science, Drama, Music, Fine Art
(Earlier than2020)
Other disciplines (Earlier than 2020)
Course-based graduate program
Course-based graduate Cohort2020
Thesis-based graduate program
$\$ 87.43$ per credit $\$ 272.88$ per credit
$\$ 751.97$ per credit
$\$ 700.00$ per credit $\$ 750.00$ per credit $\$ 808.33$ per credit $\$ 816.67$ per credit
\$672.92 per credit $\$ 602.45$ per credit
$\$ 602.45$ per credit $\$ 816.67$ per credit $\$ 598.70$ per credit

Tuition fees are the same for in person or online classes
${ }^{(*)}$ The base Quebec tuition rate is indicated on all Non-Quebec and on International on thesis-based graduate students financial statements for accounting and transparency.

## COMPULSORY FEES: (per Semester)

Registration fee
Administration fee
Sports Center Access fee
Student Services
Student Fees (listed below) (9 credits or more)
SRC Activity fee $\quad \$ 62.03$
SRC Quad yearbook \$6.48
Campus Newspaper $\quad \$ 7.70$
Refugee Sponsorship $\$ 5.00$
Library Contribution \$40.35
Environmental Levy $\quad \$ 2.60$
Quebec Students Union (QSU) \$4.85
Total Student Fee $\$ 129.01$
Copyright fees $\quad \$ 0.88 /$ credit
Technology fee
OTHER FEES: (new students only)

| English Writing Proficiency Test (EWP) | $\$ 37.74$ |
| :--- | :--- |
| Students' Representative Council (SRC) |  |
| Orientation Fee | $\$ 87.02$ |
| Winter Orientation Fee | $\$ 26.68$ |

(1) Regulations imposed by the Quebec Ministry of Education oblige students to provide proof of Quebec residency at the time of registration in order to be charged the Quebec tuition rate. Students who fail to provide the required proof must pay additional fees as prescribed by the Ministry. Students born in Quebec must provide a copy of their birth certificate to be classified as Quebec residents. Students born outside Quebec must meet specific criteria and submit proper documents to be recognized as Quebec residents. For information visit: http://www.ubishops.ca/fileadmin/bishops_documents/school_fees/files/2007-07-07_formulaire-anglais_srq_universite.pdf.
(2) Canadian Non-Quebec students enrolled in the French Honors program pay the Quebec tuition fees for all credits once accepted provided they meet the academic requirements and enroll in a minimum of 6 FRA credits per semester. Canadian students and International students enrolled in French courses in a degree program can pay Quebec tuition fees for the French courses only. Students holding French citizenship commencing their studies at Bishop's for Fall 2015 will pay Canadian tuition fees. Excluded: Students in a Non-Degree program and International Business students starting Fall 2017 going forward.

| Example of 2020-2021* Tuition and Compulsory Fees ( 15 credits): <br> *(based on 15 credits per semester and not including other compulsory or incidental fees) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| *Fees are subject to change. Tuition |  | Compulsory Fees |  | Total per Semester | Total Fall \& Winter |
| Canadian F ees: |  |  |  |  |  |
| Quebec resident .................................. \$1,311.43 | + | \$784.42 | = | \$2,095.86 | \$4,191.71 |
| Out-of Province......................................\$4,093.18 | + | \$784.42 | = | \$4,877.61 | \$9,755.21 |
| International fees Indergraduate |  |  |  |  |  |
| Business (2016 \& earlier) ......................\$11,279.55 | + | \$784.42 | $=$ | \$12,063.98 | \$24,127.95 |
| Business cohort 2017...........................\$10,500.00 | + | \$784.42 | = | \$11,284.42 | \$22,568.85 |
| Business cohort 2018............................\$11,250.00 | + | \$784.42 | = | \$12,034.42 | \$24,068.85 |
| Business cohort 2019............................\$12,124.95 | + | \$784.42 | = | \$12,909.37 | \$25,818.75 |
| Cohort 2020 all disciplines ...................\$12,250.00 | + | \$784.42 | = | \$13,034.42 | \$26,068.85 |
| Science, Mathematics, Computer Science, |  |  |  |  |  |
| Drama, Music, Fine Art ........................\$10,093.85 | + | \$784.42 | $=$ | \$10,878.28 | \$21,756.55 |
| Other disciplines ...................................\$9,036.82 | + | \$784.42 | = | \$9,821.24 | \$19,642.49 |
| International fees Graduate |  |  |  |  |  |
| Course-based graduate program ............\$9,036.82 | + | \$784.42 | = | \$9,821.24 | \$19,642.49 |
| Course-based grad. Cohort 2020.......... \$12,250.00 | + | \$784.42 | = | \$13,034.42 | \$26,068.85 |
| Thesis-based graduate program .............. $\$ 8,980.53$ | + | \$784.42 | = | \$9,764.95 | \$19,529.90 |

(*) A mandatory health insurance fee is charged for the international students

## Payment of Fees

School Fees must be paid in full before the start of each semester. The due dates are as follows:

## Fall Semester <br> September 30 <br> Winter Semester .January 31

A late payment fee of $\$ 65$ will apply for all payments made after September 30 for the Fall and Jan. 31 for the Winter. Delaying payment may also result in limited course availability. Students with outstanding fees and balances are charged interest on their outstanding balance at the end of each month at a rate of $15 \%$ per annum (1.25\% per month). Failure to pay outstanding balances of tuition, residence, or any amount due to Bishop's University will result in the withholding of transcripts and diplomas, the suspension of re-enrollment or other measures.

Payment of fees should be made based on a 15-credit full load or according to the credits the student will take. If students register in extra courses or labs, they can pay the extra fees up until the Add/Drop deadline.

## Methods of Payment

Payments may be made by cheque (Cdn or US Funds), with on-line banking (BMO, Desjardins, CIBC, National Bank, RBC, Scotia Bank or TD) or by debit card or cash at our office. International students can pay using flywire to make their payment transfer.

## Refunds

1. Any student who withdraws in writing from the University before the deadline date for dropping and adding courses is entitled to $100 \%$ refund of fees less a withdrawal fee of $\$ 80.11$. After this date there will be no refund.
2. Should a student leave the University due to illness and not return during the semester, a refund of $50 \%$ of the pro-rated tuition fees only will be allowed, provided that a doctor's certificate is attached to the withdrawal form and forwarded to the Records Office. Withdrawal forms may be obtained through the Records Office.

## Compulsory Fees

The Registration fee covers services for program changes and Add/Drop course processing. The Administration fee helps to cover the costs of convocation, student financial aid service, scholarship management, requests for transcripts and various confirmation letters requests by students. The Student Services fee provides free access to the following general services on campus: Health Clinic, Counseling Services, Career and Employment Office, Disability Office, Campus Ministry and Student Affairs. The Student Services fee also supports Campus Security and the Creative Arts. The Student Fees provide for full membership and voting privileges in the Students' Representative Council (SRC), publications, student rates for athletic events, etc. Firstyear students starting in the Fall Semester are charged \$87.02. fee ( $\$ 26.68$ in winter) to cover orientation week activities. Fees do not cover insurance on personal belongings. Technology fee helps to maintain and improve the technology environment which supports a student's learning experience at Bishop's. The Sports Centre access fee provides students full access to the Sports Centre. The only exceptions are recreational courses, towel and laundry service.

## Exchange Students

Exchange students are required to pay for their residence, meals, books, supplies, medical insurance and any specific course related fees.

## Medical Insurance

Quebec Immigration authorities require that all international students studying in the province of Quebec subscribe to a health insurance plan provided by Bishop's University for themselves and their dependents coming with them to Quebec. Please advise the Business Office if you need additional coverage for your family once you arrive.

International students, including Exchange students, must subscribe to the Health Insurance plan offered through the University. Student accounts will be charged insurance each semester for a
total of $\$ 1077$ a year. Please refer to the insurance plan details for information and limitations of coverage: www.ubishops.ca/ school-fees/international-students/home.html. Students covered by private health insurance are not exempt from the University plan and must enroll.

The following countries have reciprocal medical coverage with the province of Quebec: France, Denmark, Sweden, Norway, Finland, Luxemburg and Portugal. To benefit from an exemption from the University plan, students from those countries listed must apply to the Régie d'assurance maladie du Québec (RAMQ) upon arrival in Quebec and present a valid Quebec Medicare card to the Business Office. Please refer to: www.ubishops.ca/academic- pro-grams/international-exchange/international-students/health-insurance.html for more information. All exchange students will be charged the insurance premium while registered. A refund may be eligible when their RAMQ card and letter are shown at the Business Office as soon as they are received.

## Residence Fees (subject to change)

The room-only portion of the residence fees during the academic year varies from $\$ 540$ per month for a double room to $\$ 699$ per month for a single room with semi-private bathroom. All residents must select a meal plan. Meal plan rates vary from $\$ 620$ to $\$ 647$ per month. Additionally, a $\$ 41$ per month communication fee is charged to each residence student. (Residence costs may be paid over eight monthly installments). There is an additional charge of $\$ 50$ per year for residence activities. Further details about residence life activities are available on the residence website.

Residence accommodation is not typically provided during the break between semesters, however, for extenuating circumstances please contact residence services at residence@ubishops.ca to request to remain on campus. Meals are not provided during this break so students who remain on campus will be responsible for their own meals.

Residents may occupy their room on the official opening day of Residence each semester and must vacate them no later than noon on the day following completion of their last examination each semester.

Students planning to arrive on campus after the official opening date must notify Residence Administrative Services of this in writing in order to retain their room allocation.

## Student Aid

Bishop's University, through its Foundation, offers scholarships, awards and bursaries. You can visit our website or consult the Scholarships, Loans, Bursaries and Awards section of this Calendar. Student aid is also available through government loans. Quebec residents apply for Quebec Loans \& Bursaries and Canadian residents apply for government loans with their own Ministry of Education. For more information visit www.canlearn. ca.

## Other Miscellaneous Fees

Application Fee (non-refundable) \$65.00 (All students)
Art Course - Print Making (per semester) ............................. $\$ 70.29$
Art Course - Sculpture (per semester).................................... \$35.15
Art Lab Supervision fee ....................................... $\$ 16.90$ per course
BUCS (B.B.A., Bus.Maj.) (per semester)................................. $\$ 20.00$
Confirmation fee deposit (new students only) ................... \$350.00*
Drama Production fee ........................................... $\$ 45.07$ per course
Education speaker's fund (Fall only) .......................................... \$10.00
Field trips and conferences ..................................................... at cost
Late payment fee (full-time)................................................ $\$ 65.00$
Late registration fee (full-time) .......................................... $\$ 100.00$
Late registration fee (part-time)........................................... $\$ 10.00$
Medical Insurance for International Students
(12-month coverage). .$\$ 1077.00$
Music: Practicum surcharge
MUS 170-270-370/171-271-371 (per semester).............. $\$ 385.92$
MUS 172-272-372/173-273-373 (per semester)............. $\$ 514.56$
MUS310/311 (where applicable) 374/375/376** (per hr) .. $\$ 51.46$
MUS 455 (per semester)............................................... $\$ 514.56$
MUS 378/379** (per semester) .................................... $\$ 385.92$
MUS 475 (per semester)............................................... $\$ 542.99$
**These courses with tutoring are not mandatory for the Music program but can be chosen as an elective that will count towards the degree. Speak to the chairperson of Music for details.
NSF cheque fee. \$25.00
Practice Teaching surcharge
EDU 128/129 (per semester) .......................................... $\$ 58.58$
EDU 328/329 (per semester) ........................................... $\$ 261.36$
EDU 428/429 (per semester) ......................................... $\$ 287.28$
EDU 227/228/229 (per semester).................................... $\$ 58.58$
Fine Arts Studio - Digital Imaging fee
FIS 182, 296ab, 302ab (per semester) .............................. $\$ 54.85$
FIN 218ab, FIN 348ab (per semester).............................. $\$ 54.85$
FIS 175/275(per semester) ............................................ $\$ 35.15$
ENG 383 (per semester) ....................................................... $\$ 54.85$
Replacement of Identification card ..................................... $\$ 16.02$
Re-reading of an examination by external evaluators .......... $\$ 64.61$
Re-reading of thesis........................................................... $\$ 63.43$
Sports Centre Access Fee (per semester)............................... $\$ 45.75$
Student Fees SRC (Spring/Summer session) ......................... $\$ 18.48$
Student Fees SRC Fall and Winter (8 credits and less).......... $\$ 31.13$
Student Services (Spring session) ........................................ $\$ 40.56$
Supplemental examinations

- each paper (non-refundable)..................................... $\$ 53.41$

Supplemental examinations written off-campus

- each paper (non-refundable). \$83.48
Tax receipts - each duplicate copy ....................................... $\$ 5.34$
Thesis Pending M.Sc. (per semester) .................................... $\$ 403.65$
Thesis Pending (not M.Sc.) (per semester) ........................... $\$ 87.43$
Additional copies of transcripts........................................... $\$ 5.87$
Withdrawal fee from the University (full-time)...................... $\$ 80.11$
Williams School of Business Student Activity Fund
(Maj. Bus.) (per semester) \$28.16
${ }^{(*)}$ ) Only $\$ 100$ is refundable if the student has notified the Admissions Office in writing before September 1st.
For any information regarding the above, you may contact the Registrar's Office at:

$$
\begin{aligned}
& \text { Tel.: } 819-822-9600 \text { ext. } 2655 \\
& \text { Fax: } \quad 819-822-9661 \\
& \text { E-mail: businessoffice@ubishops.ca } \\
& \text { Website: www.ubishops.ca }
\end{aligned}
$$

## University Regulations

## Academic Integrity

## 1. Preamble

1.1 Bishop's University is committed to excellence in scholarship. All members of the University community have a responsibility to ensure that the highest standards of integrity in scholarly research are understood and practiced.
1.2 The University takes a serious view of any form of academic dishonesty, such as plagiarism; submission of work for which credit has already been received; cheating; impersonating another student; falsification or fabrication of data; acquisition of confidential materials, e.g. examination papers; misrepresentation of facts; altering transcripts or other official documents.

## 2. Plagiarism

2.1 Plagiarism is a kind of academic dishonesty in which an individual uses the work of another without appropriate acknowledgement. Plagiarism includes but is not limited to the following practices:

- Using another's work without acknowledgement
- Copying material without quotation marks
- Paraphrasing too closely the exact words of the originating author
- Submitting work written in whole or in part as one's own by another individual.
2.2 The following practices related to plagiarism are also prohibited:
- Helping another student plagiarize
- Submitting in whole or in part work for which the student has received credit in another course, unless the permission of the instructor has been obtained
- Submitting any statement of fact known to be false or providing a fabricated reference to a source.

3. Procedure in Alleged Cases of Academic Misconduct:
3.1 The instructor will meet with the student and reach a decision concerning the matter. In the event that a sanction beyond a warning is required, the Dean will be informed.
3.2 In a repeated or particularly serious case, or if the student disputes the decision of the instructor, the Dean will be informed. If necessary, the Dean will meet with the student and the instructor. Another member of the University community may accompany the student. The Dean will make the final decision in the case, including the assignment of a penalty, if any. If the decision is that the student is guilty of academic misconduct, the Dean will inform the student in writing and send a copy of this letter to the instructor and to the Registrar. The student may appeal the decision to the Academic Review Committee. See Academic Reviews and Appeals, below.

## 4. Penalties

The normal penalty for a first offence is a zero grade in the component of the course in which the dishonesty occurred. However, in a case of particular seriousness, or in the case of a repeated offence, penalties may include a zero grade in the course, a notation placed on the student's academic transcript, suspension for one semester or longer, or expulsion from the University. A penalty of suspension or expulsion will automatically include a notation on the student's transcript to that effect.

## 5. Transcript Note

If a notation on the transcript is appropriate, the notation will say "Disciplined (or "suspended", or "expelled") for academic misconduct."
A student who has been disciplined or suspended and received such a notation on their transcript may, in the last year before graduation petition the Academic Standing Committee in writing to have the notation removed from their transcript. The decision to remove would be based primarily on evidence of exemplary academic conduct by the student since the offense was committed, or since their return to the University; it would not be granted automatically.

## Academic Reviews and Appeals

## Academic Review

A student's academic progress or standing is evaluated in conformity with Departmental, Divisional, School or Senate regulations governing courses, programs, examinations and degrees.

If a student has an issue which pertains to a specific course, the student shall first discuss the issue with the course instructor. This must be done as soon as possible, and no later than one month after the beginning of the next regular semester following the academic decision.
(NB: Students may seek the advice of the University Ombudsperson, at this stage or any later stage, in the review process. The ombudsperson works as a trusted intermediary to review complaints of all members of the university who believe they have suffered an injustice.)

Unless prohibited by a specific committee policy, students may request a review of any academic decision or a re-evaluation of any course component(s) which calls into question their academic integrity and/or is worth at least $25 \%$ of the final grade of a course subject to the Academic Review guidelines.

If the issue cannot be directly resolved between the faculty member and the student, the student may take the matter to the Dean of the Division in which the course was offered within 30 days of the initial meeting with the faculty member. If the matter does not concern a specific course, the student must appeal directly to the Dean in charge of the Division or School in which he or she is enrolled.

If the Dean decides that the issue has no merit the student may either accept that decision or appeal to the Academic Review Committee.

If the Dean determines that the issue has merit, he or she will proceed, within two weeks, to seek a resolution informally through discussion with the student, the faculty member and/or the Chair of the department in question. If the student so chooses, the ombudsperson may be present for any or all discussions. If the issue cannot be thus resolved by the Dean, he or she may impose a solution. In the case of a dispute over a grade, the Dean may authorize the re-evaluation of any course component(s) by an impartial examiner (Fee: $\$ 55$, reimbursed if the re-evaluation results in a higher mark). In certain situations, the Dean may recommend that the student appeal to the Academic Review Committee. In the case of a re-evaluation of a course component, the grade assigned by the reviewing examiner shall become the official grade for that component and the final course grade adjusted accordingly.

In this context, any decision of a Dean may be appealed to the ARC by the student, given clear grounds for such an appeal.

For cases in which the informal resolution process and the intervention of the Dean is inconclusive or there exists a need for a more formal review of an academic matter, Senate has established two committees, the Academic Review Committee (ARC) and the Academic Appeals Committee (AAC) to deal with the formal review of all academic matters. The University Senate delegates to these Committees the authority to render decisions on all academic matters as well as the authority to implement additional procedures consistent with those set out below.

The function of the Academic Review Committee is to hear complaints against any academic decision taken in the University by a faculty member, a Departmental Chairperson, a Dean or the Vice-Principal, and to adjudicate all infractions of University academic policy referred to it by any member of the University community. The function of the Academic Appeals Committee is to hear appeals against decisions made by the ARC (see below for the specific grounds for appeal). The decision of the AAC is final and binding on all parties.

## The Academic Review Committee

The Academic Review Committee (ARC) shall consist of five voting members: two faculty members, who shall be members of Senate and chosen by the Senate Nominating Committee, two students who shall be members of Senate and chosen by the Senate Nominating Committee, and one academic officer of the University, (Dean or Vice-Principal) who shall be named by the Chair of Senate (the Principal). Three alternate members shall also be selected by the Senate Nominating Committee; two students and one faculty member. The ARC shall elect annually a Chairperson whose name will be communicated to the Secretary of Senate.

Note: For eligibility rules concerning members who may sit on the ARC as well as further procedures regarding the Committee quorum, procedures in committee, documents, onus and standard of proof, please refer to Appendix I, below.
(i) The Committee year extends from May 1 through April 30 of the following calendar year. The Committee shall remain constituted for the entire year.
(ii) Faculty members shall serve a term of two years, renewable once, after which they must step down for at least one full year. Student members shall serve a term of one year, renewable once. Senate shall make provisions (through its

Nominating Committee) for timely replacement of members whose terms are expiring.
(iii) The Committee is authorized by Senate to select which alternate members will replace regular members who must leave the Committee before the end of their term or who are unavailable during the summer months.

## Powers

The Academic Review Committee shall have the following powers:
(i) review any academic decision taken by a faculty member, a Departmental Chairperson, a Dean or the Vice-Principal.
(ii) review any infraction of University academic policy, including all matters governed by Department, Division, School and Senate regulations.
(iii) review any complaint regarding interference with the University's academic operation.
Note 1: The ARC does not have jurisdiction over the following areas: admission to the University, re-admission, probation and academic standing issues (including "must withdraw" decisions) and scholarship decisions. These areas are the purview of the Academic Standing/Admissions Policy (ASAP) Committee.
Note 2: Before the ARC will accept jurisdiction for decisions concerning grades, there is a separate procedure for the review of marks obtained in final exams and in other components of a course. This procedure must be followed first.

## Making a Request to the Committee

The Academic Review Committee will consider a request for review only after:
(i) The receipt by the Committee Chairperson of a written and signed notice of request filed within 30 days of the time that the most recent academic decision concerning the matter in dispute has been communicated in writing to the student. Requests for review must include: a complete specification of the wrong to be corrected, the specific grounds for the request for review and the remedy sought. In the case of a request to review a general policy or regulation, the written, signed notice may be made at any time. In all cases, requests for review of any academic decision must be initiated before the marks deadline of the semester following the completion of the course in question.
(ii) Before proceeding with a request for review of any matter, the ARC Chairperson will request a written assurance from the Dean and Ombudsperson that all reasonable efforts have been made to solve the dispute at an earlier level.
(iii) Within seven working days of receipt of the notice of request for review, the Chairperson will acknowledge the same in writing to the complainant(s).
(iv) Within ten working days, the Chairperson shall convene an initial meeting of the ARC and give a five-day notice to all parties of the date of the initial meeting.

## Disposition of the Committee Decision

(i) Decisions shall be made by simple vote of the Committee; three positive votes are necessary to carry any decision. The tally of all votes shall be recorded in the minutes.
(ii) During the course of a review, no changes shall be made to any mark or grade in question, nor to any student's current status, nor to his/her eligibility for a given program.
(iii) The Academic Review Committee shall render a decision on a review within 60 calendar days of receipt of the request for review.
(iv) The Chairperson of the Committee will report its decision to the complainant, the defendant, the Chair of Senate (the Principal) and the appropriate Dean within five days of the rendering of the decision.
(v) If the decision is not taken to appeal (see below), the appropriate Dean will be responsible for the implementation of the final decision. At least 30 days will be allowed for the implementation of the decision by the individual University office involved.

## Academic Appeals

The Academic Appeals Committee (AAC) shall consist of three members: one faculty member who is not a member of Senate named by Faculty Council, one student who is not a member of Senate named by the SRC, and one Academic Officer of the Senate (Dean or Vice-Principal) named by the Principal. Two alternate members shall also be named, one faculty member and one student. The regulations for the term of office, length of the Committee year, election of the Chairperson, eligibility, extension of term, and replacement of members, shall be the same as those for the ARC (see above).

Where an appeal of the decision of the ARC has been submitted, the Senate shall either:
(i) Receive and accept the report of the ARC.
(ii) Receive the report of the ARC and refer the case to the AAC. In both cases debate on Senate's decision must be held in camera and any member of Senate who is a party to the case must excuse him- or herself from the discussion. The content of the debate shall be confidential and Senate shall limit itself to discussion of material contained in the report of the ARC and the request for appeal. Members of Senate who are also members of the ARC shall abstain from voting.

## Filing an Appeal

(i) An appeal against a decision of the ARC must be filed with the Chairperson of the AAC within 30 days of the decision rendered by the ARC.
(ii) The appeal may be from either complainant or defendant but in either case shall be written and signed and state specifically the grounds for appeal, the remedy sought and include all of the documents (written and oral) used by the ARC to achieve its decision.
(iii) Unless there is compelling need for further clarity, no new documents will be considered by the ACC that were not before the ARC.
(iv) Before proceeding to hear an appeal, the Chairperson of the AAC will, within seven working days of the request for an appeal, acknowledge the request for appeal, notify both parties and within ten working days convene a meeting of the AAC. Five days notice will be given to both parties of the date of the first meeting of the AAC.

## Grounds for Appeal

The Academic Appeals Committee has the power to hear an appeal from a decision of the ARC for the following reasons:
(i) Errors of fact in information used by the ARC which could affect the decision rendered,
(ii) New evidence not available to a party at the time the decision of the ARC was made,
(iii) Errors of interpretation of any University academic policy or regulation,
(iv) Serious procedural error,
(v) Action by the ARC beyond its jurisdiction.

## Procedures

(i) The regulations with respect to: procedures in Committee, documents, onus and standard of proof set out in Appendix I for the ARC, will apply mutatis mutandis for the Academic Appeals Committee.
(ii) The AAC will hear testimony from the Chairperson of the ARC where significant procedural error is alleged as the grounds for appeal.
(iii) The AAC will have access to all recorded testimony, documents and minutes of the ARC.

## Decisions

(i) Decisions shall be by simple vote of the Committee; at least two positive votes are necessary to carry any decision. The tally of all votes shall be recorded in the minutes.
(ii) The AAC may decide to return the case to the ARC for further review. Alternatively, it may uphold the decision of the ARC or fashion any other remedy as it sees fit.
(iii) The AAC shall render a decision on the request for appeal within three months of the request for appeal.
(iv) The Chair of the AAC will report its decision to the complainant, the defendant, to the Chair of Senate (the Principal) and to the appropriate Dean(s) within five working days of the rendering of the decision.
(v) The decision of the AAC will be final and binding on all parties.

## Appendix I: Rules and Procedures

## 1. Eligibility

The eligibility of students, faculty members, Deans and the VicePrincipal who sit on either the ARC or on the AAC is restricted as follows:
(i) Individual members cannot sit on both Committees,
(ii) No individual member of either committee can serve if they are involved in the case as plaintiff, defendant or witness,
(iii) No individual member can serve on either committee who has been found guilty of an academic offence,
(iv) No individual member can serve on either Committee who is in a position of bias or conflict of interest (financial gain, kinship relation, close personal relationship),
(v) All student members who serve on either Committee must be in good academic standing in their program at the time they are elected to the Committee concerned.

## 2. Quorum

A quorum shall consist of two student members and two faculty members and one academic officer of the University (or the alternate). Every effort shall be made to assume that a consistent quorum of members follows each case to its conclusion. The Committee is authorized to extend the terms of members for this purpose. The Committee shall elect annually a Chairperson whose name will be communicated to the Secretary of Senate. Senate shall make provision for a Committee secretary who will record the minutes of all meetings. The Secretary shall not participate in the discussions and shall not have a vote.

## 3. Examples of matters that can be reviewed by the ARC:

(i) All matters of academic integrity after a decision by the appropriate Dean has been rendered,
(ii) Program eligibility, program transfer, program requirements,
(iii) Requirements for the degree,
(iv) Credit for studies elsewhere,
(v) Deferred status for exams or course components,
(vi) Requests for supplemental exams,
(vii) A mark or a grade in a course, final standing in a course after the procedures for external re-reading of exams or course components have been completed,
(viii) Grading practices after a decision by the appropriate Dean has been rendered,
(ix) Any infraction of Department, Division or Senate regulations,
(x) Any complaint regarding interference with the academic operation of the University.

## 4. Procedures in Committee

(i) The Committee shall conduct its meetings in camera.
(ii) Both complainant and defendant(s) have the right to be accompanied by a representative of their choice; this representative shall be any full-time member of the University community.
(iii) The University, if it so decides, may appoint a legal advisor to assist the Committee. Such an advisor shall be considered a neutral observer in the proceedings of the Committee and shall not vote.
(iv) Both complainant and defendant have the right to make representation in the manner decided by the Committee.
(v) The parties to the dispute shall be interviewed separately by the Committee in the first instance at which time they may make oral representations and refer to the relevant evidence (see documents below). This procedure does not preclude a face-to-face meeting if all parties agree.
(vi) General minutes shall be taken of the meeting and the testimony of witnesses and of all motions of the Committee. Copies of the minutes will be provided to all parties.
(vii) All oral testimony given by witnesses will be recorded on audio tapes which will be made available to the complainant and the defendant and to which they may respond in writing within five days of receiving a copy of the tape.
(viii) All written and oral testimony, evidence and minutes of the Committee are confidential to the Committee and to the parties involved in the dispute. Deliberations of the Committee are confidential to the Committee.
Each Committee shall establish its own modus operandi, however, the following sequence is a general guideline:
(i) Introduction of the complainant, defendant, members of the Committee,
(ii) Review of documentation,
(iii) Rulings on documentation or further evidence necessary,
(iv) Statement by the complainant, questions from members of the Committee,
(v) Statement by the defendant, questions from members of the Committee,
(vi) Re-calling of the complainant and defendant for clarification of information only by members of the Committee.

## 5. Documents

(i) Copies of all documents submitted by each party will be made available to members of the Committee, to the complainant and to the defendant one week before the hearing date.
(ii) University records such as transcripts, student files, office correspondence as well as all Departmental, Divisional and Senate regulations are automatically evidence before the Committee.
(iii) All documents provided by either party will become evidence for the Committee unless one party objects on the grounds that such documents are forged or false or made with malicious intent. Such documents may become evidence before the Committee only after the Committee receives written confirmation of their authenticity by the original author. The Committee reserves the right to accept or reject all documents.
(iv) The Committee will request written evidence and testimony from all parties to the dispute as well as from the appropriate Dean and from the Ombudsperson.
(v) The Committee shall reserve the right to invite and receive written and/or oral evidence from any other party, to request and receive any other document it deems may assist in its deliberations and all such evidence shall be made available to the parties in the dispute.
(vi) In the case of new documents brought to the Committee during the hearing, both parties and all members of the Committee will have the right to review such documents before proceeding with the case.
(vii) Following the Committee's final decision in the case, all documents, including the written evidence submitted by the parties to the dispute and the taped oral testimony, will be
retrieved by the Chair and, together with the minutes, shall be deposited with the Office of the Vice-Principal and shall be made available to the parties in the dispute.
(viii) The Vice-Principal's assistant will number all documents, arrange them in chronological order and provide for their safe-keeping until such time as a further appeal is sought (see AAC below) or for a period of one year, whichever is applicable.

## 6. Onus

i) The onus is on the complainant to demonstrate that the ruling or decision in question is inappropriate or unreasonable. The exception shall be in cases of academic dishonesty where the onus is on the faculty member (or the University) to demonstrate that an academic offence has been committed.
ii) In cases regarding the waiving of Departmental, Divisional or Senate regulations, where the grounds for such a request are either medical, compassionate or other extenuating circumstances as decided by the Dean of the Division concerned, the onus is on the complainant to demonstrate that following the particular regulation in question was impossible. In such cases, documents attesting to the status of the student must be provided in a timely manner, must be specific and must demonstrate that such grounds do in fact exist.

## 7. Standard of Proof

Unlike the standard of proof commonly used in criminal cases and usually known as "proof beyond a reasonable doubt", the standard of proof to be used by the Committee will be the "balance of probabilities" or "preponderance of evidence". By this is meant "more likely than not" in the sense that an unbiased observer, having reviewed all the evidence and having heard all sides of the story, should be able to say: "the fair decision in this case is ' X ' more likely than not".
In alleged cases of academic dishonesty or in other cases which call into question the very nature and operation of the University, the balance of probabilities, when used as the standard of proof, needs to be at the higher end of the scale and must be based on clear and compelling evidence.

## Ombudsperson

The major role of the Ombudsperson is to receive complaints from members of the University community who believe that they have suffered some form of injustice, particularly of an academic nature. After examining the factual basis of these complaints and determining that all normal avenues of recourse and appeal have been exhausted, the Ombudsperson investigates these complaints and facilitates their solution either using existing procedures, both informal and formal, or by recommending changes to the existing procedures. The Ombuds Office operates independently of all other offices in the University and may make recommendations in specific cases or recommendations pertaining to the changing of any rule, policy, regulation or procedure which he/she deems appropriate. The objectives of these recommendations will be either to solve an individual problem or to improve the overall operation of the University. The Ombudsperson must investigate all sides of a particular problem, must maintain a neutral stance throughout the investigation and must strive to achieve solutions
which are as fair and just as possible given the circumstances involved. At the end of an inquiry, the Ombudsperson will explain the nature of the chosen solution to those who initiated the complaint or, where the complaint has been found to be not justified, explain to the individual or groups involved the reasons for not continuing the investigation. From time to time, the Ombudsperson may also act as a mediator between individuals or groups of individuals in the University community who have been unable to resolve a conflict, particularly where no procedure exists for the resolution of such matters.

Please see the University Website for further information and the complete text of the terms of reference for the Ombudsperson.

## Selection of Courses

Students are responsible for ensuring that their selection of courses conforms with the general requirements of university programs, the general and academic regulations of the University, and the specific requirements of the specialization of their choice. In planning their annual course choices, students are urged to consult with the appropriate Departmental Chair and Dean.

The programs have been designed to permit the most effective study in a discipline or subject by the majority of students. Nevertheless, changes may be appropriate for particular students because of specific objectives, background, etc. Students who wish to alter their program must consult the Chairperson of the department and the Dean concerned, preferably before registration. It should be noted that constraints are imposed on possible changes in programs by the timetable of courses.

A normal course load is 15 credits per semester. Thus, a 120 -credit program can normally be completed in four years of fulltime study. Students admitted on the basis of the CEGEP Diplôme d'études collégiales (D.E.C.) are normally granted 30 credits of advanced credits, reducing a 120 credit requirement to 90 credits or three years of fulltime study.

## Confidentiality of Student Information

In conformity with Article 65 of the Quebec legislation concerning access to public documents and confidentiality of personal information, Bishop's University informs its students that all personal information collected in the course of admission and registration of a student will be kept confidential, except where specific permission is given to release it.

Students are obliged to provide information which is requested by the administrative offices of the University. The University may only request information which is essential to its operation; refusal to provide this information may lead to denial by the University of services to the student.

In signing the application form, all students agree that the information contained in it, and in their student file, may be made available to those administrators charged with management of their academic and financial affairs while they are at Bishop's University. No information will be released to other persons without express permission of the individual concerned, except in circumstances involving the safety and security of the individual or a breach of the law.

Any student may consult his or her file during regular office hours and may request that any errors found in the file be corrected. If necessary, a formal request for correction may be made in writing to the Registrar.

## Discipline

Students are expected to conduct themselves in all places and at all times in a manner appropriate to members of a university. Failure to do so may result in disciplinary action. In accepting admission to the University, a student is agreeing to abide by, and be subject to, its regulations. The Charter of Student Rights and Responsibilities provides a framework for such a commitment. The University reserves the right to suspend or dismiss any student for misconduct or for serious infractions of university regulations. Such action will result in the loss of course work for the semester in which the suspension or dismissal is imposed.

Matters of discipline are adjudicated by the Committee on Student Conduct which is chaired alternately by the Dean of Student Affairs and the Director of Residences and Conference Services depending on whether the issue is judged to be primarily residential in nature or of a broader import. The committee comprises, in addition, six students representing both on and off campus constituencies. The Committee on Student Conduct is empowered to take note of and to judge matters of student conduct, excluding academic issues, referred to it by any member of the University. All recommendations are forwarded to the presiding Chairperson for consideration and final decision. Exceptions to this are limited to recommendations for suspension or expulsion from the University which are forwarded directly to the Principal. In addition, a Joint Disciplinary Council composed of a balanced set of delegates from each of the Bishop's and Champlain College communities is mandated to deal with situations which involve students of both institutions.

## Policy on Harassment

Living in a university environment entails respect for the welfare and dignity of others. Harassment of any kind is intolerable, and we share the responsibility of promoting a climate of education, support and understanding. The University has developed policies and procedures for dealing with sexual and other forms of harassment. The Committee administering this policy includes representatives of all constituents of the University; the policy document is posted on the Bishop's Website and can also be obtained from the Principal's Office.

## Students' Responsibilities

Students are required to abide by reasonable instructions given orally or in writing by any official of the University authorized to secure compliance with regulations, rules, practices and procedures. They should carry proper University identification (student card) at all times and be prepared to show it at the request of any individual acting in an official capacity (such as University security officers, police officers or student residence staff).

Students have a responsibility to attend lectures and laboratories and to perform punctually all academic assignments in accordance with the standards prescribed by the departments concerned and announced by the instructors at the beginning of the year. Failure to fulfil these requirements may lead to debarment from examinations. Protracted absence from the University may involve debarment from courses.

Students are required to return promptly after holidays and are requested not to make travel plans which will interfere with registration or examination schedules.

## Professors' Responsibilities

Before the Add/Drop deadline of each semester, teaching staff will provide in writing to students in each of their courses a course outline containing:

1. A list of the required textbooks, readings (or material) to be covered in the course;
2. A general outline of the topics to be covered;
3. A schedule of term assignments and tests;
4. A description of the evaluation procedures to be used.

Academic staff members are required to establish and post office hours during which they are available for individual consultation with students.

The document "Policies regarding responsibilities of academic staff to students" is posted on the Bishop's Website and is also available from the Registrar's Office.

## Students' Official Address

In order to ensure timely and efficient communication with students, the University will use the following as the "official address" for students:
a) The student's home address on file in the Registrar's Office, unless the student has provided a temporary address by informing the Registrar's Office directly;
b) At any time, the Bishop's University e-mail address will be deemed to be the "official" one for communications from the University to students, and students are responsible for ensuring that they are able to receive these communications;
c) Students are responsible for checking Bishop's e-mail at least once each week during the academic semester while in attendance at the University.

## REGULATIONS FOR BACHELOR'S DEGREES

## General Academic Requirements

## Bachelor of Arts, Bachelor of Sciences, Bachelor of Business Administration:

A degree may be earned by means of one of the following kinds of programs selected from among those offered in this Calendar:

1. Honours in an academic discipline. Honours programs entail a very high degree of concentration in a subject and require a high standard of academic performance. These programs are especially suitable for those who plan to proceed to graduate study. A Major or Minor in a second discipline may be combined with an Honours.
2. A Major in an academic discipline or interdisciplinary subject. Major programs require less concentration in a subject than Honours programs and provide greater scope in the selection of optional subjects. A Major in one discipline may be combined with a Minor in a second discipline or with a second Major where the requirements of both can be satisfied.
3. Major in a group of disciplines encompassed by a Division of the University (e.g. Natural Sciences). This type of program is designed to permit maximum flexibility of study within a Division while ensuring, at the same time, a useful level of
concentration in one or two disciplines. A Divisional Major may be combined with a Minor, or in some cases a Major, in a discipline outside of that Division.
4. Minors in two academic disciplines. This type of program involves less in any one subject than the Major or Honours. Degrees consisting of double or triple Minors may be granted as Bachelor of Arts degrees. To graduate with a double or triple Minor, students must normally complete all the requirements for each Minor program as stipulated in the Academic Calendar. However, in cases where there are common course requirements, for a double Minor, a maximum of 6 credits may be double-counted (i.e. applied to both Minors); for a triple Minor a maximum of 9 credits may be double-counted (i.e. applied jointly to the three Minors).

In each case, courses must be completed in addition to those required by the selected Honours, Major or Minor combination in order to fill the minimum credit requirement indicated in a letter of admission or in a letter indicating a credit requirement change necessitated by a program change.

Successful completion of a program is determined by the department/program and the Dean, in accordance with the Academic Calendar regulations in effect either when the student entered a program or in the student's graduating year.

Students with a failing cumulative average (i.e. below 50\%) will not be eligible to graduate from the University.

## Additional Requirements

1. All undergraduate students who began their studies before fall 2019 must successfully complete the English Writing Proficiency requirement in order to be eligible to graduate.
2. The credit requirement indicated in a letter of admission, or in a letter indicating a credit requirement change necessitated by a program change, is the minimum requirement. A completed program must include all required courses/labs of the selected Honours/Major/Minor program(s) as described in the relevant Academic Calendar, which may exceed the minimum.
3. A student may not be required to follow more than 12 course credits, excluding lab credits, in any one discipline during the first 30 -credit program year. This will permit the choice of a Major or Honours program from at least two fields of study.
4. $50 \%$ of degree credits (i.e. a minimum of 60 credits) must be obtained from Bishop's University. A recognized student exchange, completed at an approved university, counts as credits completed at Bishop's University.
5. Following admission to Bishop's University, a student may normally complete no more than two semesters or attempt more than 30 credits, not including laboratory credits, at other universities during the completion of a Bishop's degree. These courses will be recorded as pass or fail on a student's transcript.

## General Academic Requirements

## Bachelor of Education

1. A B.Ed. degree may be earned by the successful completion of the approved courses and the practica required by the degree program.
2. Following admission to the B.Ed. program, all course requirements for the program must normally be completed at Bishop's.
3. Upon successful completion of the B.Ed., graduates are recommended to the Ministère de l'Éducation et Enseignment supérieur of the province of Quebec for the appropriate "brevet d'enseignement".

## Second Bachelor Degrees

Students who hold a degree may apply to Bishop's University to obtain a second undergraduate degree in a different discipline or to convert a degree in a discipline to an Honours degree in the same discipline. In all cases second degree candidates are required to:

- Complete a minimum of 30 additional credits at Bishop's University (courses taken as part of the first degree cannot be used to satisfy this requirement). Completion of courses elsewhere on a letter of permission is normally not permitted.
- Fulfill the requirements of the new Honours/Major/Minor concentration programs; divisional and elective requirements are waived.
- Complete at least one half of the chosen Honours/Major/ Minor concentration course requirements at Bishop's University within the second degree.
- Successfully complete the EWP requirement if necessary.

Students seeking a second bachelor's degree are not eligible for scholarship consideration in the Bishop's University Scholarship program.
Exempted: Bachelor of Education candidates.

## Selection of Courses

1. Students should plan their programs each semester so as to include courses which are prerequisites for courses to be taken in subsequent semesters/years. Some courses are given only in alternate years. Certain combinations of courses may be rendered impossible by the arrangement of the timetable.
2. A course for which credit is earned in any semester may be repeated once to improve the grade. No additional credit will be awarded. The initial course registration and grade will remain on the student's academic transcript, with the notation "RNC - repeat no credit" appearing beside it. The grade received in the second registration for the course will be used in the calculation of the student's average (including cumulative average) and credits awarded, regardless of whether it is the higher or lower grade. Repeated courses will not retroactively affect academic standing.
3. A student who has failed a course twice will be allowed to reregister for that course only with the instructor's permission, after a review of the student's program by the department concerned. Appeals to the decision will be processed through the regular appeals procedure. The present double failure rule
as it applies to courses offered by the Williams School of Business and the Economics Department remains in force.
4. Students who contemplate entering graduate school upon graduation should consult with the graduate school in order to ensure that they are meeting the prerequisites of the graduate program they propose to enter.

## Credit for Studies Completed Elsewhere

## Transfer Students:

## Bachelor of Education

Students may be eligible for advanced credits for the Major in Education for courses which meet the teachable subject course requirements and/or for courses which have educational content and which meet program requirements.

## Bachelor of Arts, Science, Business Administration

1. Students admitted to Bishop's following completion of a minimum of one semester at another university or college may be eligible for advanced credit granted at the discretion of the appropriate Academic Dean. The student must present complete official transcripts and course descriptions for evaluation. Transfer credit is awarded subject to the regulations governing credit for studies completed elsewhere and subject to further review should the student change programs.
2. Articulation agreements exist such that students having completed specific programs may be eligible for advance credit against a four-year Bishop's program, granted at the discretion of the appropriate Academic Dean and in accordance with signed agreements. Please consult the Admissions Office for detailed information. Although exemption may be possible, no credit will be awarded for incomplete programs.
3. College or University transfer students who have completed studies outside North America must obtain an "Attestation des équivalences" for those studies from the Quebec Ministry of Immigration. No evaluation will be made without the Attestation.
4. At least one half of the courses required to satisfy the requirements of the chosen Honours/Major/Minor program(s) must be completed at Bishop's University.
5. $50 \%$ of degree credits must be obtained from Bishop's University. A recognized student exchange counts as credits completed at Bishop's University. Moreover, approved credits attempted through the Maple League will be recognized as credits attempted at Bishop's University.
6. Credits earned as part of a Certificate completed at Bishop's University or another university may not be used to satisfy the requirements of a Minor in the same discipline at Bishop's University.
7. Each university retains the right to accept or to refuse freely the registration of a student from another university.

## Certificate Programs

A maximum of 9 university credits may be transferred to a Certificate program at Bishop's University.

## Bishop's Students:

1. Following admission to Bishop's University, a student may normally complete no more than two semesters or attempt (pass or fail) more than 30 credits, not including laboratory credits, at other universities during the completion of a Bishop's degree. Exception: Students in the Graduate Studies programs in Education may only complete a maximum of 9 credits at another recognized institution.
At least 21 of the final 30 credits of a Bishop's degree must be completed at Bishop's, leaving a maximum of 9 credits which may be completed elsewhere on a letter of permission. Exception: students participating in a recognized Bishop's exchange program.
Under exceptional circumstances, a total of 12 credits could be taken elsewhere on a letter of permission approved by the appropriate Dean.
a) Students wishing to follow studies in another institution for credit at Bishop's must be enrolled as degree candidates at Bishop's.
b) Advance permission and advance approval of all aspects of the study must be secured on the appropriate form from the Chairperson of the department in which they are concentrating their studies and from the appropriate Academic Dean. The credit transfer request form is available from the Records Office and, once completed, is placed in the student's file.
c) It is the responsibility of the student to ensure that an official copy of the transcript for the course(s) completed at another university is forwarded directly to the Registrar's Office at Bishop's upon completion of the course(s). Transcripts will automatically be sent for students studying at other Quebec universities who registered through the BCI Website for Quebec inter-university credit transfer.
d) Courses successfully completed elsewhere may only be applied as credit towards a Bishop's University degree. The grades obtained in such course(s) are not included in the calculation of a student's cumulative average and cannot affect a student's academic standing.
e) Any student who has been required to withdraw from the University may not normally complete courses elsewhere on a letter of permission.
f) Courses completed elsewhere without prior permission being obtained through the appropriate procedures outlined in this Calendar normally will not be accepted for credit towards a degree at Bishop's University.
g) Students returning to Bishop's following the completion of studies at another institution on a letter of permission must provide the Admissions Office with:
i) A written statement of their intention to return to the University prior to the beginning of the semester in which they intend to return.
ii) An official transcript of the results of these studies.
h) The academic regulations of the University, including those concerning probation and must withdraw status, apply to all Bishop's students. This includes those study-
ing elsewhere on a letter of permission (LOP) as well as those studying on the Bishop's campus.
2. Under special reciprocal agreements concluded between Bishop's University and all other Quebec universities, students in a degree program at Bishop's wishing to enroll in courses at another Quebec institution (to a maximum of 30 credits), must initiate their request through BCI's Website for Quebec inter-university credit transfer. Credits so earned will be recognized towards a degree at Bishop's if the courses/ credits are approved by the academic department or Division concerned.
Students wishing to profit from this reciprocal agreement must:
a) Ensure that the Bishop's timetable permits the desired external courses to be taken;
b) Obtain the Preliminary Credit Transfer Request Form from the BU International Office. This form must be authorized by the Departmental Chairperson, appropriate Dean and the Registrar at Bishop's. Before a student's request for credit transfer is processed, it is necessary that any outstanding accounts receivable be paid, as well as the tuition for the courses to be taken at another Quebec university.
c) Enter the request via the Internet through the BCI Website (https://www.bci-qc.ca/en/) by clicking on the button Autorisation d'études hors établissement. All required information must be entered. The system will process the request automatically, through the designated department advisors and Registrar's Offices at both institutions.
3. Each university retains the right to accept or to refuse freely the registration of a student from another university.

## Interrupted Studies

Candidates for an undergraduate degree who have formally withdrawn from the University or who have, for any reason allowed twelve months or more to elapse without earning any credits at Bishop's University must apply for readmission to the University in respect of the appropriate deadlines. See the Admission Policies section of this calendar for details.

If readmitted after studies have been interrupted for ten years or more, the assessment of credits to be applied to the student's current program will be made by the Dean in consultation with the department. The Dean's decision may be appealed to the Academic Standing Committee. While program-specific courses may be deemed to have decayed after a period of ten years, general elective courses will not normally be considered subject to decay of credits.

## Applying to Graduate

1. Candidates for degrees and certificates who expect to complete the requirements for a degree in a particular year must submit an Application to Graduate to the Registrar's Office. Normally, there will only be one Convocation ceremony per year in the Spring.
2. Students who achieve degrees with first class ( $80 \%$ or over) academic standing have the notation "with distinction" re-
corded on their transcripts and in the Convocation program. Students should check the individual Division or School sections in this Calendar for an explanation of the method used to calculate first class degrees.
3. Students with a failing cumulative average (i.e. below $50 \%$ ) will not be eligible to graduate from the University. (See Additional Graduation Requirement in Business Administration)

## Requirements for the Bachelor of Arts Degree of the Thomas More Institute

Students of the Thomas More Institute who have a Quebec collegial diploma (D.E.C.), are required to complete successfully 15 university-level courses ( 90 credits), as specified in the information booklet of the institute. Students 23 years of age or over who do not have a collegial diploma must complete three university threshold courses, in addition to the above requirement, for a total of 18 university-level courses ( 108 credits).

Details of the program and courses may be obtained from:
Thomas More Institute
3405 Atwater Avenue
Montreal, Quebec, H3H 1Y2
Tel.: 514-935-9585

## REGULATIONS FOR CERTIFICATE PROGRAMS

Certificates may be completed on a full-time or a part-time basis.

## Admission Requirements

Applicants to Certificate programs must fulfill the same admission requirements and follow the same application procedure as applicants to a Bachelor's degree in the same discipline (See Applying to Bishop's University and Admissions Policies.)

## Academic Standing -

Probation and Must Withdraw
Students in the Certificate programs must meet the Academic Standing criteria as outlined in the Academic Calendar. Students in the Certificate in Business Administration must also fulfill the requirements for maintaining good standing in Business.

## Transfer Between Certificate and Degree Programs

 Bishop's University students may make application for transfer from a Certificate to a Degree OR from a Degree to a Certificate program in the same or another discipline. The regulations governing Academic Program Changes will apply.
## Transfer of Credit to Certificate Programs

A maximum of 9 university credits may be transferred to a Certificate program at Bishop's University, subject to the regulations governing transfer of credit from other Institutions. (See Credit for Studies Completed Elsewhere.)

## Completion of a Certificate Program Following Completion of a Bachelor's Degree

Students who have completed a Bachelor's degree at Bishop's University may be admitted to a Bishop's Certificate program in a different area of study. All 30 credits required for the Certificate must be completed at Bishop's.

## GENERAL ACADEMIC REGULATIONS

1. Full-time or part-time status for each student in each semester will be determined by the student's course registration following the processing of all added and/or dropped courses. Withdrawal with permission from course(s) does not alter this status.
2. The normal registration for a full-time student in any semester is 15 course credits; the minimum number is 12 credits, including lab credits. Students following fewer than 12 credits, including lab credits, per semester normally are considered part-time students.
Exception: A student requiring fewer than 12 credits to graduate in his or her final semester may petition the Registrar in writing to retain full-time status with fewer than 12 credits.
3. The maximum course load for a full-time student is normally 18 credits per semester, not including lab credits. (Both ESL courses and EWP099 are included in the credit counts.) Subject to the general regulations set forth in the Calendar, students may be permitted to take an additional course (or courses) in excess of the requirements for a given semester with the written permission of the appropriate Dean. Students shall then have two choices:
a) They may take the additional course as a regular subject for credit; or
b) They may "audit" the additional course with the permission of the instructor and participate in class discussions and activities, but may not write the examinations or receive credit for the course. Audit courses are subject to the normal fee structure of the University and are charged in the same manner as credit courses.
Note: In both cases (a) and (b), the student must register for the course in the usual manner and adhere to the applicable deadline dates for adding and dropping courses. The course entry will appear on the student's record if the course is not dropped by the deadline date.
4. A stu dent may not be required to follow more than 12 course credits, excluding lab credits, in any one discipline during their first 30 -credit program year. This will enable them to choose a Major or Honours program from at least two fields of study.
5. Students who receive permission to register as special fulltime undergraduate or graduate (SFU, SPG or SPT students) may make such a registration for a maximum of two consecutive semesters (see Academic Program Changes). Such students must make a choice of, and be formally admitted to, an alternate degree program by the deadline for registration (normally the Add/Drop deadline) of the third semester. Students who fail to do so will not be permitted to register on a full-time basis in that semester.
6. Full-time students who do not register at the University for one semester or more for any reason (including those students studying elsewhere on a letter of permission) must make a written statement of their intention to return to the University to the Admissions Office prior to the beginning of the semester in which they intend to return.
7. Students in an undergraduate degree program who do not register at the University for 12 months or more must reapply for admission to the University. (See Interrupted Studies or Academic Standing.)
8. A university course taken by a student in order to fulfil the minimum requirements of a collegial program may reduce the specific requirements in a university program by that number of credits. It will not reduce the total number of credits required at the university level for a degree.

## Language of Instruction

The language of instruction of the institution is English, and an English Writing Proficiency test is required for graduation. Nonetheless, students have the option to submit individual written work in either English or French, except where a knowledge or competency in a language is an object of the course. Students who wish to submit work in French must notify their instructor by the Add/Drop deadline so that, if necessary, special arrangements can be made for the evaluation of their work.

## Application of the Extra Degree Credit Courses to a Student's Program:

1. ESL courses or MAT190 may be recorded on the academic transcript either as "EXT" (extra degree credit) or as credit courses.
2. Extra degree credit for ESL 070 is not included in the calculation of a student's academic or cumulative average.
3. ESL, MAT190 and EWP 099 are included in the credit count to determine a student's full-time or part-time status. They are also included in the maximum 15 -credit count for students on academic probation.
EWP099 is not included in the maximum 12-credit count for students who are placed on restrict status by the Writing Proficiency program. Extra degree credit courses are not included in the 30 -credit minimum required for scholarship students.

## COURSE CHANGES/ COURSE WITHDRAWALS

## Adding or Dropping Courses

1. The deadline date for dropping and adding one-semester courses, including course section changes (and changes from credit to audit status or vice versa) is normally eight days from the first day of class (see Sessional Dates).
2. Course Adds and Drops are accepted provisionally until it can be verified that the change(s) comply with any restrictions required by the student's academic or financial situation. Students will be informed as quickly as possible if a problem exists.
3. Students will be billed or refunded appropriately following the Add/Drop deadline should fees need to be adjusted.
4. Full-time or part-time status for each student in each semester will be determined by the student's course registration following the processing of all added and/or dropped courses.

## Withdrawing with Permission from Courses

1. The deadline date for withdrawing with permission ("WP") from one-semester courses is normally approximately ten weeks after the beginning of the semester. For full-year courses, the deadline date is the same as the deadline date for dropping or adding Winter Semester courses.
2. Fees will not be refunded for "WP" courses.
3. A student's full-time or part-time status in a semester will not be altered by "WP" courses.

## General Information

1. The onus for notifying the Registrar's Office of withdrawal from the University and for completing the necessary forms rests solely with the student. Simply ceasing to attend classes or labs, even when the instructor is informed, does not constitute withdrawal and will result in a failing grade in the course as well as possible financial penalties. Students who leave the University without completing a withdrawal form will have each of the applicable courses recorded as a zero and will not be eligible for any refund of fees. Those students holding scholarships must be responsible for meeting their obligation in returning or repaying all funds received for that semester or that year.
2. Registration for courses will take place on-line for both new and returning students during the registration periods listed at http://www.ubishops.ca/current-students.html. Once the semester has commenced adding / dropping courses can also be done on-line.
3. Students will not normally be permitted to add, drop or withdraw with permission from courses after the stated deadlines unless permission to do so is obtained from the appropriate Dean.
4. Students will not be permitted to withdraw from the University (WU) after the WP deadline without permission from the appropriate Dean. The student may petition the Dean for this permission in exceptional cases only.

## ACADEMIC <br> PROGRAM CHANGES

## Williams School of Business

To be eligible for transfer into a B.B.A. or B.A. Business Major, students must have successfully completed at least 24 credits at Bishop's and have achieved a minimum average of $75 \%$ based on all courses attempted. Students may also be required to meet with the Dean of Business for an interview. The number of student transfers is determined according to final enrolment figures and the quota for the School's maximum enrolment.

Any student who twice receives a failing grade in MAT 196, MAT 197, ECO 102, ECO 103 or any core/required Business course will not be permitted to repeat the course again nor be admitted in the B.B.A. or B.A. Business Major (see Double failure Regulations - Business programs). Please note that no credits will be awarded for MAT 190.

## Humanities, Natural Sciences and Mathematics Divisions

Students may normally transfer into a program in the Divisions of Humanities or Natural Sciences and Mathematics, or their departments, with a minimum cumulative average of at least $60 \%$ on all courses attempted at Bishop's.

Students with an average below $60 \%$ may be considered for registration in some courses in the proposed Division (Department) in order to allow them to show their potential for studies in that Division (Department). Such students will be classified as special full-time undergraduate (SFU) students.

## Social Sciences Division

Students may normally transfer into a program in the Division of Social Sciences or between programs within the Division provided they have a minimum cumulative average of $65 \%$ on at least 24 course credits completed at Bishop's or provided they have demonstrated an aptitude for the program by achieving an average of $65 \%$ in all program courses attempted (minimum of 12 credits). For the purpose of this regulation, the cumulative average and course averages used will be those existing at the time the program change request is made.

## School of Education

A student must obtain the formal permission of the School of Education to transfer into any of the four B.Ed. programs (B.Ed. in Teaching and Learning at the Elementary Level; B.Ed. in Teaching and Learning at the Secondary Level (English, Mathematics, Science and Technology, and Social Sciences profiles); B.Ed. in Teaching and Learning of the Creative Arts (Drama, Fine Arts and Music concentrations); B.Ed. in Teaching English as a Second Language). Students will be admitted to these programs at the discretion of the School of Education. A 70\% cumulative average is required for transfer into programs in Education.

## General Information

1. Students must normally have completed a minimum of one semester at the University before requesting a transfer.
2. In the event of an academic program change, the student must notify the Records Office by completing and returning the correct form with the appropriate signatures. The Academic

Calendar in effect at the time of the program change will determine the program requirements. Application for program change must be made on the appropriate form available at the Records Office and be approved by the appropriate Dean and Departmental Chair.
3. Program changes may necessitate re-evaluation of minimums and total credit requirements. A completed program must include all required courses/labs of the selected Honours/ Major/Minor program(s) as described in the appropriate Academic Calendar and in the letter indicating credit requirement changes.
4. Students who are permitted to register as special full-time undergraduate (SFU, SPG or SPT) students may make such a registration for a maximum of two consecutive semesters.

Such students must make a choice of, and be admitted to, an alternate degree program. See admissions section for details and deadlines. Students who fail to do so will not be permitted to register on a full-time basis in that semester.
5. The University realizes that there will be students who cannot continue their studies at Bishop's University as a result of their dismissal from one program and/or their ineligibility for transfer into any other program in the University.

## EXAMINATIONS

## Regular Examinations

1. Final examinations are held in December (for one-semester courses only) and in April. Other examinations may be held as required. Regular-load day courses (sections 01-04 inclusive) are normally scheduled during the day. Regular load evening courses (sections 05) may be scheduled during the day or evening. Continuing Education courses (sections 0609) are normally scheduled on the evening the class is held.
2. Every instructor shall, in consultation with the students concerned, determine the procedures by which the final course grade will be arrived at for each course in his or her charge. These procedures shall be filed in the Vice-Principal's Office within the first two weeks of the course. The appropriate documents are open for examination by any registered student after being filed in the Vice-Principal's Office.
3. Departmental Chairpersons, in consultation with other members of the department and the students involved, may be permitted to reschedule examinations in the courses offered by the department without having to obtain the written consent of all students registered in the courses, providing that $2 / 3$ of the students agree and that the rescheduling would not introduce any further conflicts in the examination schedule.
4. Examinations (other than final examinations) and tests can only be set during the formal working hours of the University, namely Monday through Friday from 8:30 a.m. to 6:00 p.m. Evening classes, however, will be allowed to set examinations during their regular class time. Students shall not be required to miss classes in order to write a test, nor shall students be scheduled to write two tests at once. Should either of these two situations arise, the professors and students involved will take immediate steps to remedy the situation to the satisfaction of the students' Academic Dean. Tests outside
of normal working hours, or in the case of evening classes outside of regular class time, will require signatures of all students registered in the course.
5. No mid-term examinations totaling more than $10 \%$ of the final grade may be held during the last two weeks of lectures, with the exception of lab tests of $30 \%$ of the grade in lab courses of 1 credit.
6. Examinations in laboratory courses of 1 credit must take place on or before the last laboratory of the regular semester and will not be scheduled in the final examination period.
7. Students writing final examinations in the examination hall must present their Bishop's ID card to prove identity; otherwise the student may be barred from the examination hall.

## Guidelines for Examination Invigilators

Identification: Students are required to identify themselves by displaying their Bishop's student card on their desk throughout the exam and by initialing their name on the class list.

Students may not enter the examination room after the first half-hour of the examination period. Students may not leave the examination room before one-half-hour has passed.
Authority: The invigilator has the authority to dismiss from the examination room any student without proper identification. The invigilator may ask a student to leave an examination if he/she has reasonable grounds to believe that a student is breaking or has broken or is attempting to break a University examination regulation, e.g. cheating, impersonation, improper use of examination materials or attempting to communicate with or convey information to other students in any way. The invigilator also has the authority to dismiss from the examination any student whose behaviour could cause a disturbance or could constitute a threat to the safety or security of others.
All such instances must be reported to the instructor of the course (if this is not the invigilator) and to the Dean of the Division to which the student belongs, using a form designed for this purpose and available from the Registrar's Office.

Instructions: At the start of the exam, the invigilator will refer to the Examination Regulations for Students (printed on the front of the examination books) and require the students to sign that they have understood them.
Presence: The invigilator must ensure that the examination room is not left unattended at any time during the examination. If possible, more than one invigilator should be present. If this is not possible, arrangements should be made for a regular check by a person able to conduct students to the washroom, convey messages, etc.

Illness or Emergency: If a student is unable to continue writing an examination due to severe stress or illness, the invigilator may allow the student to leave the examination room. The invigilator should make a note of the student's name and number and the circumstances and report these to the Dean of the Division to which the student belongs.

Disruption: In the event of an emergency evacuation during an examination, the invigilator will instruct students to close their examination books and leave all materials on the desk
before leaving the building. If the alarm is of short duration, the examination can be continued; otherwise, students should be advised that the examination will be rescheduled. In the event of a power failure, students will close all materials but remain in the room until it is determined whether or not the examination can be continued. If the examination resumes, the examination period should be extended to compensate for the lost time.
In the event of a major disruption (for example fire, flood or a bomb threat), the examination would be terminated and rescheduled.
Invigilators may wish to carry a cell phone in case of emergency during the examination period.

## Rereading of Submitted Work or Examinations

In cases where the rereading of sessional examinations, supplemental examinations or papers is requested, the following procedure will be followed:

1. Only individual course components constituting at least $25 \%$ of a final grade in a course can be reread.
2. Written application for the rereading of examinations shall be made to the Dean no later than one month after the beginning of the next regular semester of the University. Before an examination paper is reread by an external examiner, it must have been reread by the course instructor. The fee for rereading of examinations by external examiners is $\$ 55$ per course.
3. The appointment of the external examiner shall be approved by the Departmental Chairperson and the Dean. In the case where the Departmental Chairperson is the original examiner, then another departmental member shall act in the appointment of the external examiner. Where the Dean is the original examiner, then the appointment of the external examiner shall be made by the Departmental Chairperson and one other member of the department.
4. The external examiner shall be provided with:
a) all pertinent course materials, including objectives of the course, outline of topics, distribution of marks, texts, case materials, reading lists, etc.
b) a copy of the examination paper or essay, without the grade assigned to individual questions, or to the paper as a whole, by the original marker.
5. The grade assigned by the external examiner, whether lower or higher than the original examiner's grade, shall be the grade recorded for that component of the course.
If, as a result of the rereading of an examination, the student's grade is raised to at least a pass, the $\$ 55$ will be refunded by the University.

## Supplemental Examinations

1. The right to sit for a supplemental examination will be granted only at the discretion of the instructor.
2. A course passed after a supplemental examination shall be recorded as $50 \%$ and a failing grade will be recorded as F .
3. In order to qualify to write a supplemental examination in any course, a student must obtain a final grade of at least $45 \%$
in that course, with the exception of science courses which require a final grade of at least $35 \%$.
4. The supplemental examination shall be given not later than the last day of the semester immediately following the original examination.
5. The supplemental examination shall be arranged through the Records Office, using the appropriate form, in consultation with the instructor.
6. The fee to sit for a supplemental examination is $\$ 35$ if written on campus or $\$ 75$ if written off campus.
7. The weight carried by a supplemental examination shall be that assigned to the final examination in that course, unless it is specified otherwise by the instructor in the course grading scheme submitted to the Office of the Vice-Principal.
8. In all cases, application forms to attempt supplemental examinations must be completed and returned to the Records Office, accompanied by the appropriate fee (see Fees, Miscellaneous) prior to the supplemental examination being written.
9. Supplemental examinations which would change the student's academic status (that is, from "must withdraw" to "on academic probation", or to remove "on academic probation" from the student's record) must be written by the Add/ Drop deadline in order to change the status for that semester. Supplemental examinations written following that date will change the status for the following semester.

## Deferred Grades/Deferred Examinations

1. A student may be granted the privilege of a deferred final grade for a course, either by writing a deferred examination or by satisfying other written or oral requirements for the determination of the course grade on a deferred basis. The onus is on the student to petition the appropriate Dean for granting of deferred status in any course.
2. Normally, deferred status shall be requested in advance of the scheduled examination or deadline for other course requirements. However, should this not be possible, there will be a ten-day time limit after the date of the scheduled examination or after the due date for the course requirement for notification in writing to the Dean by the student of a request for deferred status.
Note: Faculty members do not have the responsibility of requesting deferred exams or deadlines on behalf of students, nor do they have the authority to grant such status.
3. With respect to the documents which are to form the grounds for the request for deferred status, there will be a time limit of 30 days after the date of the scheduled examination or the deadline for the course requirement for receipt by the Dean of the official documents. Grounds for deferral may include medical, compassionate or such other grounds as may be approved by the appropriate Dean. Where the request is based on medical grounds, the documentation submitted from a physician or a hospital must include specific reasons to account for the absence of the student and indicate that the student was incapable of attempting the examination or other
work on the date(s) in question. The onus is on the student to supply all of the necessary documentation to the Dean.
4. Deferred final grades shall normally be submitted within 30 days of the original deadline for the submission of grades for the course in question. The onus is on the student to contact the faculty member(s) to arrange for the completing of deferred exams or other course requirements. If no grade is received, a grade of " 0 " will be assigned to the course or course component in question. Final authority for the granting of deferred status, and any changes to this status, rests with the Dean.

## General Regulations

1. Final responsibility for grades assigned to any course work or examination rests with the professor or instructor teaching the course.
2. Application for aegrotat standing: A student unable to attempt a final examination or some other requirement for a course, for a valid medical reason, may petition for credit in that course on the basis of satisfactory completion of the remaining course requirements. Such a petition must be accompanied by a statement from a physician and shall be ruled upon by the appropriate Dean.
3. Late submission of grades will not be accepted unless deferment has been granted on medical or compassionate grounds. Deferment or the correction of errors will be the only reason for change of grades.
4. A grade on a transcript shall not be changed after the last day of the semester immediately following the semester in which the grade was achieved.
5. A department may set a comprehensive examination in its Honours program at the end of the final semester.
6. Cases not covered by the above regulations may be referred by the student to the appropriate Dean.
7. Honours theses are to be evaluated according to a collegial principle. Specifically, a minimum of three members of a department, or two if the department has only two members, shall evaluate the thesis, their evaluations having equal weight.

## Grading System for Undergraduate Studies

Bachelor of Arts, Bachelor of Science, Bachelor of Business Administration, Bachelor of Education, Special Nondegree Status

Passing grade. $\qquad$ $50 \%-100 \%$; P (pass)
Failing grade...................... $0 \%-49 \%$; F (failure)
80\%-100\% $\qquad$ (equivalent to A )
$70 \%-79 \%$ $\qquad$ (equivalent to B)
60\%-69\% (equivalent to C)
50\%-59\% (equivalent to D)
The notation "Academic Honour Roll" appears on the transcript of a full-time student who maintains an average of $80-100 \%$ for the complete academic year (Fall, Winter Semesters). Exception:
B.Ed. students are not awarded this designation.

## Independent Study Courses

In addition to conventional lecture and seminar courses in which study is directed mainly on a group basis, some departments offer Independent Study courses which employ individual tutorials as
a format. These courses provide opportunities for responsible students of proven overall academic ability to pursue topics in which they have a special interest, in an area for which they have demonstrated aptitude, through independent reading or research. Independent Study courses are listed by subject, in numerical order with other courses. Admission is at the discretion of the instructors, Departmental Chairpersons and Deans. The usual course registration form or Add/Drop form is used to register for Independent Study courses and must be submitted to the Records Office by the appropriate deadline dates.

## Guidelines on Independent Study Courses

1. Independent Study courses may normally be taken only by Majors and Honours students in the area of their program. Minors students may be permitted to follow such a course only if it is required to complete the Minor program. Exceptions may be made with the permission of the Dean concerned.
2. Independent study implies adequate direct supervision by a faculty member during one of the regular sessions, i.e. Fall, Winter or Summer session. The faculty member should not be on leave of any kind.
3. Independent Study courses will be under the general supervision of departments rather than individual professors, and the departments must agree to proposed programs of study, marking schemes and grades awarded.

## ACADEMIC STANDING

## Bachelor of Arts, Bachelor of Science, Bachelor of Business Administration, Bachelor of Education, Special Students

Formal written notification from the Academic Standing Committee or the Admissions Manager is the only valid statement of a student's academic standing. Opinions expressed by or information provided by individuals are not binding unless confirmed in writing by the Committee or the Admissions Manager.

Inquiries related to matters concerning academic standing should be directed to the Admissions Office.

## Maintenance of Good Academic Standing, Probation, and Must Withdraw Status

1. Full-time students who have attempted at least 24 credits must maintain a minimum cumulative average of $55 \%$ calculated at the end of each Fall and Winter semester in order to remain in good academic standing.
(See sections on Williams School of Business and School of Education for additional requirements of these programs.)
2. Part-time degree students who have attempted at least 18 credits must maintain a minimum cumulative average of $55 \%$ calculated at the end of each Fall and Winter semester in order to remain in good academic standing.
(See sections on Williams School of Business and School of Education for additional requirements of these programs.)
3. General Interest (SPU) students must maintain a minimum cumulative average of $55 \%$ calculated at the end of each Fall and Winter semester in order to remain in good academic standing.

Students who do not achieve this standard are subject to the following regulations.

1. Full-time, part-time and SPU students failing to achieve a $50 \%$ average will be required to withdraw from the University for 12 months
Note: A student may be required to withdraw without first being placed on probation if their academic performance requires it.
2. Students with averages between $50 \%$ and $54.9 \%$ will be placed on academic probation.
a. Full-time students:
i. Will be required to raise their cumulative average to $55 \%$ by the end of the next two semesters in which they are registered. (Spring semesters are not counted.)
ii. May not be registered in more than 15 credits, not including lab credits, per semester. Both ESL courses and EWP099 are included in the credit count.
b. Part-time degree and SPU students:
i. Will be required to raise their cumulative average to $55 \%$ over the next 9 credits attempted.
ii. May not register in more than 9 credits, not including lab credits, until probation has been removed. Both ESL courses and EWP099 are included in the credit count.
3. Students on probation who fail to achieve the $55 \%$ in the specified time period will be required to withdraw from the University for 12 months.
4. "Academic probation" and/or "must withdraw for academic reasons" will be recorded on the transcript of the students concerned.
Students who have been required to withdraw from the University for academic standing reasons are subject to the following regulations:
5. Students who have been required to withdraw from the University may not register for any course(s) at the University or complete courses elsewhere on a letter of permission for a minimum period of 12 months.
6. Students who have been required to withdraw may apply for re-admission to the University.
a. Re-admission requests must be submitted according to the published application deadlines (see Applying to Bishop's University)
b. Students should contact the Admissions Office for information on the re-admission application process.
c. Students who are accepted back into the University will be re-admitted on academic probation.

## Academic Standing Appeals

1. The above regulations are implemented by the Academic Deans and the Academic Standing Committee and administered by the Admissions Manager.
2. Decisions of the Academic Deans on academic probation, withdrawal from the University and subsequent readmission are binding.
3. A student may request the Academic Standing Committee to reconsider an unfavourable decision, but such a request does not necessarily constitute a basis for provisional readmission. Only one request for reconsideration of a Dean's decision will be heard by the Committee in each case.
4. Students wishing to request reconsideration should contact the Admissions Office for additional information on the process.
5. Appeal documentation must be submitted to the Committee by the date indicated on their written notice of academic standing.

## General Information

1. The specific regulations regarding maintenance of good standing in the programs of the Williams School of Business and the School of Education are in effect in addition to the regulations above and following, where applicable (see Business or Education).
2. The cumulative average is calculated using all courses attempted at Bishop's, including those in which a grade of " 0 " is received, with the exception of extra degree credit, and extra degree credit ESL courses and courses from which students have withdrawn with permission. The courses are weighted according to their credit value.
3. Courses completed elsewhere are not included in the calculation of Bishop's University's cumulative average (see Credit for Studies Completed Elsewhere).
4. Should a student repeat a course at Bishop's in which a grade has already been received, the grade awarded in the second registration will be used in the calculation of the cumulative average and credits awarded, regardless of whether it is the higher or lower grade. Repeated courses will not affect academic standing, which is based on academic performance in a particular academic year.
5. Students with a failing cumulative average (i.e. below $50 \%$ ) will not be eligible to graduate from the University (see Additional Graduation Requirement in Business Administration).
6. Students who have been asked to withdraw may not normally register for any course(s) at the University or complete courses elsewhere on a letter of permission.
7. Applications for readmission must be submitted in writing to the Admissions Office. Students who are readmitted will be admitted on probation.
8. A full-time student on academic probation may not be registered in more than 15 credits, not including lab credits, per semester. A part-time student on academic probation may not register in more than 9 credits, not including lab credits, until probation has been removed. Both ESL courses and EWP099 are included in the credit count.
9. "Academic probation" and "must withdraw for academic reasons" will be recorded on the transcript of the students concerned.
10. Formal written notification from the Academic Standing Committee or the Admissions Manager is the only valid statement of a student's academic standing. Opinions expressed by or information provided by individuals are not binding unless confirmed in writing by the Committee or the Admissions Manager.
11. In cases of alleged procedural errors, incorrect information or discrimination, an appeal may be made to the Student Appeals Committee.
12. Inquiries regarding any of the above should be addressed to the Admissions Office.

## Regulations for Graduate Studies in Education

## The Degree of Master of Education or Master of Arts

To qualify for the degree of Master of Education or Master of Arts in Education, a candidate must be a graduate of this or another approved university and must complete 45 credits of graduatelevel work in Education.

Courses leading to these programs are offered year round, on the Bishop's campus and possibly at off campus locations, via technology.

## General Academic Regulations

1. Applicants may be admitted to one of the following: the Master of Arts in Education or the Master of Education program.
2. M.Ed./M.A. students who receive a grade lower than $70 \%$ have failed the course and are not permitted to continue in the program without formal permission of the School of Education's Admissions Committee.
3. Students enrolled in either the M.Ed. or the M.A. who have not registered for any course during a period of more than 24 months are deemed to have withdrawn. They may reapply for admission to the program, subject to the same procedures and conditions as new applicants.
4. Full-time status for graduate level studies is defined to be 9 credits or more.

## Transfer Credit

A candidate for the Master of Arts in Education or the Master of Education degree may, with the permission of the Dean of the School of Education, complete up to three appropriate courses ( 9 graduate-level credits) at another recognized institution. Candidates should obtain prior approval for such courses. Such courses may not be used to meet the requirements of core courses or projects, monographs, or theses.

## Regulations for Graduate Studies in Science

The Division of Natural Sciences and Mathematics of Bishop's University offers a Master of Science degree (M.Sc.) program in the Departments of Chemistry, Computer Science, and Physics. See Graduate Programs on pages 225 to 240 for more information.

## Admission

1. Completed applications will be forwarded to the appropriate department for evaluation. Recommendations for admission to a degree program are made by the department to the Dean. Final approval for admission is made by the Dean.
2. Advanced courses of instruction leading to the Master of Science degree are open to graduates of any university of recognized standing who have obtained at least a Bachelor's degree with Honours with Class II standing or its equivalent. An applicant who has followed a combined program must have obtained at least a Class II standing in the subject of the Masters degree.
3. Applicants who do not satisfy these requirements may, with the permission of the department concerned and the Dean, be admitted to a qualifying semester(s) or year to bring their standing up to that of an Honours B.Sc. degree.
4. Admission to graduate courses does not in itself imply candidacy for a graduate degree.
5. All information is processed through the Admissions Office.
6. These regulations for admission are minimum requirements. Additional requirements may be specified by departments, with the approval of the Division.

## General Regulations

1. Apart from any qualifying semesters, the minimum period of registration for the M.Sc. shall be one academic year of fulltime study, including research, or its equivalent in part-time study. This requirement must be met regardless of the amount of graduate work previously completed in any other program or at any other university.
2. The maximum time allowed for the fulfillment of the requirements for graduation shall normally be four years in the case of full-time students, excluding any qualifying or inactive semesters. For part-time students the course-work required for qualifying semesters (if any) and the regular credit requirements of the program must be completed at the rate of no fewer than 6 credits per year.
3. Students may choose to leave the program temporarily for one semester, but only with permission of their supervisor; these students shall be considered inactive for that semester. Such a one-semester leave of absence from the program will not normally be allowed more than twice.
4. Students must obtain a minimum of $65 \%$ in each required course. Courses may not be repeated more than once.
5. Each degree candidate will be assigned, by the department in which the thesis is to be submitted, to a supervisor who shall be a faculty member of the department and who will be responsible for advising the candidate and directing his/ her research. Co-supervisors may also be assigned with the department's approval.
6. The course of study will be arranged by the supervisor. The subject of the thesis also requires approval by the supervisor.
7. The responsibilities of the students include: informing themselves of program requirements and deadlines, working within these deadlines, communicating regularly with their supervisors; and submitting annual progress reports to their supervisors and the Division.
8. Students may receive (limited) financial support from the University in the form of research assistantships, undergraduate marking, tutoring and/or laboratory demonstrating duties. Such support requires approval in writing from both the department and the Dean. Duties and remuneration will be clearly stated and in no case shall duties exceed ten hours per week on average.
9. All students in graduate courses or degree programs enjoy the protection of the University's policy and procedures on academic review and appeal (see pp. 21-24 of the University Calendar) and on research ethics (see the Vice-Principal for documentation).
10. A passing grade is $65 \%$ or better or " P " for pass. A grade less than $65 \%$ or " $F$ " is a failure.
11. Full-time status for graduate level studies is defined to be 9 credits or more.

## Supervision

1. It is the responsibility of the supervisor to monitor the progress of students throughout the graduate program, to ensure that all conditions of admission and requirements are fulfilled, to provide students with information on their program, and to advise them how to resolve problems which may arise during their program.
2. Thesis supervisors must be tenured or tenure-stream faculty or adjunct faculty. Sessional and contract faculty may co-supervise students with the department's approval. Emeritus Professors may co-supervise. In all cases, the department must ensure continuity of appropriate supervision of their graduate students.
3. Problems that cannot be resolved by discussion between the student and the supervisor shall be referred to the Dean.
4. Information concerning sources of financial support and policies on obtaining same should be sought from the Dean.
5. Students must receive guidance and constructive criticism concerning their progress on a regular basis through the program, including regular meetings and/or e-mail communication with supervisors, attendance at research seminars, and appropriate responses to the student's annual progress report.
6. By April 15 of each year, M.Sc. candidates must submit to their supervisors a progress report covering both courses and research programs. This report must include the candidate's name, program and semester, a list of courses completed and their grades, a list of courses in which the candidate is registered, and a list of courses yet to be taken. A statement concerning the research work must include the title of the thesis (or if this has not yet been decided, a general title of the project), a short outline of the work to its present state, including the amount of work done and the significant findings of the research, plus a statement of the work proposed for the future and a realistic estimate of the time required for its completion.
7. The supervisor will evaluate the annual progress report and grant a grade of "satisfactory" or "unsatisfactory". Copies of this graded report will go to the department concerned and to the Division. The department may compel a student to withdraw from the M.Sc. degree program in the event of an "unsatisfactory" grade on an annual progress report. Students have the right to have this decision reviewed, first by the Dean and then by the Academic Review Committee.

## Thesis Regulations

1. All M.Sc. students must make a satisfactory oral presentation and defense of their thesis before graduating. Three copies of the thesis of a degree candidate must be submitted, with the approval of the supervisor, to the Division at least two months in advance of the marks deadline of the semester in which it is to be defended.
2. The three copies of the thesis delivered to the Division must be accompanied by a letter from the supervisor informing the Division of the names of the two persons who have consented to act as examiners of the thesis (see Regulation 3). The secretary of the Division shall forward one copy of the candidate's thesis to each examiner with an appropriate covering letter.
3. The thesis shall be orally presented and defended before two examiners other than the supervisor, one of whom shall be an external examiner who is a specialist in the candidate's field of interest. The examiners shall be selected by the supervisor and department concerned, subject to the approval of the Dean. A thesis will be accepted only following approval of its defense by both examiners. A thesis may be returned to the candidate for revision on the advice of one or both examiners and subsequently re-defended (once only).
4. After the thesis has been defended and accepted, at least three copies shall be properly bound by the University at the candidate's expense, one for deposit in the Library, one for the retention of the department concerned and one for the supervisor. At the request of the candidate, a fourth copy maybe bound for his/her personal use.
5. Advice concerning the preparation and presentation of theses is to be provided by the supervisor and department concerned.
6. It is the responsibility of a supervisor to uphold and to transmit to students the highest professional standards of research and scholarship in the preparation of theses; to provide guidance in all phases of the student's research; to meet with their students regularly; to provide prompt feedback on submitted work, including drafts of the thesis; and to clarify expectations regarding collaborative work, authorship, publication and conference presentations which may result from the student's research.

## Programs and Courses

## Scheduling of Courses

The regular hours of the University are Monday to Friday, with classes commencing between 8:30 a.m. and 4:30 p.m. inclusive. Evening courses may begin after 4:30 p.m. Some classes may be offered on Saturdays. A 3-credit course will normally have a minimum of 36 contact hours.

Before any course in the Calendar may be scheduled outside these hours, approval must be obtained from the appropriate Dean.

## Course Numbering System

1. A Fall Semester course bears the letter "a". A Winter course bears the letter "b". A one-semester course that may be given in any semester bears the letters "ab". A two-semester course bears no letter and is to be completed during the Fall and Winter Semesters.
2. Undergraduate courses:
(a) Course numbers starting with " 0 " are usually those taken in the first year of a four-year program, though they may be taken as additional credits in a three-year program.
(b) Courses numbered from 100 to 199 are normally firstyear courses.
(c) Courses numbered from 200 to 299 are normally sec-ond-year courses.
(d) Courses numbered from 300 to 399 are normally thirdyear courses.
(e) Courses numbered from 400 to 499 are Honours courses or courses in the Bachelor of Education.
3. Graduate courses: courses numbered from 500 to 799 .
4. All the courses listed in this Calendar are not necessarily offered every year. Please consult the Timetable for a list of offerings each semester.

## Credits and Hours Code

With reference to the credit requirements, it may be noted that (normally) 1 credit is awarded for a one-semester lab course, 2 credits for a two-semester lab or Music ensemble course, 3 credits for a one-semester lecture course, 4 credits for a two-semester practical Music course, 6 credits for a two-semester lecture course, and 6 or more for a thesis.

Information as to the credit value and hours of scheduled class activities for each course is contained in a three number code which follows the title. The first number in the code is the credit value of the course; the second number is the hours per week of lectures, tutorials and seminars; and the third number is the hours per week of laboratory work and other scheduled class activities. For example, the code 3-2-3 indicates 3 credits; two hours per week of lectures, tutorials or seminars; and three hours per week of laboratory work or other scheduled class activities. Additional information on the format of presentation of a course may be contained in the description of the course.

Please note that the credit requirement given for a program is the minimum and does not include lab credits. Students are advised to consult their letter of admission for the credit requirements specific to their program.

## Definitions

Audit: With the permission of the instructor, a student may participate in class discussions and activities, but not write the examinations or receive credit for a course. Audit courses must be part of the student's formal registration and are subject to the normal fee structure of the University (i.e. are charged in the same manner as credit courses).
Cognate: A course offered by a department other than that in which a Major has been declared, but which is accepted by the Major department as part of the degree requirements.
Corequisite: A course in which a student must be registered concurrently (at the same time) in order to receive credit in the desired course.
Cumulative average: Average calculated on all courses attempted at Bishop's in which a numerical grade has been received (including " 0 "s) with the exception of extra degree credit ESL courses. However, should a student repeat a course in which a grade has already been received, the grade awarded in the second registration will be used in the calculation of the cumulative average regardless of whether it is the higher or lower grade. (Repeated courses will not affect academic standing.)
Elective: A course taken in a degree program which is not applicable to the Honours/Major requirements, but which counts towards the total requirements for the degree; an optional course.
Exemption: A student may be exempted from an introductory course at the University when comparable non-university course work has been completed elsewhere. No credit will be granted towards their Bishop's degree for the exemption. The exempted course must be replaced by a Bishop's course of equal credit.
Honours: An Honours program requires a high level of concentration in one area of study, normally about half of the total courses taken for a degree. Students in Honours programs must demonstrate a high level of academic achievement, and a thesis is often required.
Major: A Major in any subject consists of slightly fewer than half of the total courses taken for a degree (normally about 48 credits excluding labs).
Minor: A Minor in any subject consists of about one third of the total courses taken for a degree (normally 24 or 30 credits, excluding labs).

## Prerequisite:

a. A course which must be successfully completed prior to registration for credit in the desired course (e.g. MAT210 is a prerequisite for MAT211).
b. A course which is required by a particular department and which should be completed in the first 30 credits at Bishop's (e.g. PSY101 is a required prerequisite for the Psychology Major). These are listed in the program requirements prior to the course descriptions of each department.

Transfer Credit: A student transferring to Bishop's from another university may be eligible for advance credit, to be granted on admission, for their work completed on presentation of official transcripts and course descriptions for evaluation. Credits awarded are subject to further review should the student change programs.

## Continuing Education

Bishop's University Continuing Education is dedicated to fulfilling lifelong learning needs by offering credit and non-credit courses and programs through its Lennoxville campus as well as online. Its mission is to ensure continued access to educational programs of the highest quality for adult learners who wish to pursue their studies.

Whether you are trying to develop your career, enhance your skills through professional development, or engage in meaningful and enriching learning opportunities, our courses are designed with you in mind.

## Intensive day programs offered by Continuing Education include the following:

- The English Language Summer School - EXPLORE program Two sessions: May-June or July-August
- 1-4 Weeks of English Immersion for Professionals in July

For a list of current course offerings and all related information, please contact:

Office of Continuing Education<br>Bishop's University<br>2600 College Street<br>Sherbrooke, Quebec J1M $1 Z 7$<br>Tel.: 819-822-9670 or 1-877-822-8900

E-mail: continuing.education@ubishops.ca

## English Writing Proficiency (EWP) and The Writing Centre

ALL STUDENTS WHO ENTERED BACHELOR DEGREE PROGRAMS AT BISHOP'S UNIVERSITY PRIOR TO SEPTEMBER 2020 MUST SATISFY THE ENGLISH WRITING PROFICIENCY REQUIREMENT (FOR EXEMPTIONS, SEE BELOW). FOR DETAILS, SEE "ENGLISH WRITING PROFICIENCY" LISTED UNDER THE "BU LIBERAL EDUCATION MODEL" TAB FOUND UNDER "ACADEMIC PROGRAMS" ON THE BISHOP’S HOME PAGE MENU.

## English Writing Proficiency (EWP) Requirement

The Requirement can be satisfied by passing either the EWP Exam or the English Writing Proficiency course EWP099, described below. Please note that EWP099 does not count as an elective towards a degree and is to be completed in addition to the regular program requirements.

1. The EWP Requirement must be satisfied within the first 45 credits of a student's program. Students enrolled in ESL courses or working on their writing skills in other courses may be given more time to meet the Requirement.
2. Students should write the EWP Exam at least once every academic year until they pass.
3. Students who do not pass the EWP Examination should review their exams at the Writing Centre (The Library Learning Commons) before they rewrite.
4. RESTRICT STATUS: Students who have more than 45 credits and who have not passed the EWP Exam or EWP099, are not taking ESL classes, or have not written the EWP Exam during the academic year, may be placed on RESTRICT STATUS.

## RESTRICT STATUS

Students on EWP Restrict Status will be restricted to registering in only 12 credits per semester and are required to write the EWP Exam and/or register in EWP099.

Students working on their writing skills in courses other than EWP099 must still pass the EWP Exam.

## Exemptions from the EWP Requirement

The following students do not have to write the EWP Exam:

1. Students who have completed an undergraduate or graduate degree at an institution where the language of instruction is English
2. Incoming international exchange students (The EWP Examination and the course EWP099 are optional for these students.)
3. Students in certificate programs (undergraduate and graduate), graduate programs, micro programs, and special interest students (SPV, SPU)

## EWP099 English Writing Proficiency <br> 3-3-0

A basic writing course of English for academic purposes, consisting of a lecture and tutorials designed to improve students' skills in written English. Emphasis is placed on the development and organization of ideas, text clarity, coherence, grammar and syntax.
This course is designed for students who do not pass the EWP Exam. Other students who wish to enroll in the course need permission from the Program Coordinator. This course cannot be used as an elective.
Passing EWP099 satisfies the EWP requirement.

## UNIVERSITY-WIDE

## EXPERIENTIAL LEARNING COURSES

The University is committed to providing interested students with opportunities to take part in experiential learning projects. Funds are made available each year through the Bishop's Experiential and Service Term (BEST) competition and through the Experiential Learning Committee. Many departments have courses specifically designed to offer experiential learning, and most have Independent Studies courses that can be structured so as to be experiential. Note that as is always the case with experiential learning, the explicit support and supervision of a Faculty member is necessary for the course to take place.

## ELP 300 Experiential Learning Internship/Placement 3-1-10

Linked to the student's academic program, the student will be involved in an experiential learning activity (on his/her own or as part of a team) that will normally involve an internship/placement in an organization for 12-15 weeks approved by the Experiential Learning Committee of Senate and the internship/ placement supervisor. Course work for the course will involve the preparation of an activity plan including goals, the work itself and a critical analysis on what was learned and/or accomplished during the internship/placement.
ELL 200 Experiential Learning Lab
1-0-3
Linked to the curriculum of a regular course, the student will be involved in an experiential learning activity (on his/her own or as part of a team) in an organization that will normally involve 30 hours of official activity approved by the professor of the regular course. Such activity will be in addition to the work accomplished in the regular course to which the lab is affiliated. Course work for the lab will involve the preparation of an activity plan including goals, the work itself and a critical analysis on what was learned and/or accomplished during the activity.
Prerequisite: approval of instructor
LED100 Liberal Education 3-3-0
This course introduces first-year students to a range of competencies essential to liberal education. This is accomplished by means of explicitly interdisciplinary study of a single unifying theme (examples: ultimate origins, money, envy, the power of numbers, the 1930 s , etc.). The course is team taught by members of the faculty from the Humanities, Natural Sciences and Mathematics, Social Sciences, the Williams School of Business, and the School of Education. Classroom work is divided between lectures and breakout seminar discussion.
SLP 399 Situated Learning and Praxis $\quad \mathbf{3 - 1 - 1 0}$
Under professor supervision, the intention of this course is to foster learning through collaborative critical thinking, creativity, and entrepreneurship among the students from various disciplines and members of a local community in Malawi. Students are prepared in the winter semester to engage in situated learning in rural Malawi for a period of five to six weeks during the spring session. The result of the experience is meant to encourage students and local community members to creatively expand their own borders of learning and area of studies through a spirit of reciprocal participation and dialogue.
UNI 199- University-wide special topics course 3-3-0
This course provides an open code for creating a special 100-level course related to a relevant topic within any discipline offered at Bishop's University.
UNI 299- University-wide special topics course 3-3-0
This course provides an open code for creating a special 200-level course related to a relevant topic within any discipline offered at Bishop's University. Pre-requisite: permission from the Instructor or at least one 100 level course.
UNI 399- University-wide special topics course 3-3-0
This course provides an open code for creating a special 300-level course related to a relevant topic within any discipline offered at Bishop's University. Pre-requisite: permission from the Instructor or at least one 200 level course.
UNI 499- University-wide special topics course 3-3-0
This course provides an open code for creating a special 400-level course related to a relevant topic within any discipline offered at Bishop's University. Pre-requisite: permission from the Instructor or at least one 300 level course.

## Williams School of Business

## Dean

Reena Atanasiadis,
B.Com., M.B.A. (Concordia)

## Faculty

## Hafid Agourram,

B.A. (Rhode Island), M.S. (Calif.), M.A. (Spain), D.B.A. (Sherbrooke); Professor

## Sylvie A.F.A. Béquet,

D.E.S.C.A.F. (France), M.Sc. (Sherbrooke); Professor

## Svetlana Davis,

B.Comm. (Archangelsk State), M.B.A. (Sejong-Syracuse), M.Sc. (Queen's), Ph.D. (Queen's); Associate Professor

## Denise Fortier,

B.B.A. (Bishop's), M.A. (California State), D.B.A. (Sherbrooke); Professor

Shayna Frawley,
B.A. (Western), M.A. (Queen's), Ph.D. (York); Assistant Professor

## Elisa Gagnon,

B.Sc.A. (UQAC), M.S. (Quinnipiac), Ph.D. (McGill); Associate Professor

Paul Leonard Gallina,
B.A., M.L.I.S. (Western), M.A.(Brock), Ph.D.(Guelph), LL.M. (Leicester), DOHS (McMaster), Dip.Ad.Ed. (St.Francis Xavier); Professor

## Mark Gandey,

B.B.A (Bishop's), M.B.A.(UQO), Dipl. Ed. Tech (Concordia), CPA, CMA; Lecturer

## Nathalie Hivert,

B.B.A., M.Sc. (Sherbrooke), CPA, CA;

Senior Instructor

## Robert Palmer,

B.Sc., M.A. (Ottawa), Ph.D.(Michigan State); Professor

## Susan Reid,

B.Sc.(Queens), M.B.A. (McGill); Ph.D.(Concordia); Professor

Cranmer Rutihinda,
M.Sc. (Sofia), Ph.D. (Stockholm); Professor

## Arshad Taseen,

B.Eng. (Bangalore), M.B.A. (Ottawa), Ph.D. (Western); Professor Chair of the Department

## Michael Teed,

B.A. (Moncton), M.Sc., Ph.D. (St.Mary's); Professor

## Dominique Toupin,

B.Ing., M.B.A. (Laval); Lecturer

## Francine Turmel,

B.A.A. (Laval), E.M.B.A. (Concordia), Ph.D. (Laval), FCPA, FCA, ASC; Professor
Calin Valsan,
B.Sc.(Bucharest), Ph.D.(Virginia Tech.); Professor

Yanan Wang,
B.A. (Renmin), M.Phil. (Lingnan), Ph.D. (McGill); Associate Professor

## Programs Overview

The Williams School of Business at Bishop's University is dedicated to providing a high-quality undergraduate business education within the liberal arts education tradition of the University. Students may work towards one of two undergraduate degrees: a Bachelor of Business Administration (B.B.A.) and a Bachelor of Arts (B.A.) with a Business Major, or add a Major in Management to their program. The B.A. Business Major is ideal for those who wish to combine their business studies with a different subject and the Major in Management necessarily complements a major in another discipline. The B.B.A. offers the most in-depth approach to business studies. Students have to choose between a general stream or one of four concentrations for specialization. B.B.A. students can also choose between four profiles to add complementary skills.

## B.B.A. Concentrations:

- Accounting
- Finance
- Global Management and Leadership
- Marketing and Entrepreneurship


## B.B.A. Profiles:

- Co-operative Education
- Entrepreneurship
- Information Technology
- International Business

Minor programs are also available in both Business Administration and Entrepreneurship. Neither of these, however, is open to business students. Joint programs with other programs at Bishop's University include Majors in Arts Administration, Information Technology, as well as a Major and Minor in Sports Studies. A certificate in Business Administration is also available.

We pride ourselves on having an experiential learning focus within the Williams School of Business whereas each course aims at providing real-life assignments that enable students to build practical competencies and enrich their c.v.

The Williams School of Business also encourages students to develop an international awareness of different business practices and cultures. Students have the opportunity to participate in an exchange program that allows them to study abroad for up to one year at any partner university in over 50 countries worldwide. The Williams School of Business is accredited with the Network of International Business Schools (NIBS). An international component is also reflected in most of our courses, in our international student exchange program, workshops, conferences, case competitions and faculty involvement in international research projects.

The Williams School of Business offers a Co-operative Education Program which combines a student's academic program with integrated work experiences through full-time work terms and regular academic sessions. The work terms are designed to present the students with the opportunity to blend theory and practice and to gain relevant work experience.

The courses and programs described in the following pages are designed to prepare our graduates for full and enriched participation in their chosen profession.

## Applying to All Business Programs

Enrolment in the Williams School of Business is limited. Students must have a minimum R score of 24 from CEGEP and $80 \%$ from high school to be considered for admission to these programs.

## a. B.B.A. or B.A. Business Major

To enter a Business program, CEGEP graduates must have a Quebec collegial diploma (D.E.C.), or the equivalent, including Mathematics 201-NYC (201-105) and 201-NYA (201-103). Students having the required prerequisites can complete their undergraduate programs in three years. CEGEP students lacking these prerequisites will need to add them to their program.

High School students entering the B.B.A. or B.A. Business Major programs who do not have one of the following mathematics courses will be required to take an additional mathematics course (MAT 190) outside of their degree requirements before being able to enrol in MAT 196: BC/YT: Pre-Calculus 12, AB/ NT/NU: Math 30-1, SK: Pre-Calculus 30 or Calculus 30, MB: Pre-Calculus 40, ON: Advanced Functions 4U or Calculus \& Vectors 4U, NB: Pre-Calculus 120A/120B or Calculus 120, NS: Pre-Calculus 12 or Calculus 12, PEI: Math 611B or Math 621B, NL: Math 3200 or Math 3201 or Math 3208.

International students will have their files evaluated on a case-by-case basis.

Students in a Business program where the mathematics courses are required will be able to use these courses as non-business electives except for MAT 190.

Students are required to complete MAT 196 and MAT 197 within the first 30 credits of their program at Bishop's University for students that were advanced at least 24 credits and within 45 credits for students that were advanced less than 24 credits.

## b. Major in Management

There is no mathematics course required to be admitted in the Major in Management, but students must first be admitted to another major to ask for admission to the Major in Management. See Section 4b Transfers from other Bishop's programs under the Regulations applying to all Business programs section for more information about additional admission requirements for this program.

## c. Computer Literacy

Students are expected to have a basic computer literacy in the following areas - word processing, spreadsheets and databases.

## Business Programs

I. B.B.A. ( 120 credits)

Required core courses ......................................... 39 credits
Concentration stream courses ........... between $30-42$ credits
Business electives between 9-21 credits
Non-Business electives* 30 credits
*It includes the required MAT 196 and MAT 197 courses that must be completed if no advanced credits were received for them.

## The B.B.A. requires the completion of the following courses:

| BAC 121 | Purposes of Accounting |
| :--- | :--- |
| BAC 221 | Introduction to Managerial Accounting |
| BCS 220 | Management Information Systems |
| BHR 221 | Organizational Behaviour |
| BHR 224 | Human Resource Management |
| BMA 140 | Statistical Analysis for Business Decisions I |
| BMG 100 | Understanding Business and Society |
| BMG 215 | Introduction to International Business |
| BMG 311 | Business Policy |
| BMK 211 | Marketing Management |
| BMS 231 | Operations Management |
| ECO 102 | Principles of Economics: Microeconomics |
| ECO 103 | Principles of Economics: Macroeconomics |
| ILT 100 | Information Literacy and |
|  | Critical Thinking Lab (1-credit lab) |

Note: All required Business core courses are normally offered in each semester (Fall and Winter).

In addition to the core courses, students will also be required to successfully complete the concentration streams or general business stream courses, Business electives courses and Non-Business electives courses for a total of 120 credits. Visit our website to know more about suggested course sequencing. https://www. ubishops.ca/academic-programs/williams-school-of-business/ac-ademic-advising/course-sequences/.

General Business Stream (33 credits)
CONGST
This general stream allows students to design their own stream. Students may select courses from any other stream based upon their personal interest and objectives. Students are advised to consult with the Chair or the Academic Advisor for assistance in course selection.
All Williams of Business Faculty
General Business Stream Courses: 11 courses

## The following courses are required for this stream:

BFN 100 Basic Finance
Any 7, 300-level Business courses*
Any 3, Business courses
Plus 18 credits of Business electives
*BMG 391/392/393 cannot count as 300-level Business courses but only as Business electives.

Students pursuing any concentration are not eligible to graduate with the General Business stream.

## Concentration Streams

Within the B.B.A. program, the Williams School of Business offers concentration streams in a variety of Business disciplines. A concentration stream is comprised of a total ranging between 30 and 42 credits depending on the concentration. In order to be credited with a concentration as part of the B.B.A., all of the stream requirements must be completed. Students should consult the Area Group Coordinator of each concentration stream or the Academic Advisor for course selection advice.

## Accounting Concentration Stream (42 credits)

CONACT
Knowledge of accounting is fundamental to all disciplines in business. The skills acquired in the program prepare students for positions of leadership in organizations spanning all sectors of the economy including, senior management, strategic government positions, consulting, teaching, auditing and finance.

At the Williams School of Business, this stream is accredited by the Order of Certified Professional Accountants of Quebec. Professors Gandey, Hivert, Turmel

Accounting Concentration Stream Courses: 14 courses The following courses are required for this concentration:

BAC 122 Financial Accounting
BAC 211 Intermediate Financial Accounting I
BAC 212 Intermediate Financial Accounting II
BAC 311 Advanced Financial Accounting
BAC 312 Intermediate Managerial Accounting
BAC 322 Management Control
BAC 331 Taxation I
BAC 332 Taxation II
BAC 340 Auditing: Systems and Control
BAC 341 Auditing: The Process
BFN 200 Introduction to Finance
BFN 203 Corporate Finance
BMA 141 Statistical Analysis for Business Decisions II
BMG 221 Business Law
Plus 9 credits of Business electives

## Please note:

Students who were advanced at least 24 credits are advised to take BAC 121 in their first semester, BAC 122 in their second semester, and BAC 211 commencing their 2nd year.
Students having been advanced additional credits are encouraged to consult with the Academic Advisor as soon as they have accepted their offer of admission.
Students contemplating an accounting designation are advised to consult with the Accounting Area Group Coordinator and the respective associations (territorial, provincial, national or outside Canada) for the specific details of the requirements. Additional courses in a graduate program are required for the CPA designation.

## Finance Concentration Stream

## ( 36 credits)

CONFNC
The curriculum is designed to provide students with broad exposure to all dimensions of finance. Students will learn professional skills and acquire technical and analytical competence to pursue challenging careers in corporate finance, portfolio management,
and securities research. In addition to a thorough understanding of the principles of financial management, students will be exposed to both theoretical and practical aspects of investment management, capital budgeting, capital formation, and risk hedging. Opportunities to explore current topics and apply practical solutions to current theory are also provided. When following a prescribed sequence of courses, students are qualified to write the first level C.F.A. (Chartered Financial Analyst) exam immediately upon graduation. Students can also compete in their last two years of studies for managerial positions within the SEED Portfolio.

## Professors Atanasiadis, Béquet, Toupin, Valsan

Finance Concentration Stream Courses: 12 courses The following courses are required for this concentration:

BAC 122 Financial Accounting<br>BFN 200 Introduction to Finance<br>BFN 203 Corporate Finance<br>BFN 210 Capital Markets<br>BFN 306 Behavioral Finance<br>BFN 315 Financial Derivatives<br>BFN 336 Topics in Finance II<br>BFN 341 Corporate Governance<br>BFN 352 Investment Analysis and Portfolio Management<br>BFN 353 Financial Institutions Management<br>BMA 141 Statistical Analysis for Business Decisions II<br>BMG 221 Business Law<br>Plus 15 credits of Business electives

## Please note:

BFN 356 SEED Portfolio (6 credits) is considered a Business elective course and is not part of the concentration.

## Global Management and Leadership Concentration Stream (30 credits)

CONGML
As organizations and workers conduct more work outside their home countries, their ability to understand and work in these environments is critical to their operations and success. The ability to attract and develop people who can work in a global environment and who can actively engage, motivate, and provide leadership will be a key component. These factors will all be critical in defining any organization's competitive advantage.

By anticipating and understanding future economic, social, and cultural forces, the focus of our program is to shape strategic leadership and human resource skills of our students in understanding the forces impacting all stakeholders. With a focus on leadership, global business, and human resources, our students will be able to clearly identify changes, be able to plan and coordinate resources, and align organizations cultures to be successful in the future.

Through delving into the richness of research completed by both academics and practitioners, our students will be able to undertake positions in both domestic and foreign firms, obtain positions with human resources and leadership development, and cultural management.

Professors Fortier, Gallina, Palmer, Rutihinda, Teed

## Global Management and Leadership Concentration Stream

 courses: 10 coursesThe following courses are required for this concentration:
BFN 100 Basic Finance
BHR 315 Training and Development*
BHR 326 Personnel Recruitment \& Selection*
BHR 328 Occupational Health, Safety, and Wellness*
BMG 221 Business Law
BMG 315 International Management
BMG 323 Interpersonal Skills
BMG 325 Leadership in a Multicultural World
Plus any 2 courses (6 credits) of:
Plus any 2 courses (6 credits) of:
BMG 335 Global Value Chain Analysis
BMG 335 Global Value Chain Analysis
BMG 345 International Marketing and
BMG 345 International Marketing and
Export Management
Export Management
BMG 355 International Entrepreneurship
BMG 355 International Entrepreneurship
Plus 21 credits of Business electives
Plus 21 credits of Business electives

Students in this concentration are encouraged to include a language course as part of their non-business electives.
*Courses marked with an asterisk have been designed to give discipline-specific knowledge required for the Certified Human Resources Professional (CHRP) designation. In order to be considered as a CHRP, students should consult the respective human resources professional association (territorial, provincial, national or outside Canada).

## Marketing and Entrepreneurship Concentration Stream (42 credits)

CONMKE
The Marketing and Entrepreneurship concentration aims to build the skills that students need for an exciting career in marketing and/or to start a high-growth business of their own. We combine academic instruction and hands-on experience to build important intellectual and professional tools that ignite students' ingenuity and entrepreneurial thinking. We expose students to cutting-edge marketing techniques, encourage their creativity and develop their critical thinking, analytical, strategic and leadership skills. Our approach to learning and teaching is reflective, experiential, and engaging, led by experienced faculty who demonstrate mastery in their professions, so that students will receive:

- Practical opportunities working with area industry on real projects;
- The skills and opportunity to create a launch-ready business of their own;
- Development of high demand business skills and abilities.
Professors Davis, Reid, Wang


## Marketing and Entrepreneurship Concentration <br> Stream Courses: 14 courses

The following courses are required for this concentration:
BFN 100 Basic Finance
BFN 215 Small Business Finance
BMA 141 Statistical Analysis for Business Decisions II
BMG 214 Introduction to Entrepreneurship:
New Venture Creation
BMG 323 Interpersonal Skills
BMK 214 Consumer Behaviour

BMK 291
BMK 321
BMK 323
BMK 332
BMK 340 Product Strategy and Innovation
BMK 355 Happiness Marketing
BMK 381 Marketing Policies
BMK 392 Entrepreneurship Practicum II
Plus 9 credits of Business electives

## Co-operative Education Profile

(7 or 10 credits)
PROCOP (Application required)
The Co-operative Education Program combines a student's academic program with integrated paid work experiences through fulltime work terms and regular academic sessions. The work terms are designed to present the students with the opportunity to blend theory and practice and to gain relevant work experience.

Each co-operative work term is between 12 and 16 weeks in length and the student will be registered in a 3 -credit Co-operative Placement course (BMG 391, BMG 392, BMG 393). All work terms must be completed before the student's final academic semester. While every effort will be made to find a suitable placement for all students in the program, no guarantee of placement can be made since the employment process is competitive and subject to market conditions.

## Co-operative Education Profile Courses: 3 or 4 courses The following courses are required for this profile: <br> BMG191 Fundamentals of Workplace Preparation and Professional Development ( 1 credit)* <br> BMG391 Co-operative Education Placement I (3 credits) <br> BMG392 Co-operative Education Placement II (3 credits) <br> BMG393 Co-operative Education Placement III (3 credits)**

* This course must be successfully completed before doing the first work placement and is not included in the calculation of the cumulative average.
** Students who were advanced at least 24 credits will not be required to complete this third work placement to graduate with the Co-operative Education Profile. Students who were advanced less than 24 credits will be required to complete this third work placement.

All courses will be considered Business electives and will count towards the 120 -credit program, except for BMG 191. For students completing a B.A. Business Major, these courses will only be recognized in the "Business or non-Business electives (18 credits)" component of the program.

## Admission to the Co-operative Education Profile

Students must submit an application to be admitted to the program. Full-time students in the Honours B.B.A., B.B.A. or B.A. Business Major programs who have completed the entire application, who have successfully completed BMG 191 and who have a minimum cumulative average of $70 \%$ upon application
are eligible for admission to the Co-operative Education Profile. Students receiving advanced credits will be evaluated on a case-by-case basis; however, students who receive advanced credits in excess of 54 credits or who are in business as a second major will not be eligible for the co-operative education profile. Students who are in their first year of studies will be given admission priority. All other students will be evaluated on a case-by-case basis.

A student is then required to maintain a minimum cumulative average of $70 \%$ and its full-time status in order to be eligible to remain in the Cooperative Education Profile and to participate in any of the program's activities. Please consult the Co-operative Education section on the Bishop's University website for important dates, deadlines and updates at www.ubishops.ca/coop.

## Work Term Registration

Once a student has signed the Co-operative Education Agreement, the student may not drop the course associated with work placement, except for exceptional circumstances. A student who decides to do so will not be able to stay in the Co-operative Education Profile.

## Evaluation

Each course is graded on a pass/fail basis and this grade is not included in the student's cumulative average. The evaluation is the responsibility of the Department Chair. Successful completion of the work term is based upon the receipt of a satisfactory job performance report from the employer and a satisfactory work term report and self-evaluation submitted by the student.

The job performance report will be completed by the employer, using guidelines supplied by the Williams School of Business. It is the student's responsibility to ensure that the employer sends the completed evaluation to the Co-op and Academic Advisor supervising the placement. Employer evaluations are confidential and are not reported on the student's transcript.

The work term report covers the comprehensive analysis of competencies acquired during the work placement. An outline of relevant competencies will be provided to students.

Normal academic regulations apply to the conduct and evaluation of the courses.

Entrepreneurship Profile ( 12 credits) PROENT
In accordance with the growing entrepreneurial movement worldwide and the wide interest of our students, we have designed a profile that enables the understanding of the entrepreneurial process of starting, growing and harvesting a new venture. By performing both in-depth comprehension of entrepreneurial process and hands-on assignments, students will learn how the entrepreneurial mind thinks, how a product/market vision is developed, how an opportunity is assessed, and how resources are harnessed to take advantage of that opportunity, throughout the entrepreneurial networks and community. The entrepreneurship profile is a relevant and valuable add-on to any business concentration, except the Marketing and Entrepreneurship concentration.

## Entrepreneurship Profile Courses: 4 courses

The following courses are required for this profile:
BMG 214 Introduction to Entrepreneurship: New Venture Creation
BMK 214 Consumer Behaviour
BMK 291 Entrepreneurship Practicum I

BMK 392 Entrepreneurship Practicum II
Students pursuing the Marketing and Entrepreneurship concentration are not eligible to add the Entrepreneurship profile to their concentration.

## Information Technology Profile (12 credits) PROINF

The fundamental liaison between business and IT is that business people first identify the business problems, develop logical solutions and then choose the appropriate IT to support these solutions. The premise for this unique approach is that business initiatives should drive technology choices. The expected learning outcomes of the IT profile are to enable students understand typical business problems and how these problems are resolved by typical IT solutions. The IT profile is a relevant and valuable add-on to any business concentration.
Professors Agourram, Gagnon

## Information Technology Profile Courses: 4 courses

Any four co urses amongst the following are required for this profile:

BCS 210 Technology Entrepreneurship
BCS 212 E-Business Technology and Management
BCS 216 Business Information Technology Strategy
BCS 313 Information Technology Project Management
BCS 320 Business Intelligence and Data Analytics
BMA 142 Quantitative Modeling

## International Business Profile (12 credits) PROIBU

The international business profile provides students with a multidisciplinary analytical framework for mapping the global business environment, analyzing international business strategies, and the management of international business operations. It builds on the existing strengths of the core business program to provide a global perspective and the necessary tools for the management of multinational enterprises and the internationalization processes of small and medium size enterprises. It exposes students to a wide range of resources and analytical models for analyzing and managing country political risk, currency risks, economic risks, and cross-cultural differences. By taking this profile students will examine and apply existing analytical frameworks for global strategy formulation, knowledge transfer across foreign subsidiaries, management of international joint ventures and strategic alliances, management of international mergers and acquisitions, global supply chain management, financial management of international firms, international marketing and export management. Students are strongly encouraged to complement this profile with a study abroad exchange. The International Business profile is a relevant and valuable add-on to any business concentration, except the Global Management and Leadership concentration.
Professors Béquet, Fortier, Rutihinda

## International Business Profile Courses: 4 courses

## The following courses are required for this profile:

BMG 315 International Management
BMG 345 International Marketing and Export Management
BFN 361 International Finance

## Plus any one course ( $\mathbf{3}$ credits) of:

BMG 325 Leadership in a Multicultural World
BMG 335 Global Value Chain Analysis
BMG 355 International Entrepreneurship
Students pursuing the Global Management and Leadership concentration are not eligible to add the International Business profile to their concentration.

## II. Honours B.B.A. (126 credits)

BBH+ Concentration
Doing an honours program in the WSB automatically adds an additional 6 credits to your B.B.A. program.

To qualify for an Honours B.B.A. degree, a candidate must:

1. complete their regular B.B.A. Program
2. apply for entrance into the honours program in the term prior to their last 30 credits in the program, and have, at that time, a cumulative average of $75 \%$ in all courses taken in their program.
3. obtain a cumulative average of $75 \%$ upon graduation
4. register for BMG 352 (Honours Project) - 6 credits

## III. B.A. Business Major (120 credits)

Required core courses 42 credits
Business electives $\qquad$ 18 credits
Non-Business electives* 42 credits
Business or non-Business electives**. $\qquad$ 18 credits

* If no credits were advanced for MAT 196 and MAT 197, students must successfully complete these courses as part of their program.
** Co-op Business electives courses (BMG 391, BMG 392 and BMG 393) will only count in this portion of the program.


## The B.A. Business Major requires the completion of the following courses:

BAC 121 Purposes of Accounting
BAC 221 Introduction to Managerial Accounting
BCS 220 Management Information Systems
BFN 100 Basic Finance
BHR 221 Organizational Behaviour
BHR 224 Human Resource Management
BMA 140 Statistical Analysis for Business Decisions I
BMG 100 Understanding Business and Society
BMG 215 Introduction to International Business
BMG 311 Business Policy
BMK 211 Marketing Management
BMS 231 Operations Management
ECO 102 Principles of Economics: Microeconomics
ECO 103 Principles of Economics: Macroeconomics
ILT 100 Information Literacy and Critical Thinking Lab (1-credit lab)
Note: All required Business core courses are normally offered in each semester (Fall and Winter).
In addition to the core courses, students will also be required to successfully complete the Business electives, Non-Business electives and optional courses for a total of 120 credits.

## IV. Major in Management <br> (48 credits)

MAJMGT
(Application required - see section $4 b$ Transfers from other Bishop's programs under Regulations Applying to All Business Programs)
(For non-business students only. Students following the B.A. Arts Administration and B.A. Major Information Technology are not eligible for the B.A. Major in Management. Students following the B.A. Major Sports Studies Business and Society concentration program are authorized to combine their program with this program but the business courses required by this program will not be doubled counted within the "optional" credits of the Business and Society concentration.)

The Major in Management requires the completion of the following courses:

Required core courses ............................................ 36 credits
Business electives*.
12 credits

## The 12 required core courses are:

BAC 121 Purposes of Accounting
BAC 221 Introduction to Managerial Accounting
BCS 220 Management Information Systems
BFN 100 Basic Finance
BHR 221 Organizational Behaviour
BHR 224 Human Resource Management
BMA 142 Quantitative Modeling
BMG 100 Understanding Business and Society
BMG 214 Introduction to Entrepreneurship:
New Venture Creation
BMG 215 Introduction to International Business
BMK 211 Marketing Management
ECO 103 Principles of Economics: Macroeconomics
Plus 12 credits of Business electives*

* Prerequisites for the chosen Business electives courses must have been met or if not, permission from the Departmental Chair must have been granted


## V. Joint Programs

1. B.A. Arts Administration - see the Division of Humanities section of the calendar for program requirements.
The 75 -credit interdisciplinary program combines the study of business, the creative arts and arts administration to provide students with the skills and knowledge needed to be active participants in the cultural sector. In addition to the core courses in business and the core courses in one of the creative arts (Drama, Fine Arts, Film Studies, Music or Public History), students also take 15 required credits in Arts Administration. As they proceed through the program, they will enrol in two practicum courses: AAD 253 (Internal Practicum), where they will be placed with an on-campus organization (Centennial Theatre, Foreman Art Gallery, Musique Chez Nous, Drama department, etc.) for their first work experience; and nearer to graduation AAD 353 (External Practicum), in an off-campus cultural venue consistent with their disciplinary focus.
2. B.A. Major in Information Technology - see the Computer Science section of the calendar for program requirements This program provides the necessary skills and knowledge to work/design/participate within organizations that manage large amounts of data and provide services to a large number of users.
3. B.A. Major in Sports Studies - see the Sports Studies Major and Minor section of the calendar for program requirements.
This program exposes students to the social, biological, political, business and economic aspects of sport in society.

## VI. Minor in Business Administration ( 24 credits) MINBUS

(Application required - see section 4b Transfers from other Bishop's programs under Regulations Applying to All Business Programs)
(For non-business students in good University Academic Standing only. Students following the B.A. Arts Administration and B.A. Major Information Technology are not eligible for the Minor in Business Administration. Students following the B.A. Major Sports Studies Business and Society concentration program are authorized to combine their program with this program but the business courses required by this program will not be doubled counted within the "optional" credits of the Business and Society concentration.)
The Minor in Business Administration requires the completion of the following courses:

BAC 121 Purposes of Accounting
BMG 100 Understanding Business and Society
BMA 140 Statistical Analysis for Business Decisions I (requires MAT 196)
BFN 100 Basic Finance (requires BAC 121, ECO 103 and MAT 196)
BMK 211 Marketing Management
Plus 9 credits of Business electives
It is important to note the following:

1. While the Minor in Business Administration appears to require the completion of 24 credits, in fact a minimum of 30 credits is generally necessary as a result of required course prerequisites for BMA 140 and BFN 100 (see above).
2. Students who have been granted course equivalence for BMA 140 must replace BMA 140 with a Business elective course.
3. Students pursuing the Minor in Business Administration must respect all prerequisite requirements for senior Business courses they take as Business electives. For example, a student wishing to take Human Resource Management (BHR 224) must first take Organizational Behaviour (BHR 221). In some cases, required prerequisites may include MAT 196 and MAT 197.
4. It is strongly suggested that students consult the Academic Advisor or the Department Chair prior to embarking on this Minor.

## VII. Minor in Entrepreneurship ( 24 credits)

MINBEN
(Application required - see section 4 b Transfers from other Bishop's programs under Regulations Applying to All Business Programs)
(For non-business students in good University Academic Standing only. Students following the B.A. Arts Administration and B.A. Major Information Technology are not eligible for the Minor in Entrepreneurship. Students following the B.A. Major Sports Studies Business and Society concentration program are authorized to combine their program with this program but the business courses required by this program will not be double counted within the "optional: credits of the Business and Society concentration.)
The Minor in Entrepreneurship requires the completion of the following courses:

BMG 214 Introduction to Entrepreneurship:
New Venture Creation
BMK 211 Marketing Management
BMK 214 Consumer Behaviour
BMK 291 Entrepreneurship Practicum I
BMK 392 Entrepreneurship Practicum II
Plus 9 credits of Business electives
It is important to note the following:

1. Students pursuing the Minor in Entrepreneurship must respect all prerequisite requirements for senior Business courses they take as Business electives. For example, a student wishing to take Human Resource Management (BHR 224) must first take Organizational Behaviour (BHR 221). In some cases, required prerequisites may include MAT 196 and MAT 197.
2. It is strongly suggested that students consult the Academic Advisor or the Department Chair prior to embarking on this Minor.

## VIII. Certificate in Business Administration ( 30 credits)

CONBUS
This certificate may be completed on a full-time or a part-time basis.

## Description and objectives:

The Certificate in Business Administration provides an academic background in Business Administration to students who are pursuing or wishing to pursue a career in management in the private or public sectors. The Certificate program presents a broad survey of underlying disciplines and an introduction to the functional areas in Business Administration, both theoretical and practical.

## Admission requirements:

(See Regulations governing Certificate programs).

## Prerequisites to the program:

The Certificate in Business Administration requires that applicants complete MAT 196.

## The Certificate in Business Administration requires the completion of the following courses: <br> BAC 121 Purposes of Accounting <br> BMG 100 Understanding Business and Society <br> BMA 140 Statistical Analysis for Business Decisions I (requires MAT 196) <br> BFN 100 Basic Finance (requires BAC 121, ECO 103 and MAT 196) <br> BMK 211 Marketing Management <br> Plus 15 credits of Business electives

## Regulations Applying to All Business Programs

## 1. Exemptions

Students who have been granted exemptions from Required Business core courses must replace them with Business courses. Students are advised to consult with the Academic Advisor or Department Chair prior to course selection.

## 2. Double counting policy

In cases where B.B.A. students are pursuing more than one concentration, double counting will be allowed and there will not be any need to replace the courses with other business courses. In order to graduate with more than one concentration, students will be required to have completed all requirements for each concentration.

## Exceptions

Students pursuing any concentration are not eligible to graduate with the General Business stream.
Students pursuing the Global Management and Leadership concentration are not eligible to add the International Business profile to their concentration.
Students pursuing the Marketing and Entrepreneurship concentration are not eligible to add the Entrepreneurship profile to their concentration.

## 3. Double Failure Rule

Any student who twice receives a failing grade in a course offered by the Business Department or in ECO 102, ECO 103, MAT 196 or MAT 197 will not be permitted to repeat the course again. If this is a required course to graduate with any business programs, the student will not be eligible to graduate with that program. This regulation also applies to students in non-business programs where a business course is required to complete their degree. Receiving twice a failing grade in a course precludes a student from later receiving transfer credits for this course.

## 4. Transfers

## a. Between Business programs

Students already enrolled in the B.B.A. or the B.A. Business Major wishing to transfer to the Major in Management can do so at any time upon request, provided that they have no double failure in a course required by the Major in Management. They would then have 12 months following the transfer to be admitted
in an additional primary major program. Failing to do so will prevent them from graduating with a Major in Management.

Students in the B.B.A. or B.A. Business Major can transfer between the two programs at any time upon request.

## b. From other Bishop's programs

To be eligible to transfer into either the B.B.A. or B.A. Business Major from a non-business program, a student must have successfully completed at least 30 credits at Bishop's and have achieved a minimum cumulative average of $75 \%$ based on all courses attempted. Students may also be required to meet with the Dean of Business for an interview. The number of student transfers is determined based on final enrolment figures and the quota for the School's maximum enrolment. Deadline to apply is May 31 for the Fall semester and October 1 for the Winter semester. This regulation also applies to part-time general students.

To be considered for entry into the Major in Management, students must already be admitted to a primary major at Bishop's, have successfully completed at least 30 credits at Bishop's University and have achieved a minimum overall average of $75 \%$ based on all courses attempted. The Major in Management can only be a second major.

To be considered for entry into the Minor in Business Administration, students must be in good University Academic Standing.

To be considered for entry into the Minor in Entrepreneurship, students must be in good University Academic Standing.

## 5. WSB Academic Standing

Notwithstanding the University regulations on Academic Standing, the Williams School of Business has its own regulations on maintenance of good standing. Students with a cumulative average of $60 \%$ or more are in good standing in the B.B.A., B.A. Business Major or Major in Management programs.

After 24 credits attempted, students with a cumulative average less than $50 \%$ must withdraw from their program. Those with a cumulative average between $50 \%$ and $59 \%$ will be permitted to remain in the Williams School of Business for one semester in which they must improve their cumulative average to at least $60 \%$. Students who do not achieve good standing will not be eligible to continue in the B.B.A., B.A. Business Major or Major in Management programs at Bishop's University, nor will they be eligible to later transfer back into these programs.

Students who fail to maintain the WSB Academic Standing in Business will be required to make a choice of an alternate degree program by the end of two consecutive semesters following their dismissal from the Business program. Should they fail to do so, or fail to be accepted into an alternate program, they will not be permitted to register as a full-time student in the next semester.

Students in the Certificate in Business Administration must meet the Academic Standing criteria for part-time students as outlined in the Academic Calendar and must also fulfill the requirements for maintaining the WSB Academic Standing.

## 6. Graduation "With Distinction"

The notation "with Distinction" will appear on the transcript of students who graduate with a cumulative average of $80 \%$ or more and is only available for first degree students.

## 7. Additional Graduation Requirement (B.B.A., B.A. Business Major and Major in Management)

A student must have a minimum cumulative average of $60 \%$ in all courses taken in order to graduate with a B.B.A., B.A. Business Major or a Major in Management degree. Calculation of this average will employ the same methodology as in the "WSB Academic Standing" section.

Students will need to meet all the requirements in their primary major to be allowed to graduate with the Major in Management.

## 8. International Student Exchanges

Students need a minimum cumulative average of $70 \%$ to qualify to apply to go on exchange and must maintain a minimum cumulative average of $70 \%$ in the semester prior to leaving on exchange to remain eligible to go on exchange. Also, students studying on exchange, whether it be for one or multiple semesters, will only be recognized a maximum of 9 credits in total in their concentration. Students are invited to consult with the Departmental Chair and the International students' office for more important academic information concerning exchanges and course equivalencies approval.

## Exceptions

B.B.A. students in the Accounting, Finance or Marketing and Entrepreneurship concentration streams are allowed to take BMA 141 Statistical Analysis for Business Decisions II while on exchange, in addition to these 9 credits.
B.B.A. students in the Global Management and Leadership concentration or the General Business stream are allowed to take 3 other credits in their concentration while on exchange, in addition to these 9 credits.

## BUSINESS COURSES

## BAC 121 Purposes of Accounting 3-3-0

The study of accounting and its role in the analysis and communication of financial events. The information provided by accounting, particularly through the financial statements, and issues associated with existing accounting processes will be explored.

## BAC 122 Financial Accounting

3-3-0
An examination of the measuring, recording and reporting of financial information with reference to specific items in the financial statements.
Prerequisite: BAC 121
BAC 211 Intermediate Financial Accounting I 3-3-0
Further development of accounting principles. Particular emphasis is placed on an in-depth evaluation of financial statement presentations in Canada.
Prerequisite: BAC 122
BAC 212 Intermediate Financial Accounting II $\mathbf{3 - 3 - 0}$
An in-depth consideration of specific accounting topics (e.g. accounting for income taxes, partnership accounting, current value accounting). Current practices and the relevant CICA recommendations will be reviewed in terms of theoretical concepts and principles.
Prerequisite: BAC 211
BAC 221 Introductory Managerial Accounting 3-3-0 This course is an introduction to the tools of accounting information for management decision making. Topics include comparison of financial and managerial accountants, job order costing, process costing, cost behaviour, cost-volume relationships, activity based costing, budgeting, standard costs and reporting for control.
Prerequisite: BAC 121

BAC 311 Advanced Financial Accounting
3-3-0
A study of accounting theory and application related to the following topics business combinations, long-term intercorporate investments, branch accounting, non-profit accounting, and foreign exchange. Emphasis is on accounting principles currently accepted in Canada.
Prerequisite: BAC 212
BAC 312 Intermediate Managerial Accounting 3-3-0 This is the second course in managerial accounting which covers new topics such as balanced scorecards, limitations of reporting for control, non-financial measurements and outsourcing. Furthermore, application of the various techniques learned in BAC221 will be applied.
Prerequisites: BAC 212 and BAC 221
BAC 322 Management Control 3-3-0
Written and oral analysis of management control problems. Topics include decision models, performance evaluation and decentralization. This course also applies theories from other accounting courses into practice via case analysis. Prerequisite: BAC 312
BAC 331 Taxation I 3-3-0
Introduction to income tax law in Canada with primary emphasis on the determination of the tax liability of individuals in receipt of various sources of income. Topics include Residence, Tax Status, Capital Cost Allowances, Capital Gains, Property Income and Tax Credits. Issues such as the equity fairness and complexity of the tax system, tax evasion and tax planning are considered.
Prerequisite: BAC 122
BAC 332 Taxation II
3-3-0
This course builds upon the principles and concepts of Canadian Income Tax introduced in BAC 331. In particular, it examines the application of income tax law as it applies to Corporations. Attention is given to effective income tax planning for shareholder - manager remuneration, estates and for capital gains deferrals. Prerequisite: BAC 331
BAC 340 Auditing: Systems and Control 3-3-0
All organizations require reliable and secure information systems in order to successfully conduct their day-to-day operations. For many businesses, sophisticated accounting information systems are in place and internal control is crucial in the process of producing reliable financial information. In the context of the information age, this course examines corporate responsibility as well as the function of computerized systems. Topics such as accounting systems development, implementation of controls, fraud detection and E-commerce security will be explored.
Prerequisite: BAC 212
BAC 341 Auditing: The Process $\quad$ 3-3-0 The concept of internal control and fundamentals of auditing. Topics include: legal and moral responsibilities of the auditor; controls required in principal accounting systems; selection of appropriate audit techniques; and preparation of audit reports. Prerequisite: BAC 340
BCS 115 Spreadsheet Applications $\quad \mathbf{1 - 0 - 1}$
Use of spreadsheets has become very common in all business disciplines to organize complex issues into simpler models. Its use has become essential to increase one's productivity and decision support. Workers and prospective employees are required to learn Spreadsheet software to enter or remain in the workplace. This course will provide a strong foundation to allow students to utilize spreadsheets in any discipline and also adapt to their specific need. The topics include: working with formulas and Functions, Creating charts and Graphics, analyzing data with Excel, using Advanced Excel features such as, Pivot tables, what if Analysis, goal seeking and solver. This course does not count towards overall degree credit count.
BCS 210 Technology Entrepreneurship
3-3-0
This course is designed for students interested in learning about the fundamental issues related to starting and managing technology-based new ventures. The course encourages students to consider how technology-based solutions can solve economic and socially oriented problems. Students will particularly learn how disruptive technology displaces existing markets. Topics include: Startup business models, business plans, funding, and risk assessment and management
Prerequisite: BCS 220
BCS $212 \quad$ E-Business Technology and Management 3-3-0
This course helps students build the knowledge and skills needed to face today's electronic business challenges, opportunities, and issues. Electronic Business Technologies focuses on the integration of information technologies with business processes and strategies within a dynamic legal and business environment. At the base of Electronic Business is the fact that the application of Internet and information technology to business processes leads to remarkable new ways of conceiving and organizing businesses. This in turn leads to a myriad of innovative
modes of management, new organizational structures and information architectures as well as new laws and legal and corporate strategies. Topics include: business process reengineering, pure and partial electronic commerce, online retail, online consumer behavior, online marketing and advertisement, online business models and revenue models, B2B supply chain reengineering, online payment and security, and ecommerce systems implementations.
Prerequisite: BMK 211
BCS 216 Business Information Technology Strategy 3-3-0
Organizations must understand and operate effectively within their technologybusiness value chains in order to maximize profitability. Developing and executing an effective Information Technology strategy that enables business strategy is critical for creating business value and gaining competitive advantage. This course presents a framework and methodology for assessing, developing and implementing an effective IT strategy that is aligned with business needs. Topics include: IT-business alignment, IT strategy, IT planning, IT value and benefits, IT Governance, IT success measurement, data and information management, managing IT Outsourcing, and the role of the CIO.
Prerequisite: BCS 220

## BCS 220 Management of Information Systems

3-3-0
This course covers the management perspective of Information Systems. An IS Department or IS unit manages data and information which are among the most valuable organizational resources in today's modern businesses. The MIS includes the setting of a direction for information resources, the management of technology resources and the management of the information systems function. A variety of different types of IS will be covered. The list includes Enterprise Resource Planning Systems, Knowledge Management Systems, and Electronic Systems. Prerequisite: BMG 100

BCS 313 Information Technology Project Management
3-3-0
Modern organizations are critically dependent on information technology. It is difficult to find any organizational unit, process, or task that does not rely on some sort of information system. This course covers information systems development from the business perspective. The course educates students in fundamentals of systems analysis and design. The analysis part aims at understanding organizational processes and their informational aspects in order to define possibilities of improving process efficiency and effectiveness. The design part is focused on creating solutions for the improvement of processes and supporting Information systems.
Prerequisite: BCS 220
BCS $320 \quad$ Business Intelligence and Data Analytics
3-3-0
Organizations increasingly rely on data and sophisticated analytical tools to make effective and strategic decisions. This course focuses on enabling students to learn skills to access, prepare, analyze and visualize data to support decision-making and business problem-solving. Students will learn how to implement a variety of data analytic techniques using modern business intelligence tools. At the end of the course, students will be able to identify and structure complex business problems that can be addressed through data analysis, data mining, data visualization, and text mining.
Prerequisite: BMA 140 or SOC 211 or PSY 213 or PHY 101

## BFN 100 Basic Finance 3-3-0

Income, inflation, interest rates, foreign exchange rates, prices of commodities, recessions, etc. are factors affecting businesses performance. Understanding the economic environment as well as the drivers of the different sectors of the Canadian economy and how these are impacting financial statements of businesses is the main focus of this course.

## Prerequisites: BAC 121, ECO 103 and MAT 196

Note: Students having completed BFN 200 are not allowed to take BFN 100 for credits.
BFN 200 Introduction to Finance
3-3-0
This course introduces the study of finance in the context of modern business decision-making. The central focus of the course is the valuation of real and financial assets and the tools used for that purpose. Students will become familiar with such concepts as time value, discount rate, and net present value. These concepts will be presented with the help of real-life examples and cases that will illustrate the many ways in which finance can solve business problems.
Prerequisite: BAC 121, ECO 103 and MAT 196
Note: Students having completed BFN 200 are not allowed to take BFN 100 for credits.

## BFN 203 Corporate Finance

3-3-0
This course represents an introduction to corporate finance. It focuses on the determinants of financial policy at the microeconomic level. The students will become familiar with the issues and challenges faced by a financial manager.

Emphasis will be placed on financial planning and corporate growth, capital structure, and dividend policy decisions.
Prerequisite: BFN 200
BFN 210 Capital Markets

3-3-0
The emphasis in this course is on domestic and international capital markets - stocks, bonds, foreign currencies, etc. Whereas Finance I and Finance II concentrate on internal financial decision making, this course surveys the external environment in which the firm operates. Managers need to know how to satisfy investors' demands and obligations in order to meet their external needs for capital resources. Students interested in a career as a money manager, research analyst, investment sales and virtually any occupation involved with the investment management process should consider this course. Topics will include the efficient market hypothesis, analysis of fixed income and equity securities, derivatives and principles of portfolio management.
Prerequisites: BFN 200 and BMA 140
BFN 215 Small Business Finance
Small business owners or entrepreneurs need to know how to (a) read basic financial statements; (b) understand product costing, initial profit-and-loss development and break-even analysis; (c) manage cash flow; and (d) understand various revenue models. This course will use Excel spreadsheets to develop practical financial projections that are immediately relevant to business operations.
Prerequisite: BFN 100 or BFN 200
BFN 306 Behavioural Finance
3-3-0
This course brings together knowledge from the area of modern finance and cognitive sciences into one unified framework. Students will learn about cognitive biases and how individuals make financial decisions, the role of emotions and heuristics in dealing with complex critical systems, and how individual behaviour aggregates into corporate financial strategies and broad stock market movements. Prerequisites: BFN 203 and BFN 210
BFN 315 Financial Derivatives
3-3-0
Futures and options markets have become increasingly important in the world of finance and investments. It is essential that all professionals understand how these markets work, and how derivatives are valued. This course will study the derivatives markets, assess their characteristics, and describe how they are used by hedgers, speculators and arbitrageurs.
Prerequisites: BFN 203 and BFN 210
BFN 336 Topics in Finance II
3-3-0
This course is expanding on some themes already covered in other Finance courses, or adding new subjects including, but not limited to corporate finance and investments, complexity and networks, trading strategies, derivatives and hedging, foreign exchange risk management, international capital budgeting, risk management in financial institutions, and any other topic that might reflect current research interest of faculty members. The course will be delivered through regular class lectures, individual case studies, or group projects.
Prerequisites: BFN 203 and BFN 210
BFN 341 Corporate Governance
3-3-0
Corporate Governance offers insights into the relationship between economic efficiency and economic organization. The main issues addressed in this course include the comparative analysis of free markets and hierarchies, the nature and allocation of financial claims, the organization and functioning of various corporations around the world, and the connection between ethics and economic performance.
Prerequisites: BFN 203 and BFN 210
BFN 352 Investment Analysis and Portfolio Management $\quad$ 3-3-0 Introduction to the various security instruments and intermediaries and the structure and functioning of the markets within which they are cast. Conventional techniques for evaluating securities, including technical analysis. The construction of a portfolio by traditional diversification, randomized selection and efficient diversification methods.
Prerequisites: BFN 203 and BFN 210
BFN 353 Financial Institutions Management
3-3-0
This course provides students with an integrating framework for examining various types of financial institutions and the means of managing their operations. Topics include uniqueness of financial institutions; application of portfolio and corporate finance theories to the management of assets, liabilities, capital structure and offbalance sheet operations; interest rate and liquidity risk exposure; loan portfolio management, loan pricing and credit rationing; capital adequacy and regulatory environment. The strategic repercussions for such institutions, given the rapidly changing financial and regulatory environments, are also reviewed through the analysis of cases illustrating current issues.
Prerequisites: BFN 203 and BFN 210

BFN 356
SEED Portfolio
6-3-0
The SEED course has been designed with the objective of providing finance students with the means to practically apply their knowledge. The course gives students the opportunity to act as investment managers, in order to gain a more comprehensive understanding of portfolio management. This will be accomplished by having students invest in recognized North American equities, after prudent research and consulting with an external advisory board.
Students will apply to the program upon entering their penultimate year. After an application process which includes resumes and interviews, students will be selected as Research Assistants. Research Assistants have to complete two company analyses, which they will present to their External Board. As well, they have to answer any requests their Portfolio Managers may have. Upon completion of a year as Research Assistants, students will move into the position of Portfolio Managers, conditional upon the approval of the Faculty Advisor. Portfolio Managers are in charge of setting up the strategy for the portfolio. They are responsible for all buy/sell/hold decisions. Emphasis will be on the importance of analysis and presentation, in order to reach consensus among Portfolio Managers, and on the use of appropriate decision making tools.
Prerequisite: Permission of instructor.
BFN 361 International Finance 3-3-0
This course provides a broad overview of the major aspects of finance in an international setting. The focus will be on measuring and coping with foreign exchange risk from the managerial perspective of multinational corporations. The main topics of this course include the examination of spot, forward and futures markets, the use of derivative contracts, international financial markets, international financing, capital budgeting, direct foreign investment and international mergers and acquisitions.
Prerequisite: BFN 100 or BFN 200
BHR 221 Organizational Behaviour
3-3-0
This course is designed as an introduction to the study of individual and group behaviour in organizations. The purpose is to enable students to understand human behaviour and its determinants in the organizational setting and, therefore, to deal with it effectively. Throughout the course emphasis will be placed on students' conceptualization of the theoretical aspects of organizational behaviour, as well as the practical application of these theories through case analyses.
Prerequisite: BMG 100
Note: Students who complete BHR221 cannot receive credit for PSY309. For prerequisite purposes PSY309 is equivalent to BHR 221.

## BHR 224 Human Resource Management 3-3-0

Management of people is a recognized competitive corporate advantage. This course is designed to introduce the current theory, research and practice of human resource management. Specialized topics central to human resource management are introduced. Learning is facilitated through lecture, student presentations, and class discussions.
Prerequisite: BHR 221
BHR 315 Training and Development
3-3-0
The course introduces students to the practice of training and developing employees. Both practical and theoretical aspects are explored. The entire process of training is explained, from the determination of training needs, setting training objectives, designing the training programs, selecting the appropriate training and development techniques, to the evaluation of training results. Both traditional and contemporary training methods are reviewed within this framework.
Prerequisite: BHR 224
BHR 326 Personnel Recruitment and Selection 3-3-0
This course introduces students to the theory and practices of personnel recruitment and selection. In addition to critically reviewing the various recruitment and selection strategies used by organizations, students will be exposed to the technical and theoretical underpinnings of the field (e.g., Validity; Reliability; Criteria Measures). The course will cover selection and recruitment issues as they relate to the Canadian legal framework.
Prerequisites: BHR 224 and BMA140 or PMA260
BHR 328 Occupational Health, Safety, and Wellness 3-3-0
This course is designed to provide students with an introduction to the management of health and safety in the workplace. The course first examines the legislative context, and the hard and soft cost implications of effective health and safety programs. In this context, best practices in terms of occupational hygiene, safety, ergonomics, and workplace wellness are explored. Related topics such as accident investigation, workplace safety and insurance, and occupational disability management are also discussed.
Prerequisite: BHR 221

BMA 140 Statistical Analysis for Business Decisions I 3-3-0
Data summarization: frequency distributions, measures of central tendency and variability; probability; introduction to statistical decision analysis; discrete probability distributions: binomial, Poisson probability distributions; continuous probability distributions: normal, uniform and exponential probability distributions. Prerequisite: MAT 196
This course is not open to students with credit for EMA 140.
BMA 141 Statistical Analysis for Business Decisions II 3-3-0
Sampling methods and sampling distributions; statistical inference; estimation and hypothesis testing; simple linear regression and correlation; multiple linear regression; chi-square tests for independence and goodness-of-fit; introduction to analysis of variance.
Prerequisites: MAT 197 and BMA 140
This course is not open to students with credit for EMA 141.
BMA $142 \quad$ Quantitative Modeling
3-3-0
This is an introductory course dealing with quantitative models used in decisionmaking. Focus of this course would be in developing analytical skills to create precise and structured models for understanding of a complex business problem. Topics to be covered in this course would include, dash-boarding, linear programming, project management, etc. to demonstrate how analytical techniques and statistical models can help enhance decision making by converting data to information and insights for decision making. Excel would be used to impart students how to understand, analyze, summarize and communicate quantitative information in a business setting through spreadsheet models and presentations. Other specialized software for project management (MS Projects) and other modelling would be used where needed.
BMG 100 Understanding Business and Society 3-3-0
With the onset of Globalization, the rapidly improving economic conditions have led to many inequities and issues rising to the forefront. Income inequality, environmental protection and regulations, cultural extinction are just some of the many issues that are impacting all stakeholders. As businesses, governments and workers attempt to balance growth and increases in productivity to improve standards of living with social and economic costs, understanding multiple viewpoints will be critical to ensuring the future of this planet. In this class, you will be drawn into these debates and explore the underlying perspectives related to theories of society and human nature and in their value presuppositions.
BMG 191 Fundamentals of Workplace Preparation and Professional Development

1-0-1
This course introduces students to notions of professional development in order to successfully transition into the workplace. Topics include job search and networking techniques, personal branding and self-awareness, cover letter and resume preparation, interviewing skills as well as workplace etiquette and professionalism in the workplace. This course is mandatory for all co-operative education students, but does not count towards overall degree credit count.
Note: Restricted to Business and Computer Science students only and is not included in the calculation of the cumulative average.
BMG 214 Introduction to Entrepreneurship: New Venture Creation

3-3-0
An introduction to thinking entrepreneurially, thinking how to pursue your goals and opportunities by "creating something new from little". The course is designed to help students pursue their goals through entrepreneurship. Topics include opportunity identification, financing your goal, and venture generation.
BMG 215 Introduction to International Business 3-3-0
This introductory course is designed to expose the student to the international business environment and its current patterns. The major theories of international business transactions are examined including the critical institutions that influence and facilitate international trade. These dynamic factors as well as the pressures of globalization are reviewed in the context of overall corporate policy. The course also briefly develops the important international issues within the framework of the various functional disciplines of management.
Prerequisites: BMG 100 and BMK 211
BMG 221 Business Law
3-3-0
In addition to the fundamentals of basic contract law, students will be introduced to a number of legal issues affecting contemporary business including: competition policy, environmental law, securities legislation, fiduciary responsibilities, property law, professional liability and consumer protection.
BMG 311 Business Policy and Strategic Management
3-3-0
The objective of this course is to introduce students who have completed their B.B.A. core courses to the business policy and strategic management areas. This course attempts, through the uses of cases, readings and lectures, to provide an awareness of overall organizational goals, strategies and environmental
relationships. Where possible, the course utilizes knowledge gained in other areas of the B.B.A. Division.
Prerequisites: All other Required Core courses. BMS 231 may be taken concurrently.
Note: Permission of the Departmental Chair is required for non B.B.A. or non B.A. Business Major students, including exchange students.
BMG 315 International Management
3-3-0
The course is designed to further develop the students' understanding of the international business environment. The course reviews the global competitive forces affecting the internationalization process including the decision to expand abroad and the various modes for foreign market entry i.e. licensing, joint ventures and international alliances. Other topics include various aspects of international control, organizational structure and foreign subsidiary issues. The course is developed around the case study method.
Prerequisite: BMG 215
BMG 323 Interpersonal Skills
3-3-0
Studies consistently show that good "interpersonal skills are critical to managerial success." Although individuals differ in their basic characteristics, personalities, and competencies, better interpersonal skills can be learned. This course uses both conceptual and experiential approaches to focus on key interpersonal skills of communication, conflict management, and leadership, within a team setting.
Prerequisite: BHR 221
BMG 325 Leadership in a Multicultural World
3-3-0
Whether at home or abroad, the business world is becoming increasingly multicultural. Leaders must foster excellence in their diverse workforce by displaying cultural skills. This course begins by taking an in-depth look at main leadership theories while reflecting upon their relevance for a variety of subcultures as well as within different international contexts. Ultimately, we introduce some of the current literature on the transferable skills required for successful global leaders. Accordingly, we seek to develop students' cultural intelligence and prepare them for multicultural leadership applications.
Prerequisites: BMG 100 and BHR 221
BMG 335 Global Value Chain Analysis
3-3-0
The main aim of this course is to develop students' skills and capabilities for analyzing industries across countries. With this course students will learn: (a) How to apply the global value chain analytical framework to analyze the structure and dynamics of different actors in global industries, (b) How to examine the complex network of relationships between firms and institutions that span a wide range of countries, (c) How value chains are controlled and coordinated by different governance structures, (d) How to determine global competitive positions of firms in a given industry and geographic location especially in the emerging markets of Asia, Latin America and Africa. (e) How the participation of emerging markets drives the dynamics of global value chains, (f) How global value chains can be used to create social value ( g ) The different methods and strategies used by countries, regions and other economic stakeholders to maintain or improve their positions in the global economy.
Prerequisite: BMG 215
BMG 345 International Marketing and Export Management
3-3-0
The aim of this course is to provide students with the necessary tools and resources that will enable them to manage the process of exporting and marketing products across countries. The course will examine the broad issues related to exporting and marketing products, countries and services as well as technical concepts and processes that are specific to exporting. At the end of this course students will be able to: (a) Know the necessary steps required to successfully export products and services (b) Appreciate the opportunities, challenges and risks related to exporting (c) Develop an international export and marketing business plan, (e) Identify the escalating costs related to exporting (f) Differentiate the different pricing methods and their implications to profitability and competitiveness in foreign markets, (g) Understand the necessary documentation and institutions involved in the exporting process, (h) To follow emerging digital technologies and exploit them for international competitive advantage.
Prerequisite: BMG 215

## BMG 351 Independent Studies

3-3-0
Proposals for independent studies should be submitted to the faculty member who is to supervise the project. All such studies must be approved by the Division.

## BMG 352 Honours Project

6-3-0
The Honours project will be taken by all students accepted by the Department into the BBA Honours program. The student will select a topic in consultation with a professor in the concentration area. The completed project will be reviewed by three professors, two of which must be in the area, and be subject to an oral defense. Prerequisite: acceptance in the Honours program

BMG 355 International Entrepreneurship
3-3-0
International entrepreneurship is an interdisciplinary field that is based upon theoretical foundations of international business and entrepreneurship. The rapid scale and intensity of globalization and the advancement of digital technologies has created opportunities for entrepreneurs to create new ventures that take advantage of these new technologies to exploit opportunities that emerge across the world. The aim of this course is to provide students with the necessary tools and frameworks for developing new ventures that take advantage of emerging global opportunities for both, for profit entrepreneurs, as well as, non-profit social entrepreneurs.
Prerequisite: BMG 215
BMG 391 Co-operative Placement I 3-0-0
Students will integrate theory and practice through the analysis of an issue, opportunity or problem in some way related to the student's work placement.
Prerequisite: Admission to the Co-operative Education Program and BMG 191
Note: It cannot count as a 300-level Business course but only as a Business elective.
BMG 392 Co-operative Placement II
3-0-0
Students will integrate theory and practice through the analysis of an issue, opportunity or problem in some way related to the student's work placement Prerequisite: BMG 391
Note: It cannot count as a 300-level Business course but only as a Business elective.
BMG 393 Co-operative Placement III 3-0-0
Students will integrate theory and practice through the analysis of an issue, opportunity or problem in some way related to the student's work placement.
Prerequisite: BMG 392
Note: It cannot count as a 300-level Business course but only as a Business elective.
BMK 211 Marketing Management 3-3-0
Introduction to the nature of marketing in our competitive business environment. The main emphasis of the course revolves around a close examination of the "marketing mix" (product, price, place and promotion) in a managerial setting, and interpretation of market forces and opportunities.
BMK 214 Consumer Behavior
3-3-0
To understand how consumers and organizations interact and the processes that take place as part of this exchange. The main emphasis of this class is on how consumers and organizations drive change and the impact of these changes on both a micro and macro level. In addition, a secondary focus examines the process by which consumers and organizations consume/deliver products and services in order to understand the evolution of this process from both a managerial and global perspective.
Prerequisite: BMK 211
BMK 291 Entrepreneurship Practicum I
3-1-2
The main goal of Entrepreneurship Practicum I is to guide teams through the process of how to develop a product/market vision. Student teams will work through exercises aimed at developing a joint core competence description for the team, linking this joint core competence to emerging market opportunities using market research, experiencing a mentoring relationship and developing a product concept based on their product/market vision. This course is to be taken in the same calendar year as BMK392, which will be offered in the winter term.
Prerequisites: $B M G$ 214, BMK 211 and BMK 214
BMK 321 Marketing Research
3-3-0
The course equips students with the key concepts and methods of marketing research, and allows students to understand how to apply those tools to solve reallife business problems. The emphasis in the course is on interpretation of results of marketing research and the use of such information to facilitate strategic marketing decision making.
Prerequisites: BMK 214 and BMA 141
BMK 323 Marketing Communications
3-3-0
This course will examine the theory and techniques applicable to all the major marketing communication functions: advertising, direct marketing, sales promotions, public relations, and personal selling. It will provide a knowledge base that will allow students to research and evaluate a company's marketing and promotional situation and use this information in developing effective communication strategies and programs.
Prerequisite: BMK 214

BMK 332 Marketing Channels 3-3-0
This course views marketing channels as a key strategic component of the marketing mix and builds an understanding of how the firm can best maximize its position with respect to its environment. Key concepts include the types of participants in marketing channels, channel structures, functions and flows, and the various behavioural processes which exist. The course examines how the firm can best maximize its strategy to influence these factors through strategic channel design, building good networks and alliances and, finally, by understanding how to motivate members of the channel.
Prerequisite: BMK 214
BMK 340 Product Strategy and Innovation
3-3-0
This course focuses on the nature of the decisions and actions taken by firms concerning innovation with respect to their products and services. Topics covered will include innovation and R\&D management, managing knowledge and networks, and the new product development process. The course will expose students to the contemporary challenges encountered by innovative firms in developing and launching new products and services, and the strategies which are used by those firms in building and defending brand equity throughout the product life cycle.
Prerequisite: BMK 214
BMK 355 Happiness Marketing
3-3-0
The course discusses practical applications of positive psychology in marketing. Backed up by evidence-based scientific research findings, it aims to help students understand how to be a happier person, a happier consumer, and a better marketer who is able to enhance consumers' well-being. The course introduces cutting-edge marketing tools which help create win-win situations for both consumers and companies alike.
Prerequisite: BMK 214
BMK 381 Marketing Policies
3-3-0
This course integrates the marketing elements in an overall business approach and is designed as a capstone course for graduating students in the marketing and entrepreneurship stream. It focuses on helping students become a strategic marketer, so that they can create, gain support for and execute marketing plans that will build strong and enduring businesses. Special consideration will be given to the playing of a realistic marketing simulation game.
Prerequisite: BMK 214
BMK 392 Entrepreneurship Practicum II
3-1-2
The team from Entrepreneurship Practicum I builds a business plan to take the concept developed in BMK 291 to the next stage. The exercises will include niche market detailing, idea blueprinting, prototype/concept development, concept testing with lead users in the market place, web site development, brand creation and final market tests. The final fussiness plan will be vetted with potential funding organizations/investors. Students are expected to enrol in both BMK 291 and BMK 392 in the same calendar year.
Prerequisite: BMK 291
BMS 231 Operations Management
3-3-0
This course views the management of operations as the design, management and control of business processes. The course introduces the decisions and tradeoffs associated with production of goods and services. Topics include: strategy in operations and supply chain, process design and selection for manufacturing and services, capacity planning, six-sigma quality, lean manufacturing, inventory management, aggregate sales and operations planning, MRP/JIT, and scheduling operations.
Prerequisite: BMA 140

## ILT $100 \quad$ Information Literacy and Critical Thinking (lab) $\quad \mathbf{1 - 0 - 1}$

This one credit lab course is required for all Business Students. The objective of this laboratory course is to introduce students to the skills necessary to effectively complete their research assignments in Business. The course includes the correct use of library resources, including the online catalogue, periodical indexes, and other relevant databases. Other areas of study include the identification of key terms for effective searching, productive use of the internet, and the critical evaluation of retrieved resources. Academic integrity, plagiarism and the correct citation of print and online sources are also taught. The course is practical, and students are given the opportunity for hands-on experience in the library's electronic classroom. This lab course cannot be used as a lecture course credit.
Courses Offered on a Sporadic Basis
BFN 301
Capital Budgeting
3-3-0
This course describes how managers are making long-term investment decisions involving capital assets, such as plant, equipment, machinery, research and development, etc. The main topics include, but are not limited to net present value, internal rate of return, cost of capital, adjusted present value, real options,
mergers and acquisitions, and many others. Special emphasis is placed on tackling complex case studies that require an integrative approach to understanding various corporate finance issues.
Prerequisites: BFN 203 and BFN 210
BFN 335
Topics in Finance I
3-3-0
This is an advanced course in Finance covering special topics including, but not limited to, case studies in corporate finance and investments, complexity and networks, trading strategies, derivatives and hedging, foreign exchange risk management, international capital budgeting, risk management in financial institutions, and any other topic that might reflect current research interest of faculty members. This course should be of particular interest to those students expecting to pursue a career in the investment industry and/or graduate studies in Finance.
Prerequisites: BFN 203 and BFN 210

## BHR 312 Labour Relations <br> 3-3-0

Through an integration of theory and practice, the objective of this course is for students to be able to understand and manage Canadian labour relations. Using a broad interdisciplinary context, this course surveys the major aspects of the unionmanagement relationship with a focus on the following: the establishment of union bargaining rights; the negotiation process; the administration of the collective agreement; and, the role of strikes and lockouts. Other topics include the changing nature of employment and the impact of globalization; minimum conditions of work; and the uniqueness of the public sector. When appropriate, reference will be made to other NAFTA and EU jurisdictions.
Prerequisite: BHR 224 or POL 214
BHR 313 Compensation Management
This course provides students with an understanding of the strategic role of organizational compensation management in today's competitive environment. Students will explore the theory, concepts and methods used to design compensation systems which will contribute to individual and organizational goal achievement. Current and controversial topics in the field of Compensation Management will also be discussed.
Prerequisite: BHR 224
BHR 316 Organizational Conflict and Negotiation
3-3-0
This course introduces students to the structure and processes of conflict and negotiations faced by organizations. Both formal and informal conflict and negotiation practices at the interpersonal, intra group and inter group levels are examined from theoretical and practical perspectives. Particular emphasis is placed on understanding and dealing with conflict from a "conflict management" viewpoint wherein conflict is viewed as having the potential for positive and negative individual/organizational consequences. A significant portion of the course is devoted to the development of conflict management and negotiation skills.
Prerequisite: BHR 221

## BHR 325 Topics in Human Resource Management

3-3-0
The course will present selected topics of current interest at an advanced undergraduate level. Topics covered may vary from year to year. Subject matter may reflect current research interests of faculty members. This course should be of particular interest to those expecting to pursue graduate studies in Human Resource Management and related fields.
Prerequisite: BHR 224
BHR 333 Employment Law
3-3-0
This course is designed to provide students with an understanding of the key statutes, case law, and adjudicative processes in employment law. Whereas students will be introduced to the theory of public law and administrative tribunals, emphasis will be placed on the practical implications of the legal rights and obligations of the workplace parties. An emphasis is placed on the contract of employment and the duty to accommodate. Other topics include the law of the following: human rights; employment standards; occupational health and safety; workplace accident insurance; pay equity; and, employment equity.
Prerequisite: BHR 224
BHR 334 Administering the Collective Agreement
3-3-0
The collective agreement constitutes the negotiated terms and conditions of employment between management and the union. Through an integration of theory and practice, students gain an understanding of the major substantive and procedural issues in administering a collective agreement. An emphasis is placed on dispute resolution from the initial stages of a grievance through to labour arbitration.
Prerequisite: BHR 224 or POL 214

## BMG 322 Change Management

3-3-0
This course explores the process of change within organizations and the management of that process. Topics include the forces that create and inhibit change, decisions about what needs to be changed, and the techniques to implement and sustain change. The role of the change agent will also be examined.
Prerequisite: BHR 221
Note: It is recommended that students take this course in their last 30 credits.
BMG 324 Management of Innovation
3-3-0
The course is designed to introduce students to the innovation process, the management of the innovation process within the organization, and the role and treatment of innovation in the Canadian context.
Prerequisite: BHR 221
BMG 330 Case Competition
3-3-0
Through the use of case studies and discussion in class and in small groups, students will learn to better understand the forces shaping the current business environment and the processes of formulating, and efficiently implementing, a powerful presentation to a panel. Critical analysis of current business practices, integrative decision-making and presentation skills will be developed. Strategy formulation and implementation will be investigated in the context of complex business case competitions.
Prerequisite: Permission of Departmental Chair
BPH 240 Business and Professional Ethics
3-3-0
An examination of ethical issues and responsibilities in the field of business, surveying contemporary and traditional ethical theory and undertaking case study of contemporary issues.
Prerequisite: Students must have completed a minimum of 30 credits at Bishop's University.
Note: This course is cross listed as PHI 240. Students who receive credit for BPH 240 cannot receive credit for PHI 240.
BMK $350 \quad$ Marketing Strategies for Environment Sustainability 3-3-0 This course aims to provide a forum for students to consider innovative approaches to advancing environmental sustainability through the marketing function of organizations. The course is designed to help students build effective strategies for gaining competitive advantage through environmentally sustainable practices which need to be built into the core areas of strategic marketing: product and process development, design of the supply chain, communications and pricing. In addition, the course will help students understand the publics which need to be involved and the macro factors which need to be considered in order for such strategies to be effective.
Prerequisite: BMK 214
BMK 354 Topics in Marketing
3-3-0
The course will present selected topics of current interest at an advanced undergraduate level. Topics covered may vary from year to year and will reflect current research interests of marketing faculty members.
Prerequisite: BMK 214
BMK 362 Sport Marketing
3-3-0
This course will illuminate the theoretical underpinnings and practical applications of marketing strategies to collegiate and professional sport, special events, international sport, broadcasting, facility management, and the sporting goods industry. The course is designed to allow students an opportunity to apply key marketing concepts and strategies within various settings in order to garner a better understanding of both participant and spectator markets.
Prerequisite: BMK 211
BMK 371 Industrial Marketing Strategy
3-3-0
This course is designed to help students understand the complexities and unique challenges faced by marketing managers and top management in their efforts to harmonize the organization's objectives, capabilities, and resources with marketplace needs and opportunities, in the specific case of industrial or business-to-business marketing. Particular emphasis is placed on high technology and dynamic environments which drive specific industries that play key roles in today's society including, but not limited to, biopharmaceuticals, nanotechnology, integrated networks and energy.
Prerequisite: BMK 214
BMS 303 Forecasting Techniques 3-3-0
This course introduces various forecasting techniques used in the business world. Computers are used to apply and interpret the forecasting information.
Prerequisite: BMA 141
BMS 325 Operations Research
3-3-0
This course introduces more concepts and applications of quantitative management techniques not covered in BMS 231. Topics to be covered are: linear programming:
the simplex method; simplex-based sensitivity analysis and duality; integer programming; introduction to dynamic programming; queuing models; and Markov processes. Computer programs are available for students to experiment with specific techniques.
Prerequisite: BMS 231
BMS 332 Supply-Chain Management
3-3-0
The main purpose of the course is to learn how models can be effectively constructed and applied to supply-chain planning problems. Specific topics include: Motivation for using models to analyze supply chain problems with particular attention to developments in Information Technology, Linear and mixed Integer programming models, applications of modelling systems to strategic, tactical, and operational supply chain problems. The perspective is the resourceview of the firm, a new paradigm for strategic planning.
Prerequisite: BMS 231
BUS 200 Business Experiential Learning Project (for-profit) 3-1-10 Students will provide business services to "for-profit" organizations based on the needs that are mutually determined by both the students and the organization. The student or student team will be involved in creating a needs analysis, providing strategic recommendations as well as a critical reflection of the learning that occurred. The course will normally take place over a regular semester or the summer. The course must be supervised and evaluated by a business professor and an organizational representative. Each BUS200 course is unique; therefore, the description of the mandate and its objective must be approved by the Business Division for each experience.
BUS 201 Business Service Learning Project (not-for-profit) $\quad \mathbf{3 - 1} \mathbf{- 1 0}$ Students will provide business services to "not-for-profit" organizations based on the needs that are mutually determined by both the students and the organization. The student or student team will be involved in creating a needs analysis, providing strategic recommendations as well as a critical reflection of the learning that occurred. The course will normally take place over a regular semester or the summer. The course must be supervised and evaluated by a business professor and an organizational representative. Each BUS 201 course is unique; therefore, the description of the mandate and its objective must be approved by the Business Division for each experience.
BUS 202 International Business Experience
3-0-10
The International Business Experience course is an ideal experience for students who want their first study abroad experience or those who are unable to study abroad for a semester. This course is designed to provide students with a truly realworld experience in international business, where they will gain an understanding of the local culture and learn the challenges and opportunities of doing business in that country, firsthand. Students will participate in business visits and discussions with the country's business leaders, while sharing in a different and unforgettable cultural experience.
Note: Countries will be determined in collaboration with professors who are interested in engaging in this type of course as well as availability of resources and contacts in that given country.
BUS 301 Topics in Business I
3-3-0
The course will present selected topics of current interest at an advanced undergraduate level. Topics covered may vary from year to year. Subject matter may reflect current research interests of faculty members or innovative industry topics. Prerequisite: Permission of Departmental Chair
BUS 302 Topics in Business II
3-3-0
The course will present selected topics of current interest at an advanced undergraduate level. Topics covered may vary from year to year. Subject matter may reflect current research interests of faculty members or innovative industry topics.
Prerequisite: Permission of Departmental Chair
BUS 303 Topics in Business III
3-3-0
The course will present selected topics of current interest at an advanced undergraduate level. Topics covered may vary from year to year. Subject matter may reflect current research interests of faculty members or innovative industry topics.
Prerequisite: Permission of Departmental Chair
BUS 304 Topics in Business IV
3-3-0
The course will present selected topics of current interest at an advanced undergraduate level. Topics covered may vary from year to year. Subject matter may reflect current research interests of faculty members or innovative industry topics. Prerequisite: Permission of Departmental Chair

## The School of Education

## Dean

## Corinne Haigh,

B.A. (Mount Allison), M.A., Ph.D. (Western); Full Professor

## Faculty

Avril Aitken,<br>B.Ed., M.Ed. (McGill), Ph.D. (Ottawa); Full Professor, Eva Mary Bures,<br>B.A. (Reed College), M.A., Ph.D. (Concordia); Full Professor Departmental Chair<br>Anthony Di Mascio,<br>B.A., B.Ed., M.A. (Toronto), Ph.D. (Ottawa); Full Professor<br>Trevor Gulliver,<br>B.A.(Trent), M.A.(Leicester), Ph.D. (Ottawa); Full Professor<br>Sunny Man Chu Lau,<br>B.A., M.A., M.Ed. (Hong Kong), Ph.D. (OISE/UT); Associate Professor<br>Jessica Prioletta<br>B.Comm. (McGill), B.Ed. (Concordia), M.A. (McGill), Ph.D. (OISE/UT); Assistant Professor<br>C. Darius Stonebanks,<br>B.A., M.A.Ed. (Concordia), Ph.D. (McGill); Full Professor<br>Lisa Taylor<br>B.A., B.Ed., M.A., Ph.D. (OISE); Full Professor<br>Graduate Studies Co-ordinator<br>Miles Turnbull<br>B.A. (UPEI), M.A. (McMaster), Ph.D. (OISE/UT); Full Professor<br>\section*{Dawn Wiseman}<br>BEng (Concordia), MA (Concordia), PhD (University of Alberta); Associate Professor

## Program Overview

The School of Education offers four programs leading to teacher certification. As a teaching and learning institution, the School of Education works in collaboration with the greater educational community, and is dedicated to developing reflective and exemplary educators. Our graduates are prepared to assume leadership roles in education as a result of theory and practice oriented courses founded on the principles of equity, responsibility, and respect for individual dignity.

## Undergraduate Studies

Students complete an undergraduate program (four years for Quebec students or five years for students from outside Quebec) which includes four options:

- B.Ed. in Teaching and Learning at the Elementary Level
- B.Ed. in Teaching and Learning at the Secondary Level (English, Mathematics, Science and Technology, and Social Sciences profiles)
- B.Ed. in Teaching and Learning of the Creative Arts (Drama, Fine Arts and Music concentrations)
- B.Ed. in Teaching English as a Second Language

Students in both secondary and elementary programs are required to pass the English Exam for Teacher Certification (EETC) approved by the Ministère de l'Éducation, et de l'Enseignement supérieur (MEES) prior to the third practicum. Success on this exam is a requirement for progression through the program. Information about the cost and the procedures for this test are available from the School of Education.

Successful completion of one of these programs results in a recommendation to the Ministère de l'Éducation, et de l'Enseignement supérieur (MEES) for teacher certification in the Province of Quebec. Prior to certification, students will be subject to a check on their judicial background by the Ministère de l'Éducation, et de l'Enseignement supérieur (MEES).

Students who have completed an initial degree in a discipline other than Education either at Bishop's or another university requesting entry into any program may require at least three to four years to complete the course of studies, depending on their academic record.

## Costs

In addition to the costs listed in the Fees section of this Calendar, students are responsible for all travel and accommodation costs related to the required student teaching practica in the Bachelor of Education degree.

## General Regulations

## 1. Academic Standing for programs in Education:

Notwithstanding the University regulations on Academic Standing, the School of Education has its own regulations on Maintenance of Good Standing.

Students in the Bachelor of Education programs must maintain a cumulative average of $70 \%$ or more to remain in good standing. Once students have completed two academic semesters, their averages will be calculated on all courses attempted. Failures will be included in the calculation of this average. If a failed course is repeated, or if a passed course is repeated to achieve a higher mark, the second attempt in either case will be used in the cumulative average.

After two semesters, students with cumulative averages less than $50 \%$ must withdraw from the program; those with cumulative averages between $50 \%$ and $69 \%$ will be permitted to remain in the Education program for one semester on probation in which they must improve their cumulative average to $70 \%$. Students who do not achieve that standard will not be eligible to continue in the Education programs at Bishop's University. Students have the right to appeal this decision to the Review Committee of the School of Education.

Students who fail to maintain good standing in the School of Education will be required to withdraw from the Education program. They must make a choice of an alternate degree program at the university by the end of two consecutive semesters following
their withdrawal. Should they fail to do so or to be accepted into an alternate program, they will not be permitted to register as fulltime students in the next semester.

A student who fails to maintain a cumulative average of $70 \%$ in the semester prior to the final practicum will be compelled to withdraw from the Bachelor of Education program and will not be permitted to register for the final practicum.

## 2. Brevet d'enseignement (Teaching Certificate):

Students who have successfully completed all academic and practicum requirements of their program will be eligible to apply for the Quebec Brevet d'enseignement (Teaching Certificate).
The Ministère de l'Éducation, et de l'Enseignement supérieur (MEES) requires a Declaration concerning a student's judicial record prior to certification.

## 3. Practica (Student Teaching)

Students must successfully complete the requirements of all practicum components in order to complete the B.Ed. with a recommendation to the Ministère de l'Éducation, et de l'Enseignement supérieur (MEES) for the "brevet d'enseignement". The practicum components are evaluated as follows:
a. Introduction to Professional Practice (EDU 128 / EDU 129): numerical grade
b. Practicum II (EDU 228 / EDU 229): (P) pass or (F) fail.
c. The Professional Practice Practicum (EDU 328 / EDU 329): (P) pass or ( F ) fail (Access to the third-year practicum is dependent on successful completion of the English Exam for Teacher Certification.)
d. The Internship (EDU 428 / EDU 429): (P) pass or (F) fail.

Students completing the Introduction to Professional Practice (EDU 128 / EDU 129), Reflective Practicum (EDU 228 / EDU 229), and Professional Practice (EDU 328 / EDU 329) practicum and receiving a failing numerical grade or grade of F , may only be permitted to continue in their School of Education program with the School's approval. In the case of a failure in the Internship (EDU 428 / EDU 429), the student must withdraw from the Bachelor of Education program.

Students removed from any practicum course before its completion as a result of an unsatisfactory report submitted by an associate teacher, school principal or university supervisor risk being withdrawn from the program. Final decisions regarding removal from the program rest with the School of Education. Cases of this kind will be referred to the School's Review Committee for a decision regarding continuation in the program.

Placements are made in schools throughout the province according to criteria established by the School of Education. Student teachers may have additional travel and accommodation costs during a practicum.
Further information and regulations concerning Practice Teaching are contained in the Practice Teaching Handbook.

## 4. Transfer Credits

Students may obtain advanced credits for courses which meet the teaching subject requirements and for courses which have appropriate content and meet program requirements.

## 5. Distinctions

The notation "with Distinction" will appear on the transcript of students who graduate with a cumulative average of $80 \%$ or more. To be awarded a degree with distinction, students must not only achieve first class academic standing in their courses, (cumulative average of $80 \%$ or more) but must also perform at a highly successful level in all practicum components as evaluated by the Dean of the School of Education in consultation with the Director of Practice Teaching and faculty members who courses are directly associated with the student's practicum sessions.

## 6. Review Committee

Students encountering difficulty in practicum placements or in academic courses may be required to meet with the Review Committee of the School of Education for recommendations or decisions regarding their situation.

## B.Ed. in Teaching and Learning at the Elementary Level

The Elementary teacher education program at Bishop's University leads to a Bachelor of Education in Teaching and Learning. This degree is required in order to be eligible for a teaching licence. Students are prepared to teach a broad range of subjects that can be found in the elementary curriculum, including English, Mathematics, Science, History, Geography, Ethics and Religious Culture, and the Creative Arts.

## Overview of Total Program Credits

In order to earn a Bachelor of Education in Teaching and Learning at the Elementary Level, students must complete a 150 -credit program. Students entering with a DEC at a Quebec CEGEP will normally be awarded 30 advanced credits. Mature students and students transferring from another university may be awarded certain advanced credits. Students entering without a completed DEC at a Quebec CEGEP and without any advanced credits are required to earn a total of 30 elective credits in addition to the 120 credits plus labs listed below.

## Foundational Courses ( 45 credits +2 Labs)

EDU 102 Philosophy of Education
EDU 107 Child Development and Elementary Teaching
EDU 122 Using Technology to Support Learning
EDU 138 Foundations of the Teaching Profession (Elementary)
EDU 203 Educational Psychology
EDU 230 Early Childhood Education: Holistic Learning and Early Intervention
EDU 231 Early Childhood Curriculum (Preschool-Kindergarten)
EDU 238 Teaching and Learning at the Elementary Level:
Practice and Reflection
EDU 285 The Reading Process
EDU 305 Social Justice and Anti-Discrimination Education

EDU 313 Teaching Ethics and Religious Culture (Elementary \& Secondary)
EDU 315 Applying the Psychology of Learning and Motivation to the Design of Learning Environments
EDU 348 Professional Seminars Lab (1 credit)
EDU 401 Quebec Education Policy and Law
EDU 407 Individual Differences
ILT 101 Information Literacy Critical Thinking Lab (1 credit)
One of:
EDU 204 Indigenous Education
EDU 205 Education, Colonialism and De-Colonization
EDU 211 Introduction to Young Adult Literature and Texts
"Beyond the Canon"
EDU 212 Mind, Brain, and Education
EDU 218 History of Education
EDU 220 Linguistic Diversity
EDU 303 Sociology of Education
SLP 399 Situated Learning and Praxis

## Methods Courses (30 credits)

EDU 309 Effective Teaching Methods
EDU 321 Methods of Teaching Language Arts I
EDU 331 Methods in Teaching Language Arts II
EDU 334 Methods in the Teaching of Mathematics I
EDU 335 Methods in the Teaching of Creative Arts - Elementary
EDU 406 Student Centered Evaluation
EDU 419 Interdisciplinary Teaching and Integration of Learning at the Elementary Level ( 6 credits)
EDU 433 Methods in the Teaching of Elementary Social Sciences
EDU 434 Methods for Scientific Inquiry and Problem Solving

## Practica (24 credits)

EDU 128 Orientation to Professional Practice
EDU 228 Reflective Practicum - Elementary
EDU 328 Professional Practice ( 6 credits)
EDU 428 Internship (12 credits)

## Disciplinary Courses ( 21 credits)

One of:
ENG 100 Introduction to English Studies
ENG 101 Responding to Literature
ENG 111 Canadian Short Story
ENG 123 Introduction to Indigenous Literatures in Canada
ENG 206 Creative Writing: The Graphic Novel
ENG 210 Children's Literature
ENG 215 Introduction to North American Literatures
EDU 211 Introduction to Young Adult Literature and Texts
"Beyond the Canon"
One of:
MAT 100 Excursions in Modern Mathematics
MAT 101 Further Excursions in Modern Mathematics
One of:
BIO 193 Introduction to Biology
BCH 101 Introduction to Nutrition
CHM 181 The Chemistry of Everyday Life
CHM 185 The Science of Cooking
EXS 127 Introduction to Exercise Physiology

PHY 111 Physics of Everyday Life
PHY 113 Introduction to Astronomy
One of:
ESG 100 Introduction to Environmental Studies
ESG 126 Introduction to Human Geography
ESG 127 Introduction to Physical Geography
ESG 162 Canada: A Nation of Regions
One of:
HIS 104 The West in the World to 1750
HIS 108 A Global History of Indigenous Peoples
HIS 109 New World: The Americas to 1850
One of:
DRA 101 Introduction to Technical Theatre
DRA 110 Introduction to Theatre after 1800
FIS 140 Foundation Studio
FIS 181 Painting I
MUS 110 The Art of Listening I
MUS 111 The Art of Listening II
MUS 130 Rudiments of Music Theory
One of:
CLA 112 Ancient Greek Mythology
CLA 280 Roman Religion
LIB 216 The Divine and Ultimate Concern
PHI 100 On the Way to the Good Life
REL 100 Western Religions
REL 101 Eastern Religions
REL 205 Indigenous Religious Traditions

## Comulsory Language Requirement

EDU 100 English Exam for Teacher Certification (P/F, students who do not pass will not be permitted to register in the third practicum)

## B.Ed. in Teaching and Learning at the Secondary Level

The Secondary teacher education program at Bishop's University leads to a Bachelor of Education in Teaching and Learning. This degree is required in order to be eligible for a teaching license. Students choose from one of the following profiles in a teaching subject area: English, Mathematics, Science and Technology, or Social Sciences.

## Overview of Total Program Credits

In order to earn a Bachelor of Education in Teaching and Learning at the Secondary Level, students must complete a 150 -credit program. Students entering with a DEC at a Quebec CEGEP will normally be awarded 30 advanced credits. Mature students and students transferring from another university may be awarded certain advanced credits. Students entering without a completed DEC at a Quebec CEGEP and without any advanced credits are required to earn a total of 30 elective credits in addition to the 120 credits plus labs listed below.

## B.Ed. in Teaching and Learning at the Secondary Level - English Profile

## Foundational Courses ( $\mathbf{3 0}$ credits +2 Labs)

Required Courses:
EDU 102 Philosophy of Education
EDU 108 Adolescence and Secondary School Teaching
EDU 122 Using Technology to Support Learning
EDU 203 Educational Psychology
EDU 239 Teaching and Learning at the Secondary Level: Practice and Reflection
EDU 305 Social Justice and Anti-Discrimination Education
EDU 315 Applying the Psychology of Learning and Motivation to the Design of Learning Environments
EDU 349 Professional Seminars Lab (1 credit)
EDU 401 Quebec Education Policy and Law
EDU 407 Individual Differences
ILT 101 Information Literacy Critical Thinking Lab (1 credit)
One of:
EDU 204 Indigenous Education
EDU 205 Education, Colonialism and De-Colonization
EDU 211 Introduction to Young Adult Literature and Texts
"Beyond the Canon"
EDU 212 Mind, Brain, and Education
EDU 218 History of Education
EDU 220 Linguistic Diversity
EDU 303 Sociology of Education
SLP 399 Situated Learning and Praxis

## Methods Courses ( $\mathbf{1 8}$ credits)

EDU 339 Effective Teaching and Evaluation Methods I
EDU 341 Methods Teaching English Language Arts at the Secondary Level I
EDU 410 Effective Teaching and Evaluation Methods II
EDU 411 Methods Teaching English Language Arts at the Secondary Level II
EDU 420 Interdisciplinary Teaching and Integration of Learning at the Secondary Level (6 credits)

## Practica ( 24 credits)

EDU 129 Orientation to Professional Practice
EDU 229 Reflective Practicum - Secondary
EDU 329 Professional Practice ( 6 credits)
EDU 429 Internship ( 12 credits)

## Disciplinary Courses (48 credits)

Required Courses:
ENG 100 Introduction to English Studies
ENG 101 Responding to Literature
ENG 112 English Literary Tradition: The Middle Ages and the Renaissance
ENG 113 English Literary Tradition: The Eighteenth Century to the Present
Two of:
ENG 110 English Writers of Quebec
ENG 111 Canadian Short Story
ENG 215 Introduction to North American Literatures
ENG 252 English-Canadian Literature to the First World War

ENG 253 English-Canadian Literature from the First World War to the Present
ENG 275 The Contemporary Canadian Novel
ENG 352 Canadian Literature and Theories of Globalization
One of:
ENG 123 Introduction to Indigenous Literatures in Canada
ENG 228 Introduction to Post-Colonial Literature
ENG 358 Approaches to Indigenous Literary Cultures in Canada ENG 375 Colonial Narratives
One of:
ENG 223 Elizabethan Shakespeare (1590-1603)
ENG 224 Jacobean Shakespeare (1603-1614)
ENG 225 The Stratford "Shakesperience"
DRA 222 Introduction to Shakespeare
One of:
ENG 200 Creative Writing: Poetry
ENG 201 Creative Writing: Prose
ENG 203 Creative Writing: Experiments in Prose
ENG 204 Creative Writing: Experiments in Poetry
ENG 206 Creative Writing: The Graphic Novel
ENG 382 Screenwriting
ELA 201 Advanced Composition
One of:
ENG 210 History of Children's Literature
EDU 211 Introduction to Young Adult Literature and Texts
"Beyond the Canon"
One of:
ENG 234 Contemporary Literary Theory
ENG 236 Popular Culture
ENG 239 Feminist Literary Theory
ENG 291 Film Theory
ENG 353 Boy Meets Girl: Masculinity Scholarship, Feminist Theories, and American Literature
Plus 15 credits in English, of which nine (9) credits must be at the 200 level or above

## Compulsory Language Requirement

EDU 100 English Exam for Teacher Certification (P/F, students who do not pass will not be permitted to register in the third practicum)

## B.Ed. in Teaching and Learning at the Secondary Level - Mathematics Profile

Foundational Courses ( $\mathbf{3 0}$ credits +2 Labs)
Required Courses:
EDU 102 Philosophy of Education
EDU 108 Adolescence and Secondary School Teaching
EDU 122 Using Technology to Support Learning
EDU 203 Educational Psychology
EDU 239 Teaching and Learning at the Secondary Level: Practice and Reflection
EDU 305 Social Justice and Anti-Discrimination Education
EDU 315 Applying the Psychology of Learning and Motivation to the Design of Learning Environments
EDU 349 Professional Seminars Lab (1 credit)
EDU 401 Quebec Education Policy and Law

EDU 407 Individual Differences
ILT 101 Information Literacy Critical Thinking Lab (1 credit)
One of:
EDU 204 Indigenous Education
EDU 205 Education, Colonialism and De-Colonization
EDU 211 Introduction to Young Adult Literature and Texts
"Beyond the Canon"
EDU 212 Mind, Brain, and Education
EDU 218 History of Education
EDU 220 Linguistic Diversity
EDU 303 Sociology of Education
SLP 399 Situated Learning and Praxis

## Methods Courses ( 18 credits)

EDU 339 Effective Teaching and Evaluation Methods I
EDU 346 Methods in Teaching Mathematics, Science and Technology I
EDU 410 Effective Teaching and Evaluation Methods II
EDU 416 Methods in Teaching Mathematics, Science and Technology II
EDU 420 Interdisciplinary Teaching and Integration of Learning at the Secondary Level (6 credits)

## Practica (24 credits)

EDU 129 Orientation to Professional Practice
EDU 229 Reflective Practicum - Secondary
EDU 329 Professional Practice ( 6 credits)
EDU 429 Internship ( 12 credits)

## Disciplinary Courses ( 48 credits +6 prerequisite credits)

Students entering this profile must first complete or have credited the following prerequisites:
MAT 191 Enriched Calculus I
MAT 192 Enriched Calculus II
Required Courses:
MAT 108 Matrix Algebra
MAT 110 Excursions in Modern Mathematics
PHY 101 Statistical Methods in Experimental Sciences
MAT 200 Introduction to Discrete Mathematics
MAT 206 Advanced Calculus I
MAT 207 Advanced Calculus II
MAT 209 Linear Algebra
Plus 12 credits in Mathematics at the 300 level
Plus 15 credits in Mathematics, of which three (3) credits must be at the 200 level or above

## Compulsory Language Requirement

EDU 100 English Exam for Teacher Certification
(P/F, students who do not pass will not be permitted to register in the third practicum)

# B.Ed. in Teaching and Learning at the Secondary Level - Science and Technology Profile 

## Foundational Courses ( $\mathbf{3 0}$ credits +2 Labs)

Required Courses:
EDU 102 Philosophy of Education
EDU 108 Adolescence and Secondary School Teaching
EDU 122 Using Technology to Support Learning
EDU 203 Educational Psychology
EDU 239 Teaching and Learning at the Secondary Level: Practice and Reflection
EDU 305 Social Justice and Anti-Discrimination Education
EDU 315 Applying the Psychology of Learning and Motivation to the Design of Learning Environments
EDU 349 Professional Seminars Lab (1 credit)
EDU 401 Quebec Education Policy and Law
EDU 407 Individual Differences
ILT 101 Information Literacy Critical Thinking Lab (1 credit)
One of:
EDU 204 Indigenous Education
EDU 205 Education, Colonialism and De-Colonization
EDU 211 Introduction to Young Adult Literature and Texts
"Beyond the Canon"
EDU 212 Mind, Brain, and Education
EDU 218 History of Education
EDU 220 Linguistic Diversity
EDU 303 Sociology of Education
SLP 399 Situated Learning and Praxis

## Methods Courses ( $\mathbf{1 8}$ credits)

EDU 339 Effective Teaching and Evaluation Methods I
EDU 346 Methods in Teaching Mathematics, Science and Technology at the Secondary Level I
EDU 410 Effective Teaching and Evaluation Methods II
EDU 416 Methods in Teaching Mathematics, Science and Technology at the Secondary Level II
EDU 420 Interdisciplinary Teaching and Integration of Learning at the Secondary Level (6 credits)

## Practica ( 24 credits)

EDU 129 Orientation to Professional Practice
EDU 229 Reflective Practicum - Secondary
EDU 329 Professional Practice ( 6 credits)
EDU 429 Internship ( 12 credits)

## Disciplinary Courses ( 48 credits + labs +21 prerequisite credits)

Students entering this profile must first complete or have credited the following prerequisites:
BIO 196 Introductory Biology I: Introduction to Cellular and Molecular Biology (with lab BIL 196)
CHM 191 General Chemistry I (with lab CHL 191)
CHM 192 General Chemistry II (with lab CHL 192)
MAT 191 Enriched Calculus I
MAT 192 Enriched Calculus II
PHY 191 Introductory Physics I - Mechanics (with lab PHL 191)

PHY 192 Introductory Physics II - Electricity and Magnetism (with lab PHL 192)
Required Courses:
BIO 201 Cellular \& Molecular Biology
BIO 205 Diversity of Life I (with lab BIL 205)
BIO 233 Human Anatomy
CHM 121 Inorganic Chemistry I
CHM 131 Physical Chemistry I
CHM 141 Analytical Chemistry (with lab CHL 141)
EDU 326 Engineering for Science and Technology Teachers
ESG 100 Introduction to Environmental Studies
ESG 127 Introduction to Physical Geography
PHY 101 Statistical Methods in Experimental Sciences
PHY 206 Waves and Optics (with lab PHL 206)
PHY 207 Thermal and Fluid Physics
PHY 208 Introduction to Mechanics
PHY 214 Astronomy \& Astrophysics
Two of:
BCH 210 General Biochemistry
BIO 206 Diversity of Life II (with lab BIL 206)
BIO 207 Intro to Evolution and Ecology
BIO 208 Genetics (with lab BIL 208)
BIO 320 Programmed Cell Death
BIO 327 Advanced Ecology
BIO 329 Invertebrate Biology (with lab BIL 329)
BIO 331 Freshwater Biology (with lab BIL 331)
BIO 336 Animal Physiology I
BIO 341 Population genetics and evolution
BIO 349 Medical and Forensic Entomology
BIO 354 Insect Biodiversity
BIO 358 Animal Behaviour
BIO 359 Human Genetics
CHM 111 Organic Chemistry I (with lab CHL 111)
CHM 211 Organic Chemistry II (with lab CHL 211)
CHM 225 Inorganic Chemistry II (with lab CHL 225)
CHM 231 Physical Chemistry II (with lab CHL 231)
CS 201 Foundations of Computer Science (with lab CSL 201)
ESG 226 Physical Oceanography
ESG 227 Biogeochemical and Environmental Oceanography
ESG 250 Geomorphology
ESG 251 Soils and Vegetation
ESG 265 The Atmosphere and Weather
ESG 267 Global Environmental Change: a physical perspective
ESG 269 The Earth's Crust
MAT 108 Matrix Algebra
MAT 200 Introduction to Discrete Mathematics
MAT 202 Modern Geometry: Euclidean to Fractal (with lab MAL 202)
MAT 206 Advanced Calculus I
MAT 209 Linear Algebra
PHY 273 Observational Astronomy I

## Compulsory Language Requirement

EDU 100 English Exam for Teacher Certification
(P/F, students who do not pass will not be permitted to register in the third practicum)

## B.Ed. in Teaching and Learning at the Secondary Level - Social Sciences Profile

## Foundational Courses ( $\mathbf{3 0}$ credits +2 Labs)

Required Courses:
EDU 102 Philosophy of Education
EDU 108 Adolescence and Secondary School Teaching
EDU 122 Using Technology to Support Learning
EDU 203 Educational Psychology
EDU 239 Teaching and Learning at the Secondary Level: Practice and Reflection
EDU 305 Social Justice and Anti-Discrimination Education
EDU 315 Applying the Psychology of Learning and Motivation to the Design of Learning Environments
EDU 349 Professional Seminars Lab (1 credit)
EDU 401 Quebec Education Policy and Law
EDU 407 Individual Differences
ILT 101 Information Literacy Critical Thinking Lab (1 credit)
One of:
EDU 204 Indigenous Education
EDU 205 Education, Colonialism and De-Colonization
EDU 211 Introduction to Young Adult Literature and Texts
"Beyond the Canon"
EDU 212 Mind, Brain, and Education
EDU 218 History of Education
EDU 220 Linguistic Diversity
EDU 303 Sociology of Education
SLP 399 Situated Learning and Praxis

## Methods Courses ( $\mathbf{1 8}$ credits

EDU 339 Effective Teaching and Evaluation Methods I
EDU 344 Methods in Teaching Social Sciences at the Secondary Level I
EDU 410 Effective Teaching and Evaluation Methods II
EDU 414 Methods in Teaching Social Sciences at the Secondary Level II
EDU 420 Interdisciplinary Teaching and Integration of Learning at the Secondary Level (6 credits)

## Practica (24 credits)

EDU 129 Orientation to Professional Practice
EDU 229 Reflective Practicum - Secondary
EDU 329 Professional Practice ( 6 credits)
EDU 429 Internship ( 12 credits)

## Disciplinary Courses (48 credits)

Required Courses:
ESG 100 Introduction to Environmental Studies
ESG 126 Introduction to Human Geography
ESG 127 Introduction to Physical Geography

One of:
ESG 224 Human Impact on the Environment
ESG 249 Resource Management
ESG 264 Outdoor Recreation
ESG 266 Environmental Policy
AGR 100 Introduction to Sustainable Agriculture and Food Systems
AGR 204 Community Gardens

## One of:

ESG 226 Physical Oceanography
ESG 227 Biogeochemical and Environmental Oceanography
ESG 250 Geomorphology
ESG 251 Soils and Vegetation
ESG 265 The Atmosphere and Weather
ESG 267 Global Environmental Change: A Physical Perspective
ESG 269 The Earth's Crust
Two of:
HIS 104 The West in the World to 1750
HIS 105 The 20th Century World
HIS 108 A Global History of Indigenous Peoples
HIS 109 New World: The Americas to 1850
Three of:
HIS 207 Canada 1867-1945
HIS 211 Canada Since 1954
HIS 221 Pre-Confederation Canada
HIS 240 History and Heritage
HIS 241 Canada and the World in the 20th Century
HIS 265 Quebec: Political Change and Industrialization 1840-1930
HIS 267 History of Sport in Canada
HIS 269 First Nation/Settler Relations in Canada
HIS 288 Women in 19th and 20th Century Canada
HIS 297 History of Communications
One course in Global History at the 200 level
One course in European or United States History at the 200 level
One course in the History of Asia, Latin America, Middle East, or
North Africa at the 200 level
Two of:
POL 101 Introduction to Comparative Politics
POL 112 Introduction to Canadian Politics
POL 118 Constitutional Law and Canadian Government
LIB 212 In Search of Justice
PHI 104 Hopes and Conflicts of Social and Political Life
One of:
BFN 100 Basic Finance
ECO 103 Principles of Economics: Macroeconomics
Compulsory Language Requirement
EDU 100 English Exam for Teacher Certification
(P/F, students who do not pass will not be permitted to register in the third practicum)

## B.Ed. in Teaching and Learning of the Creative Arts

The Creative Arts teacher education program at Bishop's University leads to a Bachelor of Education in Teaching and Learning. This degree is required in order to be eligible for a teaching license. Students choose from one of the following concentrations in a teaching subject area: Drama, Fine Arts, or Music. Students in this program are prepared to teach at both the Elementary and Secondary school levels.

## Foundational Courses ( 33 credits +2 Labs)

Required Courses:
EDU 102 Philosophy of Education
EDU 108 Adolescence and Secondary School Teaching
EDU 122 Using Technology to Support Learning
EDU 203 Educational Psychology
EDU 230 Early Childhood Education: Holistic Learning and Early Intervention
EDU 305 Social Justice and Anti-Discrimination Education
EDU 315 Applying the Psychology of Learning and Motivation to the Design of Learning Environments
EDU 349 Professional Seminars Lab (1 credit)
EDU 401 Quebec Education Policy and Law
EDU 407 Individual Differences
ILT 101 Information Literacy Critical Thinking Lab (1 credit)
One of:
EDU 238 Teaching and Learning at the Elementary Level: Practice and Reflection
EDU 239 Teaching and Learning at the Secondary Level: Practice and Reflection
One of:
EDU 204 Indigenous Education
EDU 205 Education, Colonialism and De-Colonization
EDU 211 Introduction to Young Adult Literature and Texts
"Beyond the Canon"
EDU 212 Mind, Brain, and Education
EDU 218 History of Education
EDU 220 Linguistic Diversity
EDU 303 Sociology of Education
SLP 399 Situated Learning and Praxis

## Methods Courses ( 21 credits)

EDU 335 Methods in the Teaching of Creative Arts (Elementary)
EDU 339 Effective Teaching and Evaluation Methods I
EDU 406 Student Centered Evaluation (Elementary)
EDU 410 Effective Teaching and Evaluation Methods II
EDU 415 Methods in Teaching Creative Arts (Secondary)
One of:
EDU 419 Interdisciplinary Teaching and Integration of Learning at the Elementary Level ( 6 credits)
EDU 420 Interdisciplinary Teaching and Integration of Learning at the Secondary Level (6 credits)

## Practica (24 credits)

EDU 129 Orientation to Professional Practice
EDU 228 Practicum II (Elementary) OR EDU 229 Practicum II (Secondary)
EDU 329 Professional Practice (6 credits)
EDU 429 Internship (12 credits)

## Disciplinary Courses (42 credits)

## Option 1: Drama Concentration

Required Courses:
DRA 101 Introduction to Technical Theatre
DRA 102 Introduction to Theatre Before 1800
DRA 110 Introduction to Theatre After 1800
DRA 131 Acting I
DRA 201 Contemporary Canadian Drama
DRA 222 Introduction to Shakespeare
Four of:
DRA 132 Acting II
DRA 233 Acting III
DRA 234 Acting IV
DRA 246 Introduction to Directing
DRA 250 Introduction to Technical Theatre Stagecraft
DRA 251 Lighting Design
DRA 331 Production I: Performance
DRA 332 Production II: Performance
DRA 341 Production I: Technical Production
DRA 342 Production II: Technical Production
Four of:
DRA 211 Ritual and Theatre
DRA 212 Theatre and the State
DRA 230 Women in Performance
DRA 300 Contemporary Theatre Practice
DRA 301 Contemporary Dramatic Theory
DRA 302 Classical European Drama
DRA 315 Medieval Drama
DRA 322 Topics in Shakespeare
Option 2: Fine Arts Concentration
Required Courses:
FIH 100 The Art of Viewing
FIH 102 Survey of Western Art II
FIH 220 Twentieth Century Art to the 1960s
FIH 221 Art Since the 1960s
FIN 301 Art Education: Theory and Practice
Nine courses from at least three of the groups below:

## Group 1

FIS 160 Drawing I
FIS 260 Drawing II
FIS 261 Drawing III
FIS 300 Drawing IV

## Group 2

FIS 181 Painting I
FIS 281 Painting II
FIS 382 Painting III
FIS 382 Painting IV

## Group 3

FIS 170 Sculpture I
FIS 271 Sculpture II
FIS 372 Sculpture III
FIS 373 Sculpture IV

## Group 4

FIS 140 Foundation Studio
FIS 175 Introduction to Fibre Art
FIS 180 Colour: Theory and Practice
FIS 182 Photo I
FIS 190 Printmaking I
FIS 275 Fibre Art II
FIS 285 Landscape Drawing and Painting II
FIS 291 Printmaking II
FIS 296 Photo II
FIS 302 Photo III
FIS 384 Photo IV
FIS 385 Printmaking III

## Option 3: Music Concentration

Required Courses:
MUS 130 Materials of Music I
MUS 135 Materials of Music II
MUS 120 Musicianship I ( 2 credits)
MUS 125 Musicianship II (2 credits)
MUS 220 Musicianship III (2 credits)
MUS 230 Materials of Music III
One of:
MUS 244 Music of the Early Twentieth Century
MUS 245 Music since 1945
MUS 246 Classical Music
MUS 247 Romantic Music
MUS 251 Western Art Music to 1750
Two of:
MUS 101 Rock 101
MUS 102 Rock/Pop Music 1980 to Present
MUS 103 Classic Jazz
MUS 104 Modern Jazz
MUS 106 Song
MUS 107 Opera
MUS 112 Music for Orchestra
MUS 114 Recital Music
MUS 115 Film Music I
MUS 116 Film Music II
MUS 140 ABCs of Classical Music
MUS 200 Major Composers I
MUS 203 The Blues
MUS 204 The Be-Bop Revolution
MUS 205 Canadian Music
MUS 206 Russian Music
PSY 292 Psychology of Music
One of:
MUS 332 Advanced Harmony
MUS 333 Compositional Strategies in Formal Design
MUS 335 Compositional Strategies in Counterpoint
MUS 337 Orchestration

12 credits from and including the following:
MUS 172 Principal Instrument I (2 credits)
MUS 173 Principal Instrument II (2 credits)
MUS 272 Principal Instrument III (2 credits)
MUS 273 Principal Instrument IV (2 credits)
Plus 4 credits of Individual Practical Study
3 credits from the following:
MUS 310 Independent Studies I
MUS 311 Independent Studies II
MUS 375 Instrumental Techniques ( 2 credit course, students completing MUS 375 must also complete 1 additional elective credit)

## Compulsory Language Requirement

EDU 100 English Exam for Teacher Certification
(P/F, students who do not pass will not be permitted to register in the third practicum)

## B.Ed. in Teaching English as a Second Language

The Teaching English as a Second Language (TESL) program at Bishop's University leads to a Bachelor of Education in Teaching English as a Second Language. This degree is required in order to be eligible for a teaching license. Students in this program are prepared to teach at both the Elementary and Secondary school levels.

## Foundational Courses ( $\mathbf{3 3}$ credits +2 Labs)

Required Courses:
EDU 102 Philosophy of Education
EDU 108 Adolescence and Secondary School Teaching
EDU 122 Using Technology to Support Learning
EDU 203 Educational Psychology
EDU 230 Early Childhood Education: Holistic Learning and Early Intervention
EDU 305 Social Justice and Anti-Discrimination Education
EDU 315 Applying the Psychology of Learning and Motivation to the Design of Learning Environments
EDU 349 Professional Seminars Lab (1 credit)
EDU 401 Quebec Education Policy and Law
EDU 407 Individual Differences
ILT 101 Information Literacy Critical Thinking Lab (1 credit)
One of:
EDU 238 Teaching and Learning at the Elementary Level: Practice and Reflection
EDU 239 Teaching and Learning at the Secondary Level: Practice and Reflection

## One of:

EDU 204 Indigenous Education
EDU 205 Education, Colonialism and De-Colonization
EDU 211 Introduction to Young Adult Literature and Texts "Beyond the Canon"
EDU 212 Mind, Brain, and Education
EDU 218 History of Education
EDU 303 Sociology of Education
SLP 399 Situated Learning and Praxis

## Methods Courses ( 21 credits)

EDU 308 Methods in Teaching English Grammar
EDU 339 Effective Teaching and Evaluation Methods I
EDU 406 Student Centered Evaluation (Elementary)
EDU 410 Effective Teaching and Evaluation Methods II
EDU 418 Methods in Teaching Second Languages
One of:
EDU 419 Interdisciplinary Teaching and Integration of Learning at the Elementary Level (6 credits)
EDU 420 Interdisciplinary Teaching and Integration of Learning at the Secondary Level (6 credits)

## Practica ( 24 credits)

EDU 129 Orientation to Professional Practice
EDU 228 Practicum II (Elementary) OR EDU 229 Practicum II (Secondary)
EDU 329 Professional Practice ( 6 credits)
EDU 429 Internship ( 12 credits)

## Disciplinary Courses ( 42 credits)

Required Courses:
EDU 105 Introduction to Linguistics for Language Teaching EDU 206 Perspectives on SLA
EDU 207 Teaching Young Second Language Learners
EDU 208 Drama Techniques for Lang. Teaching
EDU 209 Oral Communication
EDU 210 Critical Pedagogical Orientation to Second Language Teaching
EDU 307 Literature and Language Teaching
ENG 116 Effective Writing
ENG 210 Children's Literature
Two of:
ENG 104 Approaches to Short Fiction
ENG 108 The American Short Story
ENG 110 English Writers of Quebec
ENG 111 Canadian Short Story
ENG 113 English Literary Tradition
ENG 118 Literature of the Environment
ENG 123 Into. to Indigenous Literatures in Canada
ENG 124 Introduction to the Graphic Novel
One of:
ENG 200 Creative Writing: Poetry
ENG 201 Creative Writing: Prose
ENG 203 Creative Writing: Experiments in Prose
ENG 204 Creative Writing: Experiments in Poetry
One of:
ENG 212 Crime Stories: The Great Detectives
ENG 215 Introduction to N.A. Literatures
ENG 223 Elizabethan Shakespeare
ENG 225 The Stratford "Shakesperience"
ENG 228 Introduction to Post-Colonial Literature
ENG 238 Confessions, Memoirs and Life Writing
ENG 234 Contemporary Literary Theory
ENG 239 Feminist Literary Theory
ENG 241 War and Literature
ENG 250 The Modern British Novel: Experiments in Fictional Form

ENG 251 Keep Calm and Carry On: The British Dystopian Novel
ENG 252 English-Canadian Literature to the First World War
ENG 253 English-Canadian Literature from the First World War to the Present
ENG 254 Tooth and Claw: Animal Nature in Victorian Culture
ENG 255 Legal Bodies: Crime \& Culture in Victorian England
ENG 256 The Early Twentieth-Century American Novel
ENG 257 Contemporary American Novel
ENG 275 Contemporary Canadian Novel
One of:
ENG 102 Approaches to Media Studies
ENG 236 Popular Culture
ENG 278 Science Fiction in Literature and Film
ENG 280 Film History after 1939
ENG 282 Film Adaptation
ENG 283 The Documentary Film
ENG 284 Film Noir
ENG 287 Image and Communication: Visual Culture and Critique
ENG 288 Crime Pays: The Gangster Film Genre
ENG 293 Four Filmmakers
ENG 294 Film Comedy
ENG 295 Jane Austen and Film
ENG 297 From Aliens to Zombies

## Compulsory Language Requirement

EDU 100 English Exam for Teacher Certification
(P/F, students who do not pass will not be permitted to register in the third practicum)

## Minor in Teaching of English Second Language ( 24 credits)

This Minor provides an opportunity for students to study how second languages are learned and taught, with an introduction to linguistics, second language acquisition research, and second language pedagogy. The Minor in the Teaching of English Second Language requires the completion of 24 credits. This Minor does not lead to teaching certification. This Minor must be combined with a full or part time degree program.

This includes 12 credits from the courses below:
EDU 105 - Introduction to Linguistics for Language Teaching
EDU 206 - Perspectives on Second Language Acquisition
EDU 207 - Teaching the Second Language Learner
EDU 210 - Critical Pedagogical Orientation to Second Language Teaching
Plus 12 credits from the following list:
EDU 208 - Drama Techniques for Language Teaching
EDU 209 - Oral Communication
EDU 220 - Lingustic Diversity
EDU 307 - Literature and Language Teaching
EDU 308 - Teaching English Grammar
EDU 324 - Teaching English to Adults
EDU 325 - Selected Topics in Teaching ESL
Students in Education interested in completing this Minor should contact the School of Education at soe@ubishops.ca for more information.

## Minor in Teaching of French as a Second Language / Mineure en enseignement du français, langue seconde ( 24 credits) <br> MINTFS

This Minor, a collaboration between the School of Education and Études françaises et québécoises, provides an opportunity for students to observe and study how second languages are learned and taught, with an introduction to linguistics, second language acquisition research, second language pedagogy and French grammar, including the nouvelle grammaire and the nouvelle orthographe. The Minor in the Teaching of French as a Second Language requires the completion of 24 credits. In order to obtain this Minor, the student must have completed at least two courses at French Level 4 or higher (advanced level); for more information, please consult the Études françaises et québécoises section in the Academic calendar.

Cette mineure de 24 crédits, offerte en collaboration avec le School of Education, donne l'occasion aux étudiants d'observer et d'analyser comment les langues secondes sont apprises et enseignées. Les étudiants y reçoivent une formation de base en linguistique, en recherches sur l'acquisition d'une langue seconde, en pédagogie de la langue seconde, et en grammaire française, incluant la nouvelle grammaire et la nouvelle orthographe. Pour obtenir cette mineure, l'étudiant doit avoir complété un minimum de deux cours au niveau 4 ou supérieur en français (niveau avancé; pour plus d'informations, consulter la section Études françaises et québécoises de l'Annuaire universitaire.

## Mandatory credits (3)

EDU 213 Didactique du français, langue seconde
9 credits from the courses below:
EDU 105 Introduction to Linguistics for Language Teaching
EDU 206 Perspectives on Second Language Acquisition
EDU 207 Teaching Young Second Language Learner
EDU 210 Critical Pedagogical Orientation to Second Language Teaching
EDU 220 Linguistic Diversity
Plus 12 credits from the following list:
FRE 140 Grammatical Review (French V)
FRE 141 Grammatical Review (French VI)
Niveau 4 - Level 4
FRA 227 Le génie de la langue: Stylistique comparée du français et de l'anglais
FRA 309 Assistanat en enseignement du français langue seconde FRA 310 Tutorat au Centre d'aide en français
Or any other Niveau 4 - Level 4 FRA course
Students interested in completing this Minor should contact the School of Education at soe@ubishops.ca for more information. Departmental prerequisites apply. This Minor does not lead to teaching certification. This Minor must be combined with a full or part time degree program

Les étudiants intéressés par cette mineure doivent contacter le School of Education à l'adresse soe@ubishops.ca. Les prérequis départementaux s'appliquent.

## List of Courses

EDU 102 Philosophy of Education 3-3-0
The course will focus upon philososphical ideas as they are applied to educational problems. Students will undertake a critical inquiry into several philosophical schools of thought with the view of developing a personal philosophy of education. Each school of thought will be examined in the light of its essential elements and basic principles as well as how each has influenced educational theory and practice. Questions of ethics are central to the course.
EDU 105 Introduction to Linguistics for Language Teaching 3-3-0 This course provides the theoretical background in linguistics for teachers of second languages. Topics covered include the major themes in linguistics (phonetics, phonology, morphology, syntax and semantics) that inform the teaching and learning of languages.
EDU 107 Child Development and Elementary Teaching 3-3-0 This course is designed to provide elementary pre-service teachers with an introduction to theories about how children develop, learn and grow up. This course will review current theory about child development and cover various domains of development (social, emotional, cognitive, physical) from infancy to middle childhood. The implications of children's development in relation to elementary teaching and learning are a central focus of this course.
Anti-requisites: PSY 235 and PSY 290
EDU 108 Adolescence and Secondary School Teaching 3-3-0 This course is designed to provide secondary pre-service teachers with an introduction to theories about how adolescents develop, learn and grow up. This course will review current theory about developmental issues in adolescence and cover various domains of development (social, emotional, cognitive, physical) from age 13 to young adulthood. The implications of adolescents' development in relation to secondary teaching and learning are a central focus of this course. Anti-requisites: PSY 235 and PSY 290
EDU 122 Using Technology to Support Learning
3-3-0
This course will focus on using technology to support teaching and learning processes. By studying the foundations of educational technology, pre-service teachers will develop an understanding of the role of technologies can play to improve education. They will explore the role of the educator in technologyfacilitated learning environments. They will build skills in designing technologybased learning environments to support meaningful learning.
ILT 101 Information Literacy and Critical Thinking Lab 1-0-1 The objective of this laboratory course is to introduce students to the skills necessary to effectively complete their research assignments, in Education. The course includes the correct use of library resources, including the online catalogue, periodical indexes and other relevant databases. Other areas of study include the identification of key terms for effective searching, productive use of the internet and the critical evaluation of retrieved resources. Academic integrity, plagiarism and the correct citation of print and online sources are also taught. The course is practical, and students are given the opportunity for hands-on experience in the library's electronic classroom. Taught in conjunction with EDU 128 / EDU 129, "Orientation to Professional Practice", students retrieve the resources necessary to complete their assignments for the course. ILT 101 is a required core course.

## EDU 128/129 Orientation to Professional Practice

3-3-0
Students will focus on the human and professional elements of teaching in order to identify those personal traits that are characteristic of effective teachers. This course introduces students to the process of reflective practice and to the professional knowledge base that inspires it. The above course components combined with field-based experiences and classroom presentations will help students make informed judgments as to their suitability for the teaching profession.
Co-requisite: ILT 101 - Information Literacy Critical Thinking Lab
EDU 138 Foundations of the Teaching Profession (Elementary) 3-3-0 In this course students will explore and make use of current research on the teaching, learning and evaluation processes. Students will also learn how to apply education policy and curriculum program documents in their planning and teaching. Students will continue the identification process with the teaching profession begun in their first field placement.
EDU 139 Foundations of the Teaching Profession (Secondary) 3-3-0 In this course students will explore and make use of current research on the teaching, learning and evaluation processes. Students will also learn how to apply education policy and curriculum program documents in their planning and teaching. Students will continue the identification process with the teaching profession begun in their first field placement.

EDU 203
Educational Psychology
3-3-0
This course introduces pre-service teachers specializing in elementary and secondary education to the area of Educational Psychology. Educational Psychology prepares the teacher to understand principles of learning/cognition, human development, and motivation and the application of these theories to classroom learning, problem-solving, critical thinking and teaching, design of curricula, learners' with special needs, classroom management, and assessment and evaluation.
Prerequisites: EDU 130 and EDU 128 or EDU 129 are prerequisites or corequisites if student is also enrolled in EDU 227, EDU 228 or EDU 229
EDU 204 Indigenous Education 3-3-0
This course provides opportunities for education candidates to develop a more complex understanding of the social, economic and political contexts that bear on the conditions of First Nations communities in which they may teach. It is structured around engagements with Indigenous peoples, histories, and knowledges, and involves university and field-based experiences. Students will examine exemplary cases and approaches to curriculum planning, extra-curricular programming, pedagogy and relationship-building with First Nations, Inuit and Metis families and communities.
EDU 205 Education, Colonialism and De-Colonization 3-3-0 In this course, we examine the implication of education in ongoing histories of colonialism in Canada. A particular focus will be on the history of residential schools, their continuing legacy as well as what it might look like for educators to take ownership of this history and build conditions for reconciliation between settler Canadians and First Nations, Inuit and Metis. This will involve studying Aboriginal perspectives, goals and approaches to teaching and learning. We will engage with examples of pedagogies aimed at de- colonization for Indigenous and non-Indigenous peoples in Canada. The course aims for students to develop an intersectional analysis and approach to pedagogy.
Prerequisites: One 100-level course in Education, Sociology, or History
EDU 206 Perspectives on Second Language Acquisition 3-3-0
Through this course, students will examine the implications of theories of language acquisition for the teaching and learning of second languages at the elementary, secondary and adult levels. The relevance of past and current research in both first and second language acquisition will be a major topic of discussion.
EDU 207 Teaching Young Second Language Learners 3-3-0
With a focus on young learners and their needs, this course will introduce students to a learner-centered approach to the teaching of a second language. Topics covered include early literacy development and instruction, elementary curriculum, social and cognitive dimensions of learning as well as issues related to bilingualism. Students will explore the roles of a second language teacher in a variety of teaching situations and classroom environments specific to young learners. Should be taken in the first year of study.
EDU 208 Drama Techniques for Language Teaching
3-3-0
This course is an introduction to the creative process of drama (using role playing, improvisation and theatre games to explore language learning). The focus is on developing one's own creative potential using improvisation, theatre games, movement, voice and play making. Through individual and group work, participants will learn strategies for using drama in the classroom.
EDU 209 Oral Communication
3-3-0
This course will address issues related to the development of listening and speaking skills in second language learners, including those related to pronunciation. In addition, it will focus on varieties of oral communication in different contexts and for different levels and ages of learners.
Pre- or Co-Requisite: EDU 105 or MLA 101
EDU 210 Critical Pedagogical Orientation to Second Language Teaching

3-3-0
The purpose of this course is to inquire into the socio-political dimension of ESL and other second language teaching and learning. We will examine and challenge the traditional notions of literacy and literacy practices pertaining to second language education. Together we will explore some critical approaches to teaching second languages as well as different classroom strategies and practices that bear a transformative pedagogical orientation. This course should not be taken in the first year of your program.

## EDU 211 Introduction to Young Adult Literature and Texts "Beyond the Canon"

3-3-0
This course is intended for future elementary teachers who wish to better investigate how to evaluate, select and share young adult literature "beyond the canon" through a critical intercultural perspective. In the course, students will examine different genres of literature such as poetry, short stories, plays and novels. Furthermore, students will reconsider the traditional meaning of "text" and examine contemporary texts such as film, television, music lyrics and videos and how and if they play a role in classrooms.
EDU 212 Mind, Brain and Education
3-3-0
An individual's brain and cognitive development are shaped by his or her learning experiences and environment - in other words, education changes the brain. This course will review recent research from neuroscience and psychology to discuss how such studies can be useful to education, and how insights from education can in turn inform these disciplines. It will investigate the different histories, philosophies, and epistemological lenses through which common problems in neuroscience, psychology, and education are approached. Students will gain awareness and understanding of the complexity of issues and theories within the discipline of neuroeducation and the methods and models associated with it, and will identify questions from education that remain unanswered in the context of educational neuroscience and propose methods of addressing these questions. Topics such as bilingualism, reading and language, literacy, numeracy and arithmetic, cognitive control, emotion, and creativity will be addressed.
EDU 213 Didactique du français langue seconde 3-3-0
Through this course, students will examine the issues related to the development of competency in French as a second language and understand the contexts in which French is taught as a second language in Canada. Attention will be paid to particular pedagogical approaches related to the teaching of French as a second language. This course will be offered in French.

## EDU 218 History of Education

3-3-0
This course will examine education and schooling through a historical perspective. Students will analyze the social, economic, and political trends and themes that have both challenged educational policymakers and impacted the development of modern education systems. Students will engage in historical thinking as a way to contextualize education today.
EDU 220 Linguistic Diversity
3-3-0
This course focuses on the teaching of students with diverse language abilities. It examines theoretical perspectives on first and second language acquisition and the relevance of these perspectives to educational practices. Discussion will include examination of the relationship between linguistic diversity and identity construction, the importance of first language maintenance and additive bilingualism. Students will discuss strategies for supporting and integrating linguistically diverse students into content area classes.

## EDU 230 Early Childhood Education:

Holistic Learning and Early Intervention
3-3-0
This course will focus on overall health and wellness of young children. Students will consider what it means for children to be holistically healthy. Topics to be explored include how to support children's sense of belonging while forming strong connections with others, their mental-health and well-being, as well as their self-regulation skills. Current issues related to trauma-informed care, early years interventions and the value of interprofessional collaboration, in partnership with families, will be investigated.

## EDU 231 Early Childhood Curriculum

 (Preschool - Kindergarten)3-3-0
Preschool, Kindergarten and Cycle One mark a significant period in young learners where ongoing development is nurtured so that children can achieve their full potential. This course will offer a thorough introduction to theoretical and applied aspects of early childhood education where students will be expected to reflect critically on their teaching philosophy and practice with the youngest learners in our schools. With particular attention given to the Quebec Education Program, they will explore appropriate and stimulating learning environments, planning and implementation of learning centers, play based curriculum and instruction, teaching the "whole" child, the educational and developmental needs of young children and other current issues in early childhood education.
Pre-requisite: EDU 130
EDU 232 Elementary Curriculum (Cycle 1-3)
3-3-0
Students participating in this introductory course will explore the principles and practices which are germane to organizing and operating the classroom for learners in the Cycle One to Three classrooms. With particular attention given to the Quebec Education Program, they will examine representative primary school curricula emphasizing active and experiential learning, critical thinking,
the physical environment, and a variety of current and age appropriate teaching and learning strategies. Authentic operational components, including criteria for creating and evaluating children's learning, will also be addressed to develop best professional practices.
Pre-requisite: EDU 130
EDU 238 Teaching and Learning at the Elementary Level: Practice and Reflection

3-3-0
In this course students will learn to apply current research on the Elementary teaching, learning and evaluation processes to designs for learning. Students will learn about Quebec curriculum-related documents; they will deepen their understanding of the application of education policy and curriculum program documents to their planning process. Students will document the development of their professional identity.
Pre-requisite: EDU 130 Foundations of the Teaching Profession
EDU 239 Teaching and Learning at the Secondary Level: Practice and Reflection

3-3-0
In this course students will learn to apply current research on the Secondary teaching, learning and evaluation processes to designs for learning. Students will learn about Quebec curriculum-related documents; they will deepen their understanding of the application of education policy and curriculum program documents to their planning process. Students will document the development of their professional identity. It is a co-requisite for the second year practicum course taken by all Secondary candidates in their second year.
Pre-requisite: EDU 130 Foundations of the Teaching Profession
EDU 275 Managing Classrooms and Student Behaviours 3-3-0
This course will deal with the general principles of classroom and behaviour management. Its four goals are the following: to provide future teachers with the knowledge to manage their classrooms effectively; to present different models and theories of classroom management; to identify and discuss specific behaviour problems; to examine how schools attempt to work effectively with difficult students and their parents.
EDU 285 The Reading Process
3-3-0
The lifelong acquisition of reading skills is complex. Teachers need to understand the integrated language system: oral language (listening and speaking), reading and writing. Designed for teachers, the aim of this course is to learn about the psychological processes involved when we read. Theoretical approaches to language acquisition will be examined. Teaching strategies using multi-modal approaches supporting the development of reading skills will be introduced for various age and educational levels. Issues such as bilingualism, English language learning and cultural differences will be addressed. Reading disabilities affect many learners and impact all subject areas; consequently, knowing how language is acquired will enable teachers to understand the nature of reading disabilities and to learn strategies to meet the needs of all students in an integrated classroom setting.
EDU 303 / SOC 299 Sociology of Education
3-3-0
The purpose of this course is to examine education in Canada from a critical sociological perspective. Education is a major institution in most societies and is a vital part of our social existence. The sociology of education, a subfield of sociology, focuses on the institution of education and the structures, processes and interaction patterns within it. We will look at the educational system as a whole, integrated and dynamic entity. To do so, reference will be made to a variety of sociological studies, but the main perspective is critical.
EDU 305 Social Justice and Anti-Discrimination Education
3-3-0
This course is designed to engage teacher candidates in a critical examination of key concepts and issues in the field of education that help us approach questions of social inequality, identity, difference, pluralism and social justice from a critical historical, philosophical and sociological perspective. Drawing from a range of theoretical and practical as well as multimedia resources, we will try to develop a critical awareness as reflective practitioners in relation to the social forces that influence the teaching-learning process in diverse societies and a globalizing world.
Pre-requisite: EDU 238 or EDU 239 or permission of instructor
EDU 307 Literature and Language Teaching
3-3-0
This course will explore the use of literature as a basis for the teaching of ESL. Theories regarding the connection between literature and language learning will be introduced, and students will be involved in the construction of classroom learning situations based on poetry, short stories and novels.
Pre-requisites: 100 level English course or ENG 210 or EDU 211

EDU 308 Teaching English Grammar
3-3-0
This course is intended to achieve two aims: to provide students with an overview of grammatical issues for learners of English as a second language, and to address the strategies and methods that ESL teachers might adopt to integrate the teaching of grammar into their classrooms. Practice in the effective design of instruction and materials for the teaching of grammar will be a significant component of the course.
EDU 309 Effective Teaching Methods
3-3-0
This course will focus on the curriculum process and will examine how teachers and learners participate in the various dimensions of that process. Students will use their prior knowledge and understanding of effective learning in order to generate curricular frameworks to guide their classroom practice. They will design strategies to make student learning more meaningful. The primary goals of this course are to (1) understand the roles of the schools, curricula, teachers and learners in the 21 st century, (2) understand several different modes of teaching and how each influences the learners' way of coming to know and (3) understand how to construct and effectively use unit level and lesson level plans.
Prerequisites: EDU 129 and EDU 229 or EDU 128 and EDU 228. Third-year standing or permission of the school.

## EDU 313 Teaching Ethics and Religious Culture (Elementary \& Secondary)

3-3-0
The purpose of this course is to introduce pre-service teachers to the Ethics and Religious Culture program, first implemented in Quebec schools as of 2008. Principal topics covered will include the familiarization with the manner in which religious and non-religious worldviews can be understood and respected through cultural phenomena and the manner in which ethics can be explored to meet the criteria of "recognizing others" and the "pursuit of the common good". With respect to the progression of learning from elementary to secondary, particular attention will be given to making the theoretical dialogue within this course applicable to the students' teaching context. The pre-service teacher will also be expected to deliberate the professional responsibilities that arise from the shift of confessional schooling to structures that are entirely non-religious.
EDU 315 Applying the Psychology of Learning and Motivation
3-3-0
This course will assist pre-service teachers to apply the psychology of learning and motivation to the design of learning environments. In this course pre-service teachers will deepen their comprehension of learning environments that foster learning and motivation. They will explore different approaches to organizing schools and classrooms based on supporting student's engagement within an inclusive learning community. They will study motivational theories and how to improve student motivation in relation to the design of learning and evaluation situations.
Prerequisite: EDU 203
EDU $321 \quad \begin{aligned} & \text { Methods in the Teaching of Language Arts I } \\ & \text { (Elementary) }\end{aligned}$
3-3-0
This course introduces pre-service teachers to literacy-related concepts, competencies and instructional and assessment approaches, the role of Language Arts in helping learners develop a critical understanding of the world, trends in literacies research, and related Quebec program documents. Pre-service teachers will begin to plan and design learning that fosters the literacy development of young learners in kindergarten and cycle one.

## EDU 324 Teaching English to Adults

3-3-0
This course will explore the particular needs and challenges of adult learners of English as a Second Language. Students will be connected to local classrooms of adult learners to observe their language learning experience and to consider ways to construct appropriate learning situations for them.
EDU 325 Selected Topics in Teaching ESL
3-3-0
This course is designed to provide opportunities for students to explore recent and/ or controversial topics related to second language teaching and learning. Specific topics will vary from year to year so that current issues may be addressed.

## EDU 326 Engineering for Science and Technology Teachers $\quad$ 3-0-0

The Quebec Education Program has a strong engineering component that appears in the technological world. It focuses on engineering science, skills, technologies, and methods, and considers applied science in areas such as biotechnology, genetics, etc. This course will consider how engineering and science are related and what applied science actually means. Students will explore engineering in a hands-on manner via problem-solving and design. Critical consideration of implementing engineering in secondary education will be included.

EDU 330 Independent Study in Education
3-3-0
Students in the first degree (BA Educational Studies/Elementary Education or BA/ BSc Double Major/Secondary Education) may be granted permission to pursue an independent study project under the guidance of a faculty supervisor on a topic in Education. Topics must be approved by the School of Education.
EDU 331 Methods in the Teaching of Language Arts II
3-3-0
This course will allow pre-service teachers to deepen their knowledge and application of literacy-related instructional approaches, particularly for elementary Cycles 2 and 3. It prepares the candidates to plan and design learning that leads students to work critically with all kinds of print, digital texts and multi-model sources, contributing to the development of their language arts competencies. Pre-service teachers will explore: the role of Language Arts in helping learners develop a critical understanding of the world, how to apply literacy practices in the classroom (including new literacies, multiliteracies, critical literacies, and so on) to support examination of concepts across the curriculum, and application of new trends and appropriate assessment tools relevant to literacy practices across subject areas.
Pre or Co-requisite EDU 321.
EDU 334 Methods in the Teaching of Mathematics 3-3-0
The general goal of the course is to learn to teach mathematics in such a way that your students develop "mathematical power." Mathematical power includes both ability (to conjecture, reason logically and communicate about mathematics) and attitude (self-confidence and a disposition to question and explore significant mathematical situations).
The course will focus on the following:
Mathematical content. Students will develop and/ or refine their conceptual and procedural knowledge of the mathematics included in the elementary curriculum. Particular attention will be given to the content recommended in the QEP Math Curriculum Guide.
Mathematical learning. Students will explore instructional strategies and tools for the teaching and assessment of mathematics consistent with constructivist theories. Students will be expected to use this knowledge when planning for instruction. Connecting mathematical ideas. Students will explore ways to link mathematical ideas and to relate mathematics to other subject areas and everyday situations.
EDU 335 Methods in the Teaching of Creative Arts - Elementary 3-3-0 This course provides starting points for students to examine Visual Arts and Music both as separate disciplines and as potent tools in an integrated curriculum. Through a variety of approaches, students receive instruction in theory and teaching practices as well as hands-on experience. During the term students develop their own instructional strategies through the development of a curriculum unit of thematically related, arts based lesson plans and projects.
EDU 339 Effective Teaching and Evaluation Methods I
3-0-0
In this course students will deepen their understanding of Secondary level teaching, learning and evaluation process and practices fundamental to the development and tracking of secondary students' competency. They will explore and construct a conceptual understanding of strategies and how these strategies can be built into daily practice. Drawing on Quebec curriculum guides and policies and current related research, they will develop complex learning and evaluation situations (LES), which will be implemented while in the practicum
Co-requisite: EDU 328
EDU 341 Methods in Teaching English Language Arts at the Secondary Level I

3-3-0
This course will help to prepare students to teach English Language Arts at the Secondary and Adult Education levels. Students will have the opportunity to work on their own writing skills while learning more about how to encourage secondary and adult learners to improve their abilities to read and communicate orally and in writing. They will become familiar with the QEP curriculum objectives for the English program and will be involved in planning units in assorted texts within the current Secondary English curriculum. Students will be exposed to new trends and appropriate assessment tools through classroom activities and assignments.
EDU 342 Methods in Teaching Mathematics at the Secondary Level I

3-3-0
This course will focus on strategies for the teaching of Mathematics in the secondary school curriculum. Students will gain an understanding of the general curriculum objectives, trends and teaching methods through lectures, practice in the problemsolving approach, and discussions of appropriate means for assessment. Students will work on projects and assignments related to course topics at the secondary or adult education levels.

## EDU 343 Methods in Teaching Science and Technology at the Secondary Level I

3-3-0
This course will address the inquiry and problem-solving processes of the Quebec Education Program for Secondary Science and Technology. It will focus on enactment of program competencies in relation to stipulated progressions of learning. Consideration of the nature of science and technology, the kinds of understanding that secondary students develop in science and technology, and how they develop such understandings via collection and interpretation of data will be emphasized. Pre-service teachers will be asked to apply developing understandings through creation of lessons/LESs, conversations and other explorations with peers, evaluation of research in science and technology education, and their subsequent practicum. In addition, the course will consider how science and technology are cultural practices deeply connected to European colonialism, and students will consider how other peoples have come to a practices empirical understanding of the world in ways that might also be considered science.

## EDU 344 Methods in Teaching Social Sciences at the Secondary Level I

3-3-0
This course focuses on teaching strategies and learning concepts in the social sciences as outlined in the Quebec Education Program. Students will gain an understanding of the general curriculum competencies, objectives and trends as well as of the conceptual base and associated methodologies of the social science disciplines. Students will learn how to design a curriculum resource unit including appropriate tasks and assessment tools. They will also learn how to select as well as create resource materials.

EDU 346 Methods in Teaching Mathematics, Science and Technology at the Secondary Level I

3-3-0
This course will focus on approaches for the teaching of Mathematics, Science and Technology while considering the significance of history and culture in the evolution of these fields. Students will learn how to interpret curriculum competencies, objectives and trends, as well as the conceptual bases and associated methodologies of these disciplines. They will also learn how to critically select, design and develop curriculum resource materials and units.

## EDU 348 Professional Seminars Lab (Elementary)

1-0-0
This course is comprised of seminars, workshops, and related activities on special topics aimed to enhance the students' induction into the teaching profession. Students will also be engaged in the reading of selected texts intended to encourage them to consider educational issues in profound and critical ways. The seminars may include guest speakers, discussions and panels, and conferences in preparation for the third practicum.
Co-requisite: EDU 328
EDU 349 Professional Seminars Lab (Secondary)
1-0-0
This course is comprised of seminars, workshops, and related activities on special topics aimed to enhance the students' induction into the teaching profession. Students will also be engaged in the reading of selected texts intended to encourage them to consider educational issues in profound and critical ways. The seminars may include guest speakers, discussions and panels, and conferences in preparation for the third practicum.
Co-requisite: EDU 329
EDU 401 Quebec Education Policy and Law
3-3-0
Students will have an opportunity to study the development of the Quebec education system from historical, political, and legal perspectives. Students will explore major educational ideas such as access to education and the growth of professionalism in the system. Legislation and regulations such as the Quebec Education Act will be examined in the course.
EDU 403 Readings to Promote Educational Thinking 3-3-0
This readings course is intended to encourage student teachers to consider educational issues in profound and critical ways. Drawing from a wide selection of historical and current literature on education, students will produce an academic paper (or alternative assignment) which may be reviewed by their peers for publication in a School of Education collection of student work. The course will be organized around seminar sessions that highlight specific readings as well as group and individual discussions with the professor(s).
EDU 406 Student Centered Evaluation
3-3-0
This course introduces pre-service teachers to the multi-dimensional and complex nature of the evaluation process fundamental to the development and tracking of competency. In this course we will explore and construct a conceptual understanding of evaluation strategies that support student learning and how these strategies can be built into daily practice. We will also construct an understanding of those classroom practices that are required to focus students on expected learning outcomes and determine to what extent these expectations have been met.

EDU 407
Individual Differences
3-3-0
This course focuses on the teaching of students with special needs in inclusionary settings in the school community. Class discussions will centre on issues surrounding inclusion and its implications for teaching adaptations in the classroom and school community. Students will gain an understanding of classroom-based approaches to assessment and instruction that recognize the uniqueness of each student and of the methods and strategies which successfully integrate special populations (including, but not limited to learning disabled, physically challenged, sensory impaired and behavior disordered).
EDU 410 Effective Teaching Methods and Evaluation II 3-3-0
This course will provide secondary education student teachers with an additional exposure to general methods of teaching and enhance their knowledge of student centered evaluation principles and practices.
EDU 411 Methods in Teaching English Language Arts at the Secondary Level II

3-3-0
This course will help to prepare students to teach English Language Arts at the Secondary and Adult Education levels. Students will have the opportunity to work on their own writing skills while learning more about how to encourage secondary and adult learners to improve their abilities to read and communicate orally and in writing. They will become familiar with the QEP curriculum objectives for the English program and will be involved in planning units in assorted texts within the current Secondary English curriculum. Students will be exposed to new trends and appropriate assessment tools through classroom activities and assignments.
Prerequisite: EDU 341
EDU 412 Methods in Teaching Mathematics at the Secondary Level II

3-3-0
This course will focus on strategies for the teaching of Mathematics in the secondary school curriculum. Students will gain an understanding of the general curriculum objectives, trends and teaching methods through lectures, practice in the problemsolving approach, and discussions of appropriate means for assessment. Students will work on projects and assignments related to course topics at the secondary or adult education levels.
Prerequisite: EDU 342
EDU 413 Methods in Teaching Science and Technology at the Secondary Level II

3-3-0
This course will address the inquiry and problem-solving processes of the Quebec Education Program for Secondary Science and Technology. It will focus on enactment of program competencies in relation to stipulated Secondary Science and Technology. It will focus on enactment of program competencies in relation to stipulated progressions of learning. Consideration of the nature of science and technology, the kinds of understanding that secondary students develop in science and technology, and how they develop such understandings via collection and interpretation of data will be emphasized. Pre-service teachers will be asked to apply developing understandings through creation of lessons/LESs, conversations and other explorations with peers, evaluation of research in science and technology education, and their subsequent practicum. In addition, the course will consider now science and technology are cultural practices deeply connected to European colonialism, and students will consider how other peoples have come to a practiced empirical understanding of the worl in ways that might also be considered science. Prerequisite: EDU 343
EDU 414 Methods in Teaching Social Sciences at the Secondary Level II

3-3-0
This course focuses on teaching strategies and learning concepts in the social sciences as outlined in the Quebec Education Program. Students will gain an understanding of the general curriculum competencies, objectives and trends as well as of the conceptual base and associated methodologies of the social science disciplines. Students will learn how to design a curriculum resource unit including appropriate tasks and assessment tools. They will also learn how to select as well as create resource materials.
Prerequisite: EDU 344
EDU 415 Methods in the Teaching of Creative Arts - Secondary 3-3-0 The class itself models several teaching and learning situations and strategies for both elementary and secondary levels of instruction. Students work in groups, with partners and alone. Peer tutoring is used for part of the creative movement/ dance unit. Students are given the opportunity each semester to talk with an artist currently exhibiting at the art gallery. Students are expected to develop sequential arts-based lessons formally, thematically and experientially, drawing on in-class situations modeled for them. Students are made aware of Howard Gardner's Multiple Intelligences Model and the importance of matching teaching and learning styles.

## EDU 416 Methods in Teaching Mathematics, Science and Technology at the Secondary Level II 3-3-0

This course will focus on approaches for the teaching of Mathematics, Science and Technology while considering the significance of history and culture in the evolution of these fields. Students will learn how to interpret curriculum competencies, objectives and trends, as well as the conceptual bases and associated methodologies of these disciplines. They will also learn how to critically select, design and develop curriculum resource materials and units.
Prerequisite: EDU 346
EDU 418 Methods in Teaching Second Languages - Secondary 3-3-0 This course examines recent developments in second language teaching approaches and methods, particularly as they relate to the selection of teaching material, choice of techniques for the second language classrooms and appropriate means of assessment. It includes a brief historical overview of language teaching methods and approaches.

## EDU 419F Interdisciplinary Teaching and Integration of Learning at the Elementary Level

6-6-0
In this course, students explore the meanings of "transformation through education" by designing interdisciplinary learning situations [unit plans] that lead learners to explore issues and questions that are trans-disciplinary in nature, such as those described in the Broad Areas of Learning of the QEP. This course also provides the context for students to integrate their learning, as their unit plans must show evidence of understanding of a range of concepts, methods, and strategies from other courses taken as part of the program. This course is scheduled over two semesters; when the internship practicum is complete, students return to the university where they synthesize their learning and provide evidence of the capacity of ongoing critical reflection and commitment to the transformative power of education.

## EDU 420F Interdisciplinary Teaching and Integration of Learning at the Secondary level

6-6-0
In this course, students explore the meanings of "transformation through education" by designing interdisciplinary learning situations [unit plans] that lead learners to explore concepts such as peace and human security, sustainable urbanization, gender equality, and poverty reduction. Students are required to collaboratively plan the learning situations, thereby increasing their awareness of the conceptual and textual features of disciplines other than their own. This course also provides the context for students to integrate their learning, as their unit plans must show evidence of understanding of a range of concepts, methods, and strategies for other courses taken as part of the program. This course is scheduled over two semesters; when the internship practicum is complete, students return to the university where they synthesize their learning and provide evidence of the capacity of ongoing critical reflection and commitment to the transformative power of education.
EDU 433 Methods in the Teaching of Elementary Social Sciences 3-3-0 This course will prepare pre-service teachers with the understandings, skills, and methods to support their learners' social science curriculum competencies, and support their evolving world view. Pre-service teachers will explore the role of social sciences in helping learners develop a critical understanding of the Canadian history and environment; this includes specific attention to FNIM issues and perspectives. The course also addresses relevant assessment tools and practices.
EDU 434 Methods for Scientific Inquiry and Problem Solving $\quad$ 3-3-0 As a complement to Methods for Social Inquiry and Literacy, this course will continue to prepare pre-service teachers in supporting their learners' evolving world view. Pre-service teachers will explore: the role of science and mathematics in helping learners develop a critical understanding of the world, how inquiry strategies and problem solving can be applied in a natural science and mathematics context, and assessment tools relevant to inquiry and problem solving in science and mathematics

The following, EDU 227, EDU 228, EDU 229, EDU 328, EDU 329, EDU 428 and EDU 429, take place in assigned educational settings:
EDU 227 Alternate Practicum II 3-3-0
This second-year field experience in the elementary or secondary school setting, involves a combination of half and full days over the Fall semester of a minimum of 70 hours. Students begin to integrate theory Students begin to integrate theory from courses with field-based practice and carry out aspects of the teaching act in collaboration with associate teachers and university supervisors. They participate in the life of the school inside and outside the classroom. In extenuating circumstances, with the permission of the Department Chair.
EDU 228 Practicum II - Elementary
3-3-0
This second-year field experience in the elementary school setting involves a combination of half and full days over the Fall and Winter semester of a minimum of 70 hours. Students begin to integrate theory from courses with field-based practice and carry out aspects of the teaching act in collaboration with associate teachers and university supervisors. They participate in the life of the school inside and outside the classroom.
EDU 229 Practicum II - Secondary
3-3-0
This second-year field experience in the secondary school setting involves a combination of half and full days over the Fall and Winter semester of a minimum of 70 hours. Students begin to integrate theory from courses with field-based practice and carry out aspects of the teaching act in collaboration with associate teachers and university supervisors. They participate in the life of the school inside and outside the classroom.
EDU 328 Professional Practice
6-3-0
Through field experience in the elementary school setting, students will integrate theory with practice in this practice teaching placement. Students will plan, present, and self-evaluate lessons in collaboration with faculty supervisors, university teaching associates, and associate teachers. They will evaluate students and participate in the life of the school inside and outside the classroom.
EDU 329 Professional Practice
6-3-0
Through field experience in the secondary school setting, students will integrate theory with practice in this practice teaching placement. Students will plan, present, and self-evaluate lessons in collaboration with faculty supervisors, university teaching associates, and associate teachers. They will evaluate students and participate in the life of the school inside and outside the classroom. Students in certain secondary profiles may be placed in an adult education setting.
EDU 428 Internship - Elementary
12-0-0
This practicum is the culmination of the students' socialization into the profession of teaching. Through a lengthy elementary school immersion, students synthesize theories with practice to assume the competencies required of a teacher in the classroom and in the profession. Students become full-time teachers and colleagues with associate teachers, university teaching associates and faculty supervisors. They focus on long term and short term planning and implementing units of study. They experience all the challenges of the profession: teaching and evaluating students, interviewing parents, working on teams, organizing extra-curricular activities, and participating in professional development activities.

## EDU 429 Internship- Secondary

12-0-0
This practicum is the culmination of the students' socialization into the profession of teaching. Through a lengthy secondary school immersion, students synthesize theories with practice to assume the competencies required of a teacher in the classroom and in the profession. Students become full-time teachers and colleagues with associate teachers, university teaching associates and faculty supervisors. They focus on long term and short term planning and implementing units of study. They experience all the challenges of the profession: teaching and evaluating students, interviewing parents, working on teams, organizing extra-curricular activities, and participating in professional development activities. Students in certain secondary profiles may be placed in an adult education setting.

## Division of Humanities

## Overview

The Division of Humanities offers a wide array of courses and programs in the traditional liberal arts disciplines of Classical Studies, Languages, Literature, Philosophy, History and Religion; interdisciplinary programs in Liberal Arts and in Arts Administration; as well as programs (involving both historical and practical study) in the three creative arts of Drama, Fine Arts and Music.

## Degrees and Programs

Detailed descriptions of the degrees and programs offered are found under the respective Departmental sections of this calendar. The Division of Humanities offers a wide range of Major programs leading to a Bachelor of Arts (B.A.). In addition, the Departments offer Honours programs directed towards students that wish to attain higher levels of specialization in their discipline and that intend to pursue graduate studies. In addition, several departments offer Minor programs that can be added to one's Honours/Major program and some departments may offer certificate programs.

## Divisional Major

The Division offers an entry level program for a limited number of students, allowing them to register as Divisional Majors (rather than into a specific program) for a maximum of two semesters. After two semesters of full-time study are completed, students must enrol into a specific program (Major). Students who are not accepted into one of the regular programs must consult with the Dean of Arts and Science to determine an academic plan.

## Arts \& Science and Divisional Requirements

In order to encourage students enrolled in the Division of Humanities to broaden the scope of their education, all majors and honours must complete at least three credits in each of the four categories listed below. While these requirements will not in themselves ensure against excessive specialization, it is hoped that they will lead students to find and pursue various areas of interest.

$$
\left.\left.\begin{array}{cl}
\text { Category I: } & \begin{array}{l}
\text { Languages and Literature, including } \\
\text { Greek, Latin, English and French, with the } \\
\text { exception of "101" courses in Modern }
\end{array} \\
\text { Languages; 100-level courses in English } \\
\text { as a Second Language. CLA 112 and }
\end{array}\right\} \begin{array}{l}
\text { 113 will also be considered as Category I } \\
\text { courses. }
\end{array}\right\}
$$

No courses offered by the department in which the student is doing an honours or major may count towards fulfilling these requirements. Students with program combinations which require more than 72 credits are exempt from these requirements.

## Departmental Honours Programs

Students must normally obtain a $70 \%$ average, as calculated from the best 60 credits in the Honours discipline (including cognates), in order to graduate with an Honours degree in any Humanities Program. (See under individual departments for particular honours requirements.)

## Transfers from Other Programs

Students who wish to transfer from other departments or programs in the University into a program in the Division of Humanities must have maintained a cumulative average of $60 \%$ on all courses taken.

## Graduation "with Distinction"

The notation "with Distinction" will appear on the transcript of students who graduate with a cumulative average of $80 \%$ or more. It is only available for first degree students.

## Divisional Course

ILT 102 Information Retrieval and Evaluation Skills for the Humanities (Lab)

1-0-1
The objective of this laboratory course is to introduce students to the skills necessary to effectively complete their research assignments, including the correct use of library resources, such as the online catalogue, periodical indexes and other relevant databases. Other areas of study include the identification of key terms for effective searching, productive use of the internet, and the critical evaluation of retrieved resources. Academic integrity, plagiarism, and the correct citation of print and online sources are also covered. Taught in conjunction with a researchbased course, the specific resources relevant to research in the Humanities are introduced, and the students retrieve the material necessary to complete the essays for their particular course. The course is taught in the library's electronic classroom, and each week the students are given the opportunity for practical experience. To see how ILT 102 is currently linked to your program, check requirements under various departments in the Humanities (e.g., required for Modern Languages and History). The course is open to all students, regardless of program.

## Art History

## Faculty

## Claude Lacroix,

B.F.A (Ottawa), M.A. (Montreal), Ph.D. (École des hautes études en sciences sociales); Associate Professor, Chair of the Fine Arts
History and Theory Program

## Program Overview

We live in a world defined by images. Art History helps us to understand our visual world and to probe the complexities of images, objects, and artifacts found in art and culture. Through the methods and concepts of art history, students learn the 'visual' language of images as they acquire knowledge and understanding of all forms of visual arts ranging from earliest cave paintings to latest new media installations, from monumental to miniature.

Using diverse approaches and theories, art is critically analyzed in the larger social, cultural, economic, institutional, and ideological context of its production, display, and reception. As students engage with works of art and key texts in art history, theory, and criticism, they develop visual as well as verbal and written literacy. Art History fosters creative and critical thinking, inquiry, analysis, and effective communication skills.

In its cross-disciplinary reach, Art History is a unique and wide-ranging discipline that encompasses aspects of history, philosophy, religion, psychology, sociology, gender studies, and cultural studies. Cognate courses with the department of Classical Studies and cross-listed courses with the departments Sociology and History are offered to broaden the students' conceptual horizons.

While our program is primarily designed to meet the needs of Fine Arts students in Art History and Studio, we welcome students from all disciplines to the many courses that do not have prerequisites. Some of these courses are particularly appealing to students in Cultural Studies and New Media, Popular Culture, Religion, and Public History.

## Programs and Requirements

## The Art History Program offers Minor, Major and Honours Programs:

Art History Credits (FIH): Students can choose to focus on period-based, thematic or theory-based courses in art history.

Studio Credits (FIS): According to their personal interest, students can opt for a broad experience in studio by taking one of each of the foundation-level courses (drawing, painting, printmaking, photography, and sculpture) or a more specialized approach by focusing on one medium from level I through IV.
Elective Credits: Can be completed in FIH, FIN cross-listed, and cognate courses depending on each of the three programs below.

## Honours in Art History and Theory (60 credits) <br> HONFIH

Students enrolled in the Honours Art History and Theory program must successfully complete 60 credits comprising 42 credits ( 14 courses) in art history or FIN cross-listed and cognate courses, and 18 credits ( 6 courses) in studio courses (FIS and FIN). Students can apply to the Honours Program any time after the completion of 15 credits in art history courses. The 60 credits required for the Honours degree must include:

FIH 100 The Art of Viewing: Introduction to Art History
FIH 102 Survey of Western Art II:
Renaissance to Neoclassicism
12 credits ( 4 courses) in 200-level courses in art history (FIH)
9 credits ( 3 courses) in 300-level courses in art history (FIH)
Any 6 credits ( 2 courses) in art history courses
9 credits ( 3 courses) elective in FIH and FIN cross-listed or cognate courses to be selected in consultation with the Art History and Theory program chairperson
18 credits in studio arts (FIS and FIN)

## Suggested course of study:

## Year one:

FIH 100, FIH 102, and two 200-level FIH or electives courses (FIN or cognates)
Two FIS courses

## Year two:

Five FIH and electives courses (FIN or cognates) with a minimum of one FIH 300-level course
Two FIS courses

## Year three:

Five FIH and electives courses (FIN or cognates) with a minimum of two FIH 300-level courses
One FIS course
A student has the option of completing the Honours over 4 years, especially if enrolled also in a major or minor in another discipline.

## Major in Fine Arts Concentration in Art History and Theory <br> (48 credits) MAJFIN+CONFHT

Students enrolled in the Major in Fine Arts with a Concentration in Art History and Theory must successfully complete 48 credits comprising at least 27 credits ( 9 courses) in art history courses (FIH), 15 credits ( 5 courses) in FIS and FIN studio courses, and 6 credits to be selected from FIH courses, FIN cross-listed and cognates courses in consultation with the Art History and Theory program chair.

The 48 credits required for the Concentration in Art History must include:

FIH 100 The Art of Viewing: Introduction to Art History
FIH 102 Survey of Western Art II:
Renaissance to Neoclassicism
12 credits ( 4 courses) in 200-level courses in art history (FIH)
9 credits ( 3 courses) in 300-level courses in art history (FIH)
6 credits (2 courses) elective in FIH and FIN cross-listed and cognate courses to be selected in consultation with the Art History and Theory program chairperson
15 credits in studio arts (FIS and FIN)

## Suggested course of study:

## Year one:

FIH 100, FIH 102, and one 200-level FIH course
Two FIS courses

## Year two:

two 200-level art history courses
one elective FIH, FIN or cognate course
one or two 300-level art history course
Two FIS courses

## Year three:

one 200-level art history course
one elective FIH, FIN or cognate course one or two 300-level art history courses one FIS course

A student enrolled in a double major in Fine Arts Art (History/ Studio) or another discipline can complete the requirements over a 4-year period.

## Minor in Art History and Theory ( 24 credits)MINFIH

The Art History and Theory Minor is for students in any discipline who, in addition to their major concentration, wish to develop a secondary area of expertise in art history. The Minor allows students to sample from the courses offered through the Art History Program: introductory, period-based, thematic, and advanced courses. Students must complete any 24 credits ( 8 courses) of their choice in Art History (FIH) or cross-listed coursed (FIN 235, FIN 292 and FIN 388), including a minimum of 6 credits at the 300 level.

## List of Courses

## Introduction Courses (100-level courses)

NB: FIH 100 and FIH 102 requirements are offered every year. FIH 100 The Art of Viewing: Introduction to Art History 3-3-0 This course is for any student interested in looking at, thinking about, and understanding works of art and visual media in general. We look at various mediums, ranging from painting and sculpture to video, performance, and Net art. We think about world art in relationship to Western thought and culture, the canon of traditional art history that has shaped our perception, and explore alternative histories of art. We reflect on the circulation, transmission, and display of art through private and public patronage, collections, and exhibitions. We consider the social and material conditions of viewing, and how mediums and social determination condition visual understanding. Finally, we seek to understand the possible content or meaning of art through different methods of interpretation. Overall, the course aims to provide students with the visual, verbal, and conceptual skills fundamental to the description, appreciation, analysis, and criticism of the visual media.
FIH 101 Survey of Western Art I: Prehistory to Medieval 3-3-0 Introduction to concepts and methods of art history. Survey of the visual arts from the Paleolithic Era through the Middle Ages.

FIH 102 Survey of Western Art II: Renaissance to Neoclassicism 3-3-0 This course explores the classical tradition and its developments in painting, sculpture and architecture from the co-called rebirth of Greco-Roman Antiquity in the early 15 th century to the revival of classicism in the mid-18th century. Religious and secular key works from the Renaissance, Mannerism, Baroque, Rococo and Neoclassicism are studied in the changing social, cultural and political contexts of their production, such as humanism, the Reformation and Counter-Reformation, the academy, absolute monarchies, and the Enlightenment.

## Intermediate Period-Based Courses <br> (200-level courses)

## FIH 219 Neoclassicism to Post-Impressionism 3-3-0

This course examines major developments in painting, sculpture and photography. Neoclassicism, Romanticism, Orientalism, Realism, Impressionism, PostImpressionism and Symbolism are considered within the broad cultural context of their production, display and reception. The effects of the tumultuous political circumstances of social unrest and the Industrial Revolution will be observed from the min-19th to the mid-19th century, when art emerged as a politically-engaged, publicly-oriented force, until the end of the century, when artists retreated to a private, subjective realm.
FIH 220 Twentieth-Century Art to the Sixties
3-3-0
Western art from Expressionism to Abstract Expressionism. Major European movements (such as Cubism, Futurism, Dada, Surrealism, Constructivism) and American ones (from the Ashcan School to the New York School) will be studied. Topics include the paradigms of figuration and abstraction, innovations such as collage and photomontage, the contribution of literary movements, appropriations from non-Western cultures, and the influences of Freudian and Jungian theories, socialist ideas, the Russian Revolution, totalitarian regimes, and two World Wars on artists.
Prerequisite: FIH 100 or FIH 102 or consent of instructor
FIH 221 Art Since the 1960s
3-3-0
The international art scene from the 1960s to today. Topics include Pop art, French Nouveau Réalisme, Minimal art, Italian Arte Povera, Conceptual Art and the International Fluxus movement from the sixties; the pluralistic seventies - when performance, video, Body Art, Land art, installation and Feminist art seemed to proclaim the 'death' of painting; the drastic return of painting by the eighties (with Neo Expressionism, Bad Painting, Graffiti art, etc.), and some of the challenges linked to the globalization of art to this day.
Prerequisite: FIH 100 or FIH 102 or consent of instructor

## Intermediate Thematic Courses (200-level courses)

FIH $225 \quad$ Special Topic in Canadian Art
3-3-0
This course deals with aspects, issues or themes in Canadian art ranging from the colonial times to the present. Possible topics include the art of the First Nations, the legacy of the early French and English settlers, national identity and cultural diversity, or recent developments in the visual arts of Canada.
FIH 230 History and Theories of Photography
3-3-0
An exploration of the changing nature of photographic thinking and practice from early 19th century experiments to present day digital and post-photography. Different visions and modes of representation are addressed, such as photographic 'truth', photography as art, and photography as a means of mass communication (i.e. photojournalism, advertising, fashion and celebrities photographs, propaganda, etc.). In light of its multiple functions in art and culture, the photographic image is studied as part of a larger social, economic, institutional and ideological frame.

FIH 240 Art, Popular and Mass Culture 3-3-0
A historical and theoretical exploration of the relationships between the 'high' and 'low' arts since Antiquity. Walter Benjamin saw traditional fine arts having an aura - a quality of being distant and unapproachable - , while reproducible works (i.e. photography, film, etc.) do not: they have to do with the here and now, which makes them popular. While addressing topics such as the Olympics, the Roman arenas, the printing press' impact on the diffusion of ideas and literature, the effects of photography and mass media, this course examines the continuous reconfiguration in the definitions and boundaries between fine arts, popular and mass culture in light of social history, philosophy, psychology, and visual and cultural studies.

## FIH 246 Public Art and Monuments

3-3-0
An exploration of art made for public spaces and public viewing taking into consideration aspects such as site, natural environment or urban settings, commemoration and politics, the public sphere and the audience.
FIH $260 \quad \begin{array}{ll}\text { Art and Nature: From Landscape to Environmental } \\ \text { and Ecological Art }\end{array}$
3-3-0
This course analyses how the relationship between art and nature has been constructed through aesthetic and symbolic representations as diverse as that of the mystic Garden of Eden, landscape painting since the Renaissance, the sublime in nature, French and English gardens, and urban parks, such as Central Park. It also examines the direct involvement with nature in Earthworks and Land Art since the late 1960s and, as artists became conscious of environmental issues in the eighties, in Environmental Art, Ecological Art, and art interventions within ecosystems.

FIH 290 Current Topics in Art History
3-3-0
This course explores issues of current importance in the practice and interpretation of art. Such as: Art and Technology; Philosophy and Criticism of Art; Women and Art; Gender Issues in the Visual Arts; and Art and Politics. Specific topic to be posted in advance of registration.

## Advanced Courses (300-level courses)

FIH 314 Colonial and Postcolonial Issues in the Visual Arts 3-3-0
This course addresses colonial and postcolonial experiences of art. It examines topics such as the representation of the exotic 'other', the construction of the colonial subject, the ideology of the colonizer, the Eurocentric gaze, racism, the impact on modern art of primitivism, ethnographic museums, and World Fairs, and ambivalent notions of the 'primitive'. In conjunction with multiculturalism, identity politics, and globalization, the course also explores the place of non Western art in the international scene.
Prerequisite: FIH 100, FIH 102, and two FIH 200-level courses

## FIH 318 Current Art Practices and Production <br> 3-3-0

This course proposes a critical investigation of ongoing movements and tendencies in the visual arts within their socio-economic context and political history. Contemporary arts being concomitant with currently unfolding societies, they will be addressed in a climate of historical immediacy. Hence, this course takes on a theoretical approach to topics pertaining to contemporary conditions of art production and practice.
Prerequisite: FIH 100, FIH 102, and two FIH 200-level courses
FIH $320 \quad$ Special Topic in Art History and Theory
3-3-0
This course will address an aspect, issue or theme in art from a multidisciplinary approach to a specific medium or time period ranging from the antiquity to the present, or across time, artistic styles and movements. Possible topics include: Issues in Sculpture, Performance or Video Art; The Body in Art; Art, Scandal and Censorship.
Prerequisite: FIH 100, FIH 102, and two FIH 200-level courses

FIH 323
Seminar in Art History, Theory and Criticism of Art
3-3-0
Advanced course that explores in-depth a topic in art history, theory or criticism of art. Specific topics to be posted in advance of registration.
Prerequisite: FIH 100, FIH 102, and two FIH 200-level courses
FIH 350
Independent Study in Art History I
3-0-0
Open to students who have completed 27 credits in Art History. Students must submit a formal proposal to the art history program outlining a project to be undertaken independently in consultation with the instructor. Approval is contingent on acceptance of the proposed project or course of research.
Prerequisite: two FIH 300-level courses.
FIH 351 Independent Study in Art History II 3-0-0
Open to students who have completed 27 credits in Art History. Students must submit a formal proposal to the art history program outlining a project to be undertaken independently in consultation with the instructor. Approval is contingent on acceptance of the proposed project or course of research.
Prerequisite: FIH 350

## Cross-Listed Courses

FIN 235 Museology 3-3-0
An introduction to theoretical and practical aspects of museology. The history and function of art museums, collection and conservation, museum administration and the organization of exhibitions are treated in the course, which includes projects in exhibition management.
Prerequisite: FIH 100 or FIH 102 or consent of instructor
FIN 292 / SOC 291 Sociology of Art
3-3-0
An introduction to the Sociological study of the Arts. The course focuses on the social practices and organizational frameworks related to artistic production/ creation, mediation processes, and the reception of art works and artists. Attention will be given to issues related to race, gender, class, and power.
FIN 388 / HIS $298 \quad$ Museums and Communities 3-3-0
This inter-disciplinary lecture/seminar course offers students an introduction to a range of theoretical approaches and contemporary developments in the field of Museology. Through case studies and actual work with community groups students will have the chance to experiment with key processes around critical museum work today (rational, documentation, mediation, scenography).
Prerequisites: FIH 100 or FIH 102 or consent of instructor

## Cognate Courses

Credited for Art History Concentration and Honours
AAD 250 Arts Administration: Internal Operations
3-3-0
The course will examine various types of arts organizations from the perspective of the management of artistic resources: accounting, finance, human resources, project management and production organization.
AAD 251 Arts Administration:
The External and Legal Environment
3-3-0
This course will examine the social/political context of cultural operations. Among the topics analysed are: the legal aspects in not-for-profit organizations, board governance, labour issues and the status of the artist, funding structures government and private sector, networking.
Prerequisite: AAD 250 or permission of instructor
AAD 252 Arts Administration:

## Communications and Marketing

3-3-0
The course will examine the area of public relations and business communication as it relates to cultural promotion: marketing, press releases, advertising, sponsorship, consumer behaviour.
AAD 353 Arts Administration: Practicum
3-3-0
This course will be a directed independent study in which the student is placed in a range of posts in the arts industry and in not-for-profit cultural agencies.
Prerequisites: AAD 250, AAD 251, AAD 252
CLA 110 The Art and Archaeology of Ancient Egypt 3-3-0 A survey of the art and architecture of ancient Egypt from the Pyramids to the Valley of the Kings and an introduction to the archaeological discoveries made in Egypt in the twentieth and twenty-first century.

CLA 205 Greek Art and Architecture
3-3-0
Western art and architecture begin in ancient Greece. From miniature vases to monumental statues of ivory and gold, we will explore the creations of potters and painters, sculptors and architects, and study Greek art from the Bronze age to the time of Alexander the Great.
Open to first-year students.
CLA 206 / REL 203 Early Christian and Byzantine Art 3-3-0 This course examines the ways in which the Christians adapted elements from Greek, Roman and Near Eastern art and architecture to their religious beliefs and requirements and also studies the development of this new Christian art in the Byzantine Empire. Major topics include: Catacomb art, early Christian and Byzantine architecture, mosaic and painting, manuscript illuminations, textiles and the minor arts.
Open to first-year students.
CLA 207 Early Roman Art
3-3-0
In this course we will begin with a study of the colorful wall paintings of Etruscan tombs where men and women drink and dance, and panthers and lions guard the dead. Once rulers of Rome, the Etruscans and their art declined as the Roman Republic grew powerful. We will examine how the Romans developed an innovative art and architecture which expressed the values of their society.

CLA 208 Art and Architecture of Imperial Rome 3-3-0 A survey of Roman art and architecture from the first century C.E. to the fourth century C.E. The course examines the use of art as propaganda and the tension between tradition and innovation in Roman Art.

CLA 238 / REL 238 Greece, Land of the Gods 6-6-0 This six-credit course examines the sacred art and architecture of ancient Greece from Mycenae to Byzantium on site in Greece. Offered in the Spring semester. After preliminary lectures on campus students will spend two weeks traveling to the major sacred sites of mainland Greece. Travel plans must be finalized by the middle of January prior to departure in May. Contact the Classics department for information.
American students on US Federal aid cannot enrol in this course for credit. Open to first-year students. Instructor's permission required.

## LIB 213 The Use and Abuse of Beauty <br> 3-3-0

French writer Stendhal said in the 19th century that "beauty is the promise of happiness" and, upon seeing the beauty of Florence, he wondrously proclaimed, "I was in a sort of ecstasy... absorbed in the contemplation of sublime beauty ... Everything spoke so vividly to my soul." Yet only decades later his compatriot, poet Arthur Rimbaud, claimed that he wanted to "abuse" beauty, for he found her "bitter." Dadaist and surrealist artist Tristan Tzara went even further, "I have a mad and starry desire to assassinate beauty..." Does Tzara signal not only a dramatic change in Western art, but the claim that all forms of harmony and beauty, including the personal and the political, are conservative. Or is the beautiful in some important sense still of what we might call "transcendent" importance to human life? This course will explore the fate of the beautiful, from the Greeks to 21st century life.

PHI 346 Topics in The Philosophy of Art
3-3-0
A look at some attempts by major thinkers to account for the nature of art and beauty, focusing on texts of Plato and Aristotle, Kant and Hegel, Nietzsche and Heidegger.

## Arts Administration

## Faculty

Jean L. Manore,
B.A. (Western), M.A., Ph.D. (Ottawa); Professor
Chair of the Program

## Program Overview:

Students are admitted to a Humanities Divisional Major in Arts Administration (MAJDHA). This 75-credit interdisciplinary program combines the study of business, creative arts, and public culture and arts administration. The goal is to provide students with the skills and knowledge needed to participate in the business and organizational areas of the cultural sector. Students normally begin the program with core courses in Arts Administration, Business and one of the Arts concentrations (Drama, Fine Arts, Film Studies, Music, Public History). As they proceed through the program, they will enrol in two practicum courses: AAD 253 (Internal Practicum), where they will be placed with an oncampus organization (Centennial Theatre, Foreman Art Gallery, Musique Chez Nous, Drama department, etc.) for their first work experience; and nearer to graduation AAD 353 (External Practicum), in an off-campus cultural venue consistent with their disciplinary focus.

Students should identify which of the concentrations they wish to follow at the time of application to the program. Please consult the Chair of the Arts Administration Program for advice concerning program requirements. The two practicum courses will be arranged by the professor of the Arts Administration courses, along with representatives of the different concentrations.

Students are permitted to register in a program that combines Arts Administration and a Major in their Arts concentration (i.e. 42 or 48 credits instead of 30 ). Those in 120 -credit degrees are strongly encouraged to do so, or to pursue a minor (24 credits) in a second Arts discipline. Concentration courses may be dou-ble-counted towards the Major.

A Minor in Arts Administration is open to students Majoring in Business or one the Arts Concentrations of the program.

Students following an Arts Administration program who wish to add a Business program should contact the Williams School of Business.

## Required courses: Arts Administration (15 credits)

These three specialized courses, along with the two practicum experiences, will provide students with specific knowledge of arts administration as well as hands-on experience.

## AAD 150 Introduction and Internal Operations

3-3-0
The course will examine various types of arts organizations from the perspective of the management of artistic resources: accounting, finance, human resources, project management and production organization.
Students who have completed AAD 250 may not take AAD 150

AAD 200 Arts Administration Special Topic
3-3-0
This will be a lecture course offered by different professionals in the field on topics not covered in the regular Arts Administration courses. The course will be taught on an occasional basis.

## AAD 251 Arts Administration:

The External and Legal Environment
3-3-0
This course will examine the social/political context of cultural operations. Among the topics analysed are: the legal aspects in not-for-profit organizations, board governance, labour issues and the status of the artist, funding structures government and private sector, networking.
Prerequisite: AAD 250 or permission of instructor

## AAD 252

Arts Administration:
Communications and Marketing 3-3-0
The course will examine the area of public relations and business communication as it relates to cultural promotion: marketing, press releases, advertising, sponsorship, consumer behaviour.
AAD 253 Arts Administration - Internal Practicum 3-1-10 This course is to provide students with administrative experience working with real-life artistic and cultural organizations, on the Bishop's campus. It will be supervised by the faculty member who runs the organization. This course can be taken any time after the completion of AAD 150 , and must be completed before taking AAD 353.
Prerequisites: AAD 150
AAD 300 Independent Study $\mathbf{3 - 1 - 0}$
An individual project on a subject approved by a Faculty member from the program.
AAD 353 Arts Administration: External Practicum 3-3-0
This course will be a directed independent study in which the student is placed in a range of posts in the arts industry and in not-for-profit cultural agencies. This course should be taken before the final semester.
Prerequisites: AAD 250, AAD 251, AAD 252

## Business ( $\mathbf{3 0}$ credits)

Full descriptions of the following can be found in the calendar section of the Williams School of Business. These courses will provide a foundation in the major functional area of business management. For assistance in registering in Business courses, please contact the Department Chair of the Williams School of Business.
BAC 121
BFN 100
Purposes of Accounting
BHR 221 Organizational Behaviour
BHR 224 Human Resource Management
BMG 100 Understanding Business and Society
BMG 215 Introduction to International Business
BMK 211 Marketing Management
BMK 214 Consumer Behaviour
ECO 102 Principles of Economics: Microeconomics
ECO 103 Principles of Economics: Macroeconomics
In terms of when to take these courses, the following sequence is recommended:
First-year: ECO 102 - ECO 103 - BAC 121- BMG 100 BMK 211
Subsequent: BFN 100 (after ECO 103 and BAC 121) BHR 221 - BMG 215 - BMK 214 (after BMG 100 and BMK 211)
BHR 224 (after BHR 221)

## Concentrations:

## Drama, Fine Arts, Film Studies, Music or Public History

Full descriptions of these courses can be found in the calendar sections of the departments. A Concentration in one of these departments will ensure that students gain a solid grounding in one of the creative arts. Inquiries regarding prerequisites or any problems concerning the lists below should be addressed to the Chair of the appropriate Department.

## Drama (30 credits)

MAJAAD
(all of the following)
DRA 101 Introduction to Technical Theatre
DRA 102 Introduction to Theatre
DRA 110 Introduction to Theatre II
DRA 131 Acting I
DRA 201 Contemporary Canadian Drama
DRA 222 Introduction to Shakespeare
DRA 246 Directing I
One (3-credit) course from:
DRA 211, DRA 212 or DRA 230
One course (3 credits) chosen from:
DRA 250 Intermediate Technical Theatre Stagecraft
DRA 251 Lighting Design
DRA 370 Independent Study Special Project
One other course (3 credits) in Drama

## Fine Arts (30 credits)

## Fine Arts History Courses (21 credits)

The Art of Viewing: Introduction to Art History Survey of Western Art II:
Renaissance to Neoclassicism
Any 15 credits selected from:
FIH 220 Twentieth Century Art to the Sixties
FIH 221 Art since the 1960s
FIH 225 Special Topic in Canadian Art
FIH $230 \quad$ History and Theories of Photography
FIH 240 Art, Popular and Mass Culture
FIH 246 Public Art and Monuments
FIH 260 Art and Nature: From Landscape to
Environmental and Ecological Art
FIH $290 \quad$ Current Topics in Art History
FIH 314 Colonial and Postcolonial Issues in the Visual Arts (Prerequisite)
FIH 318 Current Art Practices and Production (Prerequisite)
FIH $320 \quad$ Special Topic in Art History and Theory (Prerequisite)
FIH 323 Seminar in Art History, Theory and Criticism of Art (Prerequisite)
FIN 235 Museology (Prerequisite or consent from the instructor)

Museums and Communities (Prerequisite or consent from the instructor)

## Fine Arts Studio Courses ( 9 credits):

One course each in Drawing, Painting, and Sculpture
Music (30 credits) ..... MAJAAM
Music History and/or Literature. ..... 12 credits
Music Theory ..... 9 credits
Ensemble Courses ..... 2 credits
Practical Study ..... 4 credits
Music Electives ..... 3 credits
Film Studies (30 credits)
ENG 102 Approaches to Media StudiesENG 170 Introduction to Film Studies
ENG 279 Film History to 1939
ENG 280 Film History after 1939At least one course chosen from:
ENG 281 Canadian Cinema
FRA 259 Québec Cinema
At least one course chosen from:
ENG 382 Screen writing
ENG 383 Digital Filmmaking
ENG 384 Documentary FilmmakingAdditional credits, for a total of 30 chosen from:CLA 150 The Ancient World in Film and Television
ENG 124 The Graphic Novel
ENG 217 The Arthurian Tradition
ENG 218 The Gothic Tradition
ENG 236 Popular Culture
ENG 278 Science Fiction in Literature and Film
ENG 282 Film Adaptation
ENG 283 Documentary Film
ENG 284 Film Noir
ENG 288 Crime Pays: The Gangster Film Genre
ENG 293 Four Filmmakers
ENG 294 Film Comedy
ENG 295 Jane Austen and Film
ENG 297 From Aliens to Zombies
ENG 298 Studies in Directors/Actors: Alfred Hitchcock
ENG 350 Ghosts in the Machine: Technology, Media \&Literature in Victorian England
ENG 381 The Evolution of the Fairy Tale in Literature andFilm
ENG 463 Senior Seminar: Screen Writing
FIH 230 History and Theories of Photography
FIH 240 Art, Popular and Mass Culture
FRA 250 French Cinema
GER 270 Introduction to German Film
GER 271 Rebels with a Cause: East German Cinema
HIS 332 The Celluloid Republic
ITA 309 Italian Cinema and Society
ITA 310 Italian Cinema and Society II
MUS 115 Music for the Movies I
MUS 116 Music for the Movies II
PHI 345REL 237 Film and Religion
SOC 105SOC 241 Cinema
SPA 318 Spanish CinemaMAJAAIPublic History (31 credits)MAJAAH
HIS 101 History Methods LabTwo other 100-level coursesHIS 200 Historical Methods and Theories
HIS 240 History and Heritage
HIS 391 History Internship (equivalent to AAD 353)
HIS 396 Public HistoryThree courses chosen from:HIS 227 The Stuff of History: An introduction to MaterialCulture*HIS 228 Witnessing Atrocities: Truth and Reconciliation ina Global Context**HIS 229 Human Rights and Humanitarian Organizations
HIS 236 Public Art and MonumentsHIS 239 History and the Archives
HIS 275 Digital History***
HIS 298 Museums and CommunitiesCLA 240 Signs of the Past: Archaeological InterpretationHIS 392 Research Internship
One other 300-level courses
Minor in Arts Administration (24 credits)

MINAAD
The minor in Arts Administration provides an introduction to the discipline of Arts Administration. The Minor consists of 24 credits including 12 credits in Arts Administration. For Arts students, the AAD Minor would be limited to Majors already enrolled in one of the following Arts disciplines: Drama, Fine Arts, Music, Film/ Media Studies, Public History. Students enrolled in Business may also add this Minor to enrich their degree.

## Requirements

## 1.) For Arts Students

The AAD Minor would be limited to Majors already enrolled in one of the following Arts disciplines: Drama, Fine Arts, Music, Film/Media Studies, History

## Required Courses:

12 credits in Arts Administration: AAD 150, 251, 252 plus one additional AAD course (recommended internal or external practicum)
12 credits in Business: BMG 100, BMK 211, BAC 121 plus one Business elective
N.B. Humanities students may not combine an AAD minor with a Business program.

## 2.) For Business Students

## Required Courses:

12 credits in Arts Administration: AAD 150, 251, 252 plus one additional course (recommended internal or external practicum)
12 credits in one of Drama, Fine Arts, Music, History or Film/ Media Studies, as specified by each program:

Drama: DRA 101, 102, 201 + one other course in dramatic literature

Fine Arts: 12 credits taken from list supplied
Music: MUS $130+9$ credits in Music Literature and Performance, in consultation with the Chair

Film/Media: ENG 102, DRA/ENG 170 + two of ENG 279, ENG 280, ENG 281 and ENG 259

Public History: HIS 109, 200, 240 + one of HIS 227, 229, 239, 289, 298

## Classical Studies

## Faculty

Jenn Cianca,
B.A. (Bishop's), M.A., Ph.D. (Toronto); Associate Professor

Catherine Tracy,
B.A. (Dalhousie, University of New Brunswick), M.A. (Dalhousie),

Ph.D. (Southern California), Associate Professor
Chair of the Department

## Program Overview

Socrates; Julius Caesar; Gladiators; The Olympic Games; Cleopatra; The Sphinx...

A student in the Classical Studies (a.k.a. Classics) department will enter the world of the ancient Mediterranean. We focus especially on the civilizations of Greece and Rome and offer courses in their literature, mythology, history, culture, art, and archaeology. Students have the opportunity to learn Latin (the language of Roman emperors and Christian popes) and Greek (the language of philosophy, tragedy, and the New Testament). The courses offered by the faculty of the Classics department are also supplemented by related courses in the departments of Philosophy, Religion, and in the Liberal Arts program. Many of our classes do not have prerequisites and thus we welcome students from all disciplines. In this regard most of the 200 -level courses are suitable for students in their first year. All you need are interest and enthusiasm to begin your journey into the Classical past.

## Programs

## Honours in Classical Studies (60 credits)

HONCLA

## Requirements:

An overall average of $70 \%$ or more in courses counting towards the honours.
A minimum of 24 credits in Latin and Greek.
A minimum of two third-year courses.
CLA 400 and CLA 401 (thesis)
The remaining credits may be taken in any combination of CLA, GRE, or LAT courses.

## Major in Classical Studies (42 credits)

MAJCLA

## Requirements:

Majors must take CLA 100 or CLA 101 in their first or second year, as well as a minimum of two third-year courses during their degree. Six credits in LAT or GRE are strongly encouraged. The remaining credits may be taken in any combination of CLA, GRE, or LAT courses.

## Minor in Greek and Roman Civilization ( 24 credits) MINCLA

## Requirements:

Credits in CLA, GRE, and/or LAT count towards the Minor in Greek and Roman Civilization.

## Minor in Classical Languages (24 credits)

## Requirements:

Credits in at least two of the following ancient languages: Hebrew, Greek, or Latin. At least 12 credits in either Greek or Latin.

## Minor in Classical Art and Archaeology (24 credits)

## Requirements:

One of: CLA 120, CLA 238, and CLA 240; Four of: CLA 110, CLA 205, CLA 206, CLA 207, CLA 208; One of: CLA 309, CLA 328, CLA 335, CLA 350, CLA 365, CLA 366; Any two other CLA, LAT, or GRE courses.

## List of Courses

## CLA 100 Food, Community and <br> Culture in the Greek and Roman World

The aim of this course is to introduce students to the cultures of ancient Greece and Rome. We will explore language, literature, art, religion, myth, history, politics, geography, science, and technology as we investigate the many aspects of food production and consumption, from cannibalism in Greek tragedy to the best way to stuff a dormouse. At the end of the course, we will cook a meal and celebrate the Classical world.

## CLA 101 Travellers, Tourists, and Foreign Wars:

Getting About in the Ancient Mediterranean World 3-3-0
Odysseus' epic voyage home from the Trojan War; the Greek colonization of brave new worlds; the spice trade routes; the long marches of Roman soldiers; ancient maps for adventurous tourists: these and other Classical examples of travel will introduce students to the fascinating world of the ancient Mediterranean. At the end of the course, we will hold a colourful and flavourful Classical Food Fair to celebrate ancient exotic vacation destinations.
CLA 102 Ancient Greece: History and Culture
3-3-0
The alphabet; the Olympic Games; philosophy; democracy; tragedy and comedy; history: was there anything the Greeks didn't invent? This course introduces students to the cultural, intellectual, political and literary achievements of the ancient Greeks.
Not open to students with credit in CLA 127 and/or CLA 210
CLA 109 /

## REL 109 Egypt and Mesopotamia:

From the Rise of Civilization to the Persian Conquest 3-3-0
The geographical region of Mesopotamia (modern Iraq) saw the development of the first complex urban society more than 5,000 years ago. At the same time, a second complex society, Egypt, was forming along the banks of the Nile River in Africa. Employing a mixture of historical texts and archaeological research, this course will give an overview of ancient Egypt and Mesopotamia covering the time from the Neolithic Period (generally said to have begun ca. 10,000 BCE) to the Persian conquest in the sixth century BCE. The course will begin with the development of seed agriculture and animal domestication, followed by the formation of early complex societies (civilizations), including the formation of the first cities, the first writing systems, and major building projects in the form of temples and pyramids. In addition to examining the lives and the political careers of important historical characters, the course will also explore the religious beliefs and the techniques of astronomy, medicine and warfare prevalent at the time.

## CLA 110 The Art and Archaeology of Ancient Egypt

A survey of the art and architecture of ancient Egypt, from the Pyramids to the Valley of the Kings, and an introduction to the archaeological discoveries made in Egypt in the twentieth and twenty-first centuries.
CLA 112 /
REL 120 Ancient Greek Mythology
3-3-0
The origin and development of Greek mythology, and the importance of myths in understanding ancient literature and religion: theories of myth, cult and ritual, mystery religions, the epic tradition. Greek sources are read in translation.
CLA 113 Classical Mythology: The Greek Influence on Rome 3-3-0 Myth and tragedy, myth and history, lyric poetry, Roman mythology. Greek and Latin sources are read in translation.

CLA 120 An Introduction to Classical Archaeology 3-3-0
A survey of the history of classical archaeology from the discoveries of Schliemann at Troy and Evans at the Palace of Knossos to a study of the techniques of modern field archaeology.
CLA 130 Sports and Games in the Ancient World 3-3-0
The Olympic Games in ancient Greece and the chariot races in Rome's Circus Maximus allowed athletes to compete and spectators to enjoy themselves under the hot Mediterranean sun. Athletic training was useful in preparing men for war, but women also trained and competed in sports events. People of the ancient past liked to amuse themselves just as we do today, but dramatic festivals and even gladiatorial combat had religious origins. In this course we will use the sporting and recreational activities of the Greeks and Romans and their Mediterranean neighbours as a lens to reveal aspects of these ancient societies.

CLA 150 The Ancient World in Film and Television
3-3-0
Movies and television have shaped our ideas about Greek and Roman myth, history and civilization. In this course we will study "sword and sandal" films and television as popular art forms and their relation to the ancient literary and visual sources.
CLA 160 Rome: The Republic 3-3-0
The social, political and cultural events of the Roman Republic, including the exploits of Hannibal, Julius Caesar, Cleopatra, and others.

## CLA $170 \quad$ Greek and Latin Terminology for Medicine

 and the Life Sciences3-3-0
This course teaches the Latin and Greek roots of scientific terminology in order to help students understand the technical vocabulary of medicine, biology, and other life sciences. Better understanding of the scientific terms also improves students ability to communicate with specialists and with the general public.
CLA 201 /
HIS 201
Ancient Slavery and its Legacy
3-3-0
Slavery was ubiquitous in ancient Greece and Rome due largely to frequent warfare. This course will examine the ways that the institution of slavery influenced societal and class structures, the economies, and the moral attitudes of ancient Greek and Roman societies. We will also examine how ancient slavery influenced modern attitudes around slavery, and the differences between ancient and modern slavery.
Open to first-year students.
CLA 202 The Classical Influence on Shakespeare 3-3-0 Despite Ben Jonson's claim that Shakespeare had "small Latine and lesse Greek" the bard had a strong background in the Classics. The Greek biographer Plutarch, the Roman poet Ovid, and the Roman comic playwright Plautus are among the Classical sources that profoundly influenced his plays and poems. Students will read select works of Shakespeare alongside their Classical influences (read in English translation).
Open to first-year students.
CLA 204 /
REL 204 Women in Religion
3-3-0
An investigation of the religious lives of early pagan, Jewish, and Christian women in the context of the Greco-Roman world. Literary and epigraphical sources from the fourth century BCE to the third century CE are analyzed in order to determine women's roles, rites and practices, with special attention to constructions of gender in the Graeco-Roman world.
Open to first-year students.

## CLA 205 Greek Art and Architecture <br> 3-3-0

Western art and architecture begin in ancient Greece. From miniature vases to monumental statues of ivory and gold, we will explore the creations of potters and painters, sculptors and architects, and study Greek art from the Bronze age to the time of Alexander the Great.
Open to first-year students.

## CLA 206

REL 203
This course examines the ways in which the Christians adapted elements from Greek, Roman, and Near Eastern art and architecture to their religious beliefs and requirements and also studies the development of this new Christian art in the Byzantine Empire. Major topics include: Catacomb art, early Christian and Byzantine architecture, mosaic and painting, manuscript illumination, textiles and decorative arts.
Open to first-year students.
CLA 207 Early Roman Art
3-3-0
In this course we will begin with a study of the colourful wall paintings of Etruscan tombs, where men and women drink and dance, and panthers and lions guard the dead. Once rulers of Rome, the Etruscans and their art declined as the Roman Republic grew powerful. We will examine how the Romans developed an innovative art and architecture which expressed the values of their society.
Open to first-year students.
CLA 208 Art and Architecture of Imperial Rome
3-3-0
A survey of Roman art and architecture from the first century CE to the fourth century CE The course examines the use of art as propaganda and the tension between tradition and innovation in Roman Art.
Open to first-year students.

CLA 217 The Ancient Epic
3-3-0
This course introduces students to the best epic poetry of the Greeks and Romans (poetry will be read in English translation). Sources to be studied may include the Iliad, Odyssey, Argonautica, Aeneid, and Metamorphoses.
Open to first-year students.
CLA 219 Origin and Development of the Greek Tragic Theatre 3-3-0 Myth and tragedy in the Greek theatre, using representative tragedies of Aeschylus and Sophocles (in translation).
Open to first-year students.

## CLA 223 /

POL 223 Democracy in the Ancient World 3-3-0
The idea of government by the people is highly valued today, but it was first given the name of "demokratia" (democracy) in ancient Greece. The most famous example in Greece is Classical Athens, but democratic elements appeared in many other ancient states, including republican Rome. The course will examine popular participation in Athens, Rome, and various other ancient societies: how it began, who could participate, who was left out, and what ancient writers thought of it. Open to first-year students.
CLA 229 War and Society in the Greek and Roman World 3-3-0 War, omnipresent in the ancient Mediterranean, will be used to reveal socioeconomic, religious, and cultural aspects of ancient Greek and Roman societies. Was war waged for economic motives (plunder, booty, supply in slaves, exploitation of local resources...)? Were there sacred wars? How did war affect art and architecture? How did encounters with other societies change the perception of war and bring about an evolution in warfare? How was war declared? What is known of diplomacy, peace-talks and treaties between allies or former enemies? This course is not about wars but about the impacts war had on society and how society changed the ways to wage war.
Open to first-year students.

## CLA 236 /

REL 236 Death and Dying in the Ancient World 3-3-0
This course explores the myths, rituals and beliefs associated with death and dying in antiquity. Topics to be covered include myths associated with the afterlife; books of the dead; magic and death rituals; and understandings of heaven, hell and judgement.
Prerequisite: REL 100 or REL 101 or permission of instructor
Open to first-year students.

## CLA 238 / FIH 238 /

REL 238 Greece, Land of the Gods $\quad \mathbf{6 - 6 - 0}$
This six-credit course examines the sacred art and architecture of ancient Greece from Mycenae to Byzantium on site in Greece, and is offered in the Spring semester. After preliminary lectures on campus, students will spend two weeks traveling to the major sacred sites of mainland Greece.
American students on US Federal aid cannot enrol in this course for credit.
Open to first-year students. Instructor's permission required.
CLA 239 Exploring Ancient Egypt $\quad$ 6-3-0
The allure of ancient Egypt has gripped outsiders since the Greek historian Herodotus travelled to Egypt and wrote about their strange and impressive customs. This course proposes that the best way to understand the ancient Egyptians is by learning as you travel. Major themes of Egyptian civilization will be explored while visiting some of the most significant archaeological sites such as the cemetery at Saqqara, Giza, Karnak Temple and the Valley of the Kings.
American students on US Federal aid cannot enrol in this course for credit.
Open to first-year students. Instructor's permission required.
CLA 240 Signs of the Past:
Archaeological Interpretation
3-3-0
A continuation of CLA 120 with the emphasis on the techniques and methodology of archaeology. Topics include the use of artifacts in creating chronologies and theories, preservation and conservation of sites, ethical questions and problems relating to archaeological excavation.
Open to first-year students.
CLA 250 Sex and Gender in the Ancient World
3-3-0
This course will look at the ways that women and men of the ancient Mediterranean world interacted with each other, and at how ideas about sexuality and gender roles affected people's lives. Topics to be examined will include marriage and divorce, conception and contraception, masculine and feminine ideals, gender and the law, sex and social class, the effects of gender on religious expression, homosexuality, private versus public life, what ancient doctors knew about sex, how to use magic to get a lover, and deviations from ancient sexual and gender norms.
Open to first-year students.

CLA 261 Rome: The Emperors 3-3-0
The social, political and cultural events under the emperors, featuring the Roman army, gladiatorial combat, religion, and other topics.
Open to first-year students.

## CLA 271 /

PHI 271 Philosophy of Socrates \& Plato $\quad$ 3-3-0 A study of the character and teaching of Socrates as portrayed in Plato's early and middle dialogues. Emphasis will be on theory of education.
CLA 272 /
PHI 272 Philosophy of Aristotle
3-3-0
A study of selected works of Aristotle with special emphasis on logic, metaphysics, and the concept of substance.
CLA 280 /
REL 280 Roman Religion
This course examines the religion of the ancient Roman people, following the traditions and changes from the 8th century BCE to the Imperial period. Roman religion was very different from the monotheistic religions with which many of us are familiar today, but it was also significantly different from the mythology of the ancient Greeks, despite the Romans' willingness to absorb and adapt the Greek myths. Topics to be studied in this course will include the Roman concept of divinity, beliefs about the dead, religious and cult ritual, senatorial and imperial control of religion, emperor worship, divination and prophecy, festivals, and Roman responses to the introduction of foreign religions.
Open to first-year students
CLA 309 Study Abroad in the Mediterranean
6-6-0
While studying abroad, students will examine the societies that occupied the ancient Mediterranean world. Through visits to archaeological sites, museums, and/or work on archaeological field projects, they will study the societies' religious and mortuary practices, economy, transportation routes, politics, and public and private life. Moreover, students will explore how these patterns evolved throughout time in response to landscape and environmental change that impacted movement, access, settlement occupation, and land use.
American students on US Federal aid cannot enrol in this course for credit.
Instructor's permission required
CLA 320 The Roman Family
3-3-0
This seminar course examines the characteristics and influences of the Roman "familia" (which included not only the extended family but also slaves and freed slaves) within Republican and Imperial Roman society. We will read primary sources (in translation) as well as modern scholarship.
Prerequisite: a previous Classics course or permission of the instructor
CLA 321 Laws and Outlaws in Ancient Rome 3-3-0
This seminar course will focus on Roman law and order, and on those who broke the law or challenged Roman hegemony. A series of case studies will cover some of the well-known villains of Roman history, as well as those who perpetrated private crimes. We will study Rome's response to threats to public order, how the city of Rome was policed, and which elements of Roman society were most likely to become victims of crime. Readings will include ancient sources in translation (legal, literary, and epigraphical texts) as well as modern scholarship.
Prerequisite: At least two Classics courses or permission of the instructor.
CLA 325 The Classical Tradition
3-3-0
The influence of Greek and Roman myths, literature, and art on western culture has been powerful and enduring. This course will examine how Greek and Roman traditions have been reflected in Western culture from the Medieval period to the 21st century. Readings are in English translation.
Prerequisites: At least one first-year Classics and one second-year Classics course, or permission from instructor
CLA 332 /
REL 332
Magic and Divination in the Ancient Near East
3-3-0
Since the 19th century, magic and divination have been subjects of great scholarly interest. This seminar course will examine how these phenomena were manifested in the region of what is today called the Middle East. We will also look at the supposed polemic against magic and divination In the Hebrew Bible (Old Testament), where calling someone a magician or diviner was a strategy for social control and definition, serving as an element in the construction of views about legitimate and illegitimate religious authority.

CLA 335 Sacred Space in the Ancient World
3-3-0
How did the ancients experience their surroundings? How did their conceptions of space and place affect their relationships with their deities, their ancestors, and each other? From lofty temples to humble shrines, sacred mountains to grottoes, we will explore the intimate connection between sacred places and the development of ancient identity. Archaeological and literary data, as well as modern theories of space and place, will be examined.
Prerequisites: At least two Classics courses or permission of the instructor.
CLA 336 Barbarians of the Roman World
3-3-0
Rome was a little village that began conquering its neighbours until it ended up dominating a vast empire. This seminar course will examine the peoples who fought against Rome: how some resisted, how others submitted and collaborated with the Romans, and how Romans viewed the non-Romans that lived within and outside their empire.
Prerequisite: At least two Classics courses or permission of the instructor
CLA 350/
REL 350 The Goddess: History, Cult and Myth 3-3-0
From Diana's bow to Athena's shield, from the fearsome wail of the Erinyes to the dulcet tones of the Muses, the sacred feminine in all its manifestations has fueled the imagination. How we in the modern world perceive the female divine, however, also reflects our own changing attitudes towards women. In this seminar course, we will examine the sacred feminine in art, archaeology, and literature, from Paleolithic Europe to contemporary America, with a view to understanding the construction of tropes of femininity both in ancient cultures and our own. Topics may include Near Eastern and Graeco-Roman goddesses, Hindu goddesses, gendered archaeology, the virgin Mary, modern goddess movements, and more!
Prerequisite: At least two Classics courses or permission of the instructor.
CLA 365 Topics in Classical Art and Archaeology 3-3-0
This seminar course will explore topics and problems in Classical Art and Archaeology. Possible topics include: Roman provincial art and archaeology; Greek vase painting; gender and sexuality in ancient art; the archaeology of Periclean Athens; Agean Bronze Age archaeology; Classical relief sculpture.
Prerequisite: At least one Classics course or permission of the instructor.
CLA $380 \quad$ Topics in Greek and Roman Drama 3-3-0
This seminar course will concentrate on the nature of ancient drama, and will involve discussion of a selection of tragedies and/or comedies from the ancient Greek and Roman world.

CLA 400 Honours Thesis Preparation
3-3-0
The student will work with faculty advisors and complete a proposal, outline and bibliography and give an oral research progress report. Students must achieve a $70 \%$ or higher in order to register in CLA 401.
CLA 401 Honours Thesis 3-3-0
The student will continue to work with faculty advisors, complete a written thesis, and give a public presentation of the year's research.
Prerequisite: CLA 400

## Independent Studies

The department offers opportunities to study independently for senior students who wish to pursue in-depth exploration of their research interests, under the direction of faculty members. Independent studies are available in all areas covered by the department, including upper-level or advanced Classical language study (Greek and Latin), history, and archaeology. Students wishing to undertake an independent study must secure permission of the instructor.

## Classical Languages

GRE 101F Beginners' Greek 6-3-0
Introducing the ancient Greek language to the beginning student.
GRE 200 Intensive Intermediate Greek
6-6-0
This intensive 6-credit-1-semester course ( 6 hours/week), may be offered either Fall or Winter instead of GRE 201 and GRE 202, with the mutual agreement of students and professor. The course will work on grammar, vocabulary and reading comprehension of ancient Greek.
Not open to students with credit in GRE 201 and/or GRE 202.
Prerequisite: GRE 101
GRE 201 Intermediate Greek I
Selections from Greek authors.
Not open to students with credit in GRE 200, except to replace the earlier grade. Prerequisite: GRE 101
GRE 202 Intermediate Greek II 3-3-0
Selections from Greek authors.
Not open to students with credit in GRE 200, except to replace the earlier grade. Prerequisite: GRE 101 and GRE 201
GRE 300 Intensive Advanced Greek
6-6-0
This intensive 6-credit 1 -semester course ( 6 hours/week), may be offered either Fall or Winter instead of GRE 301 and GRE 302, with the mutual agreement of students and professor. Students will read selections of Greek authors while improving grammar and vocabulary.
Not open to students with credit in GRE 301 and/or GRE 302.
Prerequisite: two years of Ancient Greek
GRE 301 Advanced Greek I
Selections from Greek authors.
Not open to students with credit in GRE 300 except to replace the earlier grade. Prerequisite: two years of Ancient Greek
GRE 302 Advanced Greek II
Selections from Greek authors.
Not open to students with credit in GRE 300 except to replace the earlier grade. Prerequisite: two years of Ancient Greek
GRE 401 Advanced Greek III
Selections from Greek authors.
Prerequisite: three years of Ancient Greek
GRE 402 Advanced Greek IV
Selections from Greek authors.
LAT 101F Beginners' Latin I 6-3-0
Introducing the Latin language for the beginning student. The course covers basic Latin grammar, Latin vocabulary, and English etymology (the Latin origins for English words), and provides sufficient background to translate simplified Latin passages.
LAT 200 Intensive Intermediate Latin $\quad$ 6-6-0
This intensive 6-credit 1-semester course ( 6 hours/week), maybe offered either Fall or Winter instead of LAT 201 and LAT 202, with the mutual agreement of students and professor. The course will work on grammar, vocabulary and reading comprehension of Latin.
Not open to students with credit in LAT 201 and/or LAT 202.
Prerequisite: LAT 101
LAT 201 Intermediate Latin I
3-3-0
Selections from Roman authors
Not open to students with credit in LAT 200, except to replace the earlier grades. Prerequisite: LAT 101
LAT 202 Intermediate Latin II
3-3-0
Selections from Roman authors
Not open to students with credit in LAT 200, except to replace the earlier grades. Prerequisite: LAT 101 and LAT 201

LAT 300 Intensive Advanced Latin
6-6-0
This intensive 6 -credit 1 -semester course ( 6 hours/week), may be offered either Fall or Winter instead of LAT 301 and LAT 302, with the mutual agreement of students and professor. Students will read selections of Roman authors while improving grammar and vocabulary.
Not open to students with credit in LAT 301 and/or LAT 302, except to replace the earlier grades.
Prerequisite: two years of Latin.

LAT 301 Advanced Latin I
Selections from Roman authors
Not open to students with credit in LAT 300, except to replace the earlier grade. Prerequisite: two years of Latin
LAT 302 Advanced Latin II
3-3-0
Selections from Roman authors
Not open to students with credit in LAT 300, except to replace the earlier grade. Prerequisite: two years of Latin
LAT 401 Advanced Latin III
3-3-0
Selections from Roman authors.
Prerequisite: three years of Latin
LAT 402 Advanced Latin IV
3-3-0
Selections from Roman authors.
Prerequisite: three years of Latin

## Independent Studies in

Classical Languages
The department wants to facilitate language study, and therefore offers independent study courses in Greek and Latin for dedicated students who are unable to take the regularly scheduled language classes. Students wishing to undertake an independent study in Greek or Latin must secure permission of the instructor.

## Cognate Courses

The following courses in Classical Studies are recognized as cognate in other departments:
CLA 102, CLA 120, CLA 160, CLA 223, CLA 261 in History
CLA 112, CLA 113, CLA 219, CLA 220 in English
CLA 219, CLA 220 in Drama
CLA120, CLA 110, CLA205, CLA206, CLA207, CLA208 in Fine Arts
CLA 250, CLA 350 in Gender, Diversity, and Equity Studies
CLA 110, CLA 113 in Religion
CLA 321 in Pre-Law
The following course is recognized as cognate in Classical Studies: LIB 303

## Drama

## Faculty

## Rebecca Harries,

B.A. (Bishop's), M.A., Ph.D. (Toronto); Associate Professor

## George Rideout,

B.A. (Toronto), M.A. (Simon Fraser); Professor
Chair of the Department

## Program Overview

The Department of Drama offers a program balanced between practical theatre and academic study of dramatic literature and theatre history. Our aim is to permit undergraduates to explore the subject as a liberal arts discipline and prepare them for graduate, professional, and conservatory schools.

The Department offers Major and Honours programs designed to expose students to all facets of theatre practice and study as well as provide them with the flexibility to orient their program towards a particular field of study: Dramatic Literature and Theatre History, Performance (acting, directing, and playwriting), and Production (technical, stage management, and design).

By the end of their final year, students will have had ample opportunity to work on the Department's season of productions in the Studio Theatre and Centennial Theatre (including at least three productions in the Studio, one mainstage production in Centennial during the second semester, the New Plays Festival and the student produced Theatre Activ). A number of students will also have had the opportunity to become Theatre Assistants for Centennial Theatre, receive an honorarium, and be responsible for the proper running of the facilities' operations.

## Honours in Drama

HONDRA

## Without Thesis (60 credits*) <br> Courses as required for a Drama major: .............. 48 credits <br> Further courses in Drama (excluding independent studies): ...................... 12 credits

## With Thesis (66 credits*)

Students must obtain a $75 \%$ average, as calculated from the last 60 credits in the Honour discipline (including cognates), in order to graduate with an Honours degree in Drama.

Students wishing to enrol in DRA 450 (Honours Thesis) must have $75 \%$ cumulative average when registering in FALL semester, and $75 \%$ average on required courses in thesis area of interest.

Courses as required for Drama Major: $\qquad$ 48 credits
Further courses in Drama (excluding independent studies): ..................... 12 credits
DRA 450 Honours Thesis: ...................................... 6 credits
*All Honours students must complete both DRA 331 and DRA 332.
Students must also complete any Divisional Requirements of the Division of Humanities.

## Major in Drama (48 credits) MAJDRA

In their first two years, all drama Majors must adhere to the following required courses in their program:

## 1st Year (12 credits)

Fall: (DRA 101) Introduction to Technical Theatre, (DRA 102) Introduction to Theatre, (DRA 131) Acting I
Winter: (DRA 110) Introduction to Theatre Part II
2nd Year (6 credits)
Fall: (DRA 222) Introduction to Shakespeare
Winter: (DRA 201) Contemporary Canadian Theatre
After the second year the following seminar and production courses are required for all drama Majors (9 credits):
Seminar Courses: Two of DRA 311, DRA 312, DRA 313, DRA 391, DRA 392, DRA 393

Production Courses: One of (DRA 331) Production I, (DRA 332) Production II
The remaining eighteen credits required for the Major in Drama may be taken at anytime during the student's tenure at Bishop's provided that he or she has fulfilled the stated prerequisites for the individual course.

Required Courses (12 credits)
One of (DRA 211) Ritual and Theatre, (DRA 212) Theatre and the State and (DRA 230) Women and Performance
One of (DRA 202) Contemporary American Drama, (DRA 203) Contemporary European Drama
One of (DRA 170 / ENG 170) Introduction to Film, (DRA 271) Modern Drama, (DRA 273) Women Dramatists [or a cognate course]
One of (DRA 246) Introduction to Directing, DRA 281 Playwriting I

## Drama Electives (9 credits)

Three of all other drama courses (except independent studies)
Students must also complete any Divisional Requirements of the Division of Humanities.

## Minor in Drama (24 credits)

## Required courses:

DRA 101 Introduction to Technical Theatre
DRA 102 Introduction to Theatre
DRA 131 Acting I
DRA 201 Contemporary Canadian Drama
DRA 222 Introduction to Shakespeare

## Concentration in Musical Theatre (30 credits)

The departments of Music and Drama at Bishop's University are pleased to offer a new 30-credit concentration in Music Theatre as a supplement to the Major in Music or Drama. This is a program unique among Quebec universities. Students entering the Music program will be required to complete an additional 12 credits or cognates in Drama and vice versa. The successful student with a Drama or Music Major plus the Concentration in Music Theatre will earn a total of:

## 30 credits (Concentration) +48 credits (Major) +12 credits (corequisites/cognates) $=90$ credits.

## Courses

MTH 100 - Intro. To Dance \& Movement I........... 3 credits
Plus 2 of:
MTH 200 - Dance II: Ballet ..................................... 3 credits
MTH 201 - Dance III: Tap................................... 3 credits
MTH 202 - Dance IV: Contemporary ..................... 3 credits
MTH 203 - Dance V: Jazz ................................... 3 credits

## Other required courses:

MTH 110 - Intro. to Acting with Song I ................ 3 credits
MTH 210 - Acting with Song II: Operetta ............ 3 credits
MTH 211 - Acting with Song III: The Golden Age.... 3 credits
MTH 212 - Acting with Song IV: Modern ............. 3 credits
MTH 151 - Hist. of Musical Theatre to 1975......... 3 credits
MTH 152 - Hist. of Musical Theatre 1975-Present.. 3 credits
MTH 300 - Musical Production I.......................... 3 credits
OR
MTH 301 - Musical Production II......................... 3 credits
Total: 30 credits

## Additioanl Elective Courses in Musical Theatre (offered on rotation):

MTH 400 - Independent Study I $\qquad$ 3 credits
MTH 401 - Independent Study II 3 credits
MTH 410 - Song Writing for Musical Theatre. .3 credits

## List of Courses

MTH 100 Intro. to Dance \& Movement I
3-3-0
Students learn fundamental techniques commonly applied to all genres of dance including isolation exercises, posture and alignment study as well as dynamics, rhythm and interpretation.
MTH 200 Dance II: Ballet 3-3-0
Students learn basic techniques commonly applied to the genre including barre, floor, and centre work as well as the concepts of rhythm, dynamics, space and balance. Elements of good posture, body alignment, turnout, pointing the toe, etc., are interwoven with the French terminology associated with specific ballet moves. Prerequisite MTH 100 or consent of instructor.
MTH 201 Dance III: Tap 3-3-0
Students are presented with rigorous and repetitive series of isolation exercises series for the ankle and foot that develop the basic steps associated within the genre of tap. Development of a clear sense of rhythm and syncopation also a focus of the course.
Prerequisite MTH 100 or consent of instructor.
MTH 202 Dance IV: Contemporary 3-3-0
Students focus on rhythm and various types of movement, communication and interpretation, and the effective use of a performing space in both solo, duet and small ensemble settings.
Prerequisite MTH 100 or consent of instructor.
MTH 203 Dance V: Jazz
3-3-0
Students are presented with rigorous exercises to develop the basic moves associated within the 6 genres of jazz - Classic, Street, Afro, Commercial, Latin and Contemporary, Development of a clear sense of rhythm and syncopation also a focus of the course.
Prerequisite MTH 100 or consent of instructor.
MTH 110 Intro. to Acting with Song I
3-3-0
This course explores the intimate relationship between acting and music and will be centered around the analysis, discussion and performance of short scenes taken from the standard repertory.
Prerequisites: MUS 172, MUS 120, MUS 130, DRA 131, and/or consent of instructor(s).
MTH 210 Acting with Song II: Operetta 3-3-0
A continuation of MTH 110, this course explores the intimate relationship between acting and music and will be centered around the analysis, discussion and performance of short scenes taken specifically from the operetta repertoire.
Prerequisite MTH 110.
MTH 211 Acting with Song III: The Golden Age 3-3-0
A continuation of MTH 110, this course explores the intimate relationship between acting and music and will be centered around the analysis, discussion and performance of short scenes taken specifically from the Broadway repertoire.
Prerequisite MTH 110.

MTH 212 Acting with Song IV: Modern
3-3-0
A continuation of MTH 110, this course explores the intimate relationship between acting and music and will be centered around the analysis, discussion and performance of short scenes taken specifically from the contemporary repertoire. Prerequisite MTH 110.

## MTH $300 \quad$ Musical Production I <br> 3-3-0

This course prepares students to mount a public presentation of a full-scale musical theatre production taken from the standard repertory as well as new and hybrid musicals. Successful audition required.

MTH 301 Musical Production II
3-3-0
This course prepares students to mount a public presentation of a full-scale musical theatre production taken from the standard repertory as well as new and hybrid musicals. Successful audition required.

MTH 400 Independent Study I
3-3-0
This upper-level course allows the advanced student the opportunity to develop projects under faculty supervision specific to their interest and career path.
MTH 401 Independent Study II $\quad \mathbf{3 - 3 - 0}$
This upper-level course allows the advanced student the opportunity to develop projects under faculty supervision specific to their interest and career path.
MTH 151 History of Music Theatre to 1975 (formerly MUS 109 Music and Theatre)

3-3-0
This course will cover the field of popular musical theatre from its origins in 19thcentury comic opera and operetta; and then Broadway musicals up to ca. 1975. Kern, Rogers and Hart/Hammerstein, Lerner and Loewe; the more sophisticated works of Bernstein. Not open to students who have successfully completed MUS 109.

MTH 152 History of Music Theatre: 1975 - present
3-3-0
This course will cover the field of popular musical theatre from its origins in 19thcentury comic opera and operetta; and then Broadway musicals up to ca. 1975. Kern, Rogers and Hart/Hammerstein, Lerner and Loewe; the more sophisticated works of Bernstein. Not open to students who have successfully completed MUS 109.

MTH $410 \quad$ Song Writing for Musical Theatre
3-3-0
Students will analyze the standard musical theatre repertory, examining song forms, the incorporation of characters, time, place, mood, spoken dialogue, subtext etc. Students, composers and/or lyricists will collaborate to adapt dramatic scenes into songs for the musical stage. Works-in-progress will be collectively critiqued followed by performances of original works in class.
Prerequisite MUS 120 and MUS 130, or consent of instructor.

## Co-requisites / Cognate Courses:

In an effort to balance the skill sets between Music and Drama, Drama Majors entering the concentration must also complete the following Music courses ( 12 credits):

| MUS 172, 173 \& 270 | . 5 credits |
| :---: | :---: |
| MUS 181, 281 | . 2 credits |
| MUS I20. | . 2 credits |
| MUS 130 | . 3 credits |

In an effort to balance the skill sets between Music and Drama, Music Majors entering the concentration must also complete the following Drama courses (12 credits):

DRA 101................................................................ 3 credits
DRA 102 or DRA 110 ..............................................................................................................
DRA 131 \& 132 .........

## List of Courses

## Dramatic Literature and Theatre History

These courses are primarily concerned with the study of drama as literature or with the study of theatre history. Some of these courses may be used to satisfy the degree requirements of the Department of English.

All courses are open to non-Drama students.
DRA 102 Introduction to Theatre:
Theatre and Dramatic Literature Before 1800 3-3-0
This course provides students with an introduction to theatre history and to some of the important plays of various historical epochs. One of the focuses of the course is the socially created meaning of theatre, including interaction between audience and stage, the role of the theatre professional in society and the connections between theatre and political and religious institutions. The course will also introduce various theatrical styles. The dramas themselves are interpreted as blueprints for performance, not just as examples of literature.

## DRA 110 Introduction to Theatre Part II:

Theatre and Dramatic Literature After 1800 3-3-0
This course provides students with an introduction to the theatre history of the modern age and to some of the important plays of this era. The course will also introduce various theatrical styles, such as epic theatre, theatre of the absurd and naturalist theatre. The dramas themselves will be interpreted as blueprints for performance, not just as examples of literature. Among the playwrights included in the course are Henrik Ibsen, Anton Chekhov, Luigi Pirandello, Samuel Beckett, Caryl Churchill and Heiner Müller.
DRA 201 Contemporary Canadian Drama
3-3-0
Canadian drama from 1967 on, including the plays of Tremblay, French, Walker, Thompson and others.
DRA 202 Contemporary American Drama 3-3-0
American playwrights and theatrical movements of the post-Viet Nam war period. Playwrights include Shepherd, Mamet, Rabe, Wasserstein.
DRA 203 Contemporary European Drama 3-3-0
European drama since 1960 through examination of works of influential playwrights and dramatic theorists.
DRA 211 Ritual and Theatre
3-3-0
There is a persistent and complex relationship between theatre, the sacred and magic. This course explores this relationship through the study of performances/ performers and texts from a spectrum of cultures and times. Students will study theories including Aristotle, Victor Turner and Eugenio Barba. Other Texts include Aoi no Uye, A Winter's Tale and Death and The King's Horseman.
DRA 212 Theatre and the State 3-3-0
The political theatre in both senses of the phrase: what is the relationship between the stage of state and the theatrical stage? What legislation exists to restrict public performances and representations? How have performances in a variety of cultures and historical periods variously challenged and re-instated these cultural models?
DRA 222 Introduction to Shakespeare $\quad \mathbf{3 - 3 - 0}$
Close study of four to six plays from the following: Richard III, Macbeth, A Midsummer Night's Dream, Henry IV pt. 1, Hamlet, Twelfth Night, Othello, The Tempest.
WOM 230 /
DRA 230 Women in Performance 3-3-0
An analysis of the role women have played in the performing arts as practitioners, creators, producers and spectators with emphasis on the modern era and western cultures. The course takes a cultural studies approach to the subject and includes readings by feminist theorists, sociologists and cultural historians.
DRA 271 Modern Drama
3-3-0
The major European drama and movements of the period from 1875-1939, including the works of Ibsen, Strindberg, Chekhov, among others.
DRA 273 Women Dramatists 3-3-0
Discussion and analysis of a number of plays written by women. The plays will be studied in their cultural context and from the perspective of contemporary feminist theory.

## Interest Courses and Cognate Courses

## DRA/ ENG 170 Introduction to Film

3-3-0
The creation of films and what happens when we view a film are complex and fascinating phenomena. The course provides a basic understanding of the vocabulary of and approaches to narrative cinema. Each week's subject of study is applied to a number of specific films.
CLA 219 The Greek Tragic Theatre I 3-3-0
Myth and tragedy, origin and development of the Greek theatre; representative tragedies of Aeschylus and Sophocles, in translation.

## CLA 220 The Greek Tragic Theatre II 3-3-0 <br> Study of the later works of Sophocles and representative works of Euripides. (In translation)

ENG 334 Restoration and Eighteenth-Century Drama 3-3-0
This course covers a wide range of English drama from Etherege through Behn to Sheridan to indicate both the shifting social tastes and the permissiveness of the theatre.

FRA 283 Théâtre québécois 3-3-0
Évolution de la production dramatique au Québec depuis Marcel Dubé. Le théâtre de revendication sociale et politique, les happenings et le théâtre expérimental, le théâtre d'improvisation, le genre comique et la recherche contemporaine de nouvelles formes théâtrales. Dramaturges étudiés: Dubé, Tremblay, Meunier, Lepage, Gilles Maheux et Carbone 14, etc.
FRA 261 Le Théâtre du XVII ${ }^{e}$ au XIX ${ }^{e}$ siècle
Lecture et commentaire de pièces significatives du théâtre du XVII ${ }^{e}$, XVIII ${ }^{e}$ et XIX $^{\mathrm{e}}$ siècles. L'étude des divers genres (comédie, tragédie, drame, vaudeville) et des diverses esthétiques (classique, romantique) permettra de se familiariser avec les grandes tendances traditionnelles du théâtre.

## Performance and Production

These courses emphasize the performance and production aspects of theatre. DRA 101 and DRA 131 are required courses for Drama students. Most courses are open to non-Drama students but enrolment may be limited.

## Acting

DRA 131
Acting I
3-3-0
Acting One establishes a physical and vocal warm-up routine, develops public speaking skills, and explores the fundamentals of acting for the stage. Project work is based on individual presentations.

## DRA 132 Acting II

3-3-0
Acting Two continues the focus on voice and movement. Students will begin character work, research, and scene study. Projects are partner based.
Prerequisite: DRA 131
DRA 136 / FRA 136 Techniques de Jeu I 3-3-0
Introduction aux techniques d'interprétation d'art dramatique à partir de textes, et d'études des bases de la performance scénique. Travail en équipe sur des scènes tirées d'œuvres théâtrales modernes et contemporaines.
DRA 191 Voice and Media: An Introduction 3-3-0 Students would work with a foundation of breathing, vocal freedom, and articulation. Students would work with different dialects in English, and would work both live and in recording studio. The acquisition of skills in working with the voice in different media is an important preparation for actors, but also for anyone interested in voiceover for televisual media, games and recorded communication.
DRA 233 Acting III
3-3-0
Approaches to text and character. The work is on a project and performance basis, some of which will be for presentation.
Prerequisite: DRA 132 and permission of the Department
DRA 234 Acting IV 3-3-5
Scene study and collective creation: analysis, rehearsal techniques and final presentation in Studio Theatre.
Prerequisite: DRA 233

DRA 237 Theatre Lab
3-3-3
The course will focus intensively on the preparation and training of the physical means of acting. Workshops will concentrate on both voice and body movement exercises.
Prerequisite: DRA 233 or permission of the Department
DRA 334
Text and Language
3-3-0

Students will explore the relationship between the written text and the spoken text. Source material will include prose and poetry as well as dramatic dialogue. There is no production attached to this course, but in-class presentations, open to the public, will be given on an informal basis
Prerequisite: DRA 233
DRA 439 Scene Study
3-3-0
Students will explore scenes from the great works of the theatre. Texts will generally be chosen from those studied in the dramatic literature courses. Three in house presentations will be given during the term.
Prerequisite: DRA 233 or permission of the instructor
DRA $440 \quad$ Scene Study II - Shakespeare
3-3-0
A senior level acting course that bridges the gap between the study of dramatic literature and full scale production. Each student in the class will have the opportunity to take on leading roles in scenes chosen from the Shakespeare canon. In addition, we will explore one text on acting theory that addresses Shakespearian verse.
Prerequisite: DRA 233 or permission of the instructor

## Directing

We offer six credits in directing. The opportunity to direct a short play is provided by our New Plays and Theatre Activ festivals.
DRA 246 Introduction to Directing
3-3-0
The basic elements of directing a play, including interpretation, analysis, visual presentation, use of space, and rehearsal techniques.
Prerequisite: No prerequisites required
DRA 247 Directing Theory and Practice
3-3-0
Study in depth of major directorial problems. Each student directs short scenes.
Prerequisite: DRA 246 and permission of the instructor

## Playwriting

Six credits of playwriting are offered. Student written plays are produced in New Plays Festival, and Theatre Activ. Enrolment is limited but a few places are open to non-Drama students.
DRA 281 Playwriting I $\quad \mathbf{3 - 3 - 0}$
A course in play appreciation and play structure as well as a practical workshop in the writing of one-act plays. Assignments include text analysis, scene writing, and the creation of a complete short play.

## DRA 282 Playwriting II

3-3-0
Classes take the form of standard playwriting workshop sessions. Each student will write an extended monologue, a series of dramatic sketches, and a one-act play. All work will be read and critiqued by other members of the group.
Prerequisite: DRA 281 or permission of the instructor

## Seminar Courses

These courses were created for students to engage in theatre research and praxis; course material will integrate with preparations for senior productions and with guest artists.
DRA 311, DRA 312, DRA 313
Production Dramaturgy:
Theatre Research in Action I, II, III
3-3-0
Production Dramaturgs are the Editors of the theatre world. Each course involves in-depth research into the historical period, theatre styles and key issues connected to the Centennial Theatre Production. The dramaturgy team in these classes would not only research these issues, but would learn how to effectively communicate them to the creative team and both special and general audiences through web content and program material.
Prerequisite: DRA 102 and 9 other DRA credits or permission of the instructor

## DRA 391, DRA 392, DRA 393

## Theatre Praxis:

Contemporary Theatre Creation I, II, III 3-3-0
This series of studio-based courses offer the student to engage in an important method of contemporary theatre creation. While complimenting production courses, here the focus is on exploration and investigation of theatre methods that challenge traditional commercial practices. An individual course may focus on verbatim theatre (working with documentary materials to create performance) applied theatre (theatre for social change that works with a community) and multimedia performance (the mixture of live and mediated materials in performance).
Prerequisite: DRA 131, DRA102 and 6 other DRA credits or by permission of the Department

## Technical Theatre

DRA 101 is open to all students interested in theatre production. Enrolment in subsequent technical courses is limited.
DRA 101 Introduction to Technical Theatre
3-3-3
An introduction to the elements, processes, and systems of the stage environment through lectures and group tutorials.
DRA 250 Intermediate Technical Theatre Stagecraft 3-3-5
This course will examine in more detail several areas of study encountered in Introduction to Technical Theatre. In order to prepare students for more advanced courses, we will concentrate on the use of sound, lighting and scene shop equipment. We will also focus on basic drafting, set construction, scene painting and rigging.
Prerequisite: DRA 101
DRA 251 Lighting Design
3-3-5
This course covers both the aesthetics and the techniques of stage lighting. In addition to exploring the theory and process, the students will design the lighting for Drama Department student productions.
Prerequisite: DRA 101 and permission of the Department

## Design

Six introductory credits are offered in set and costume design. The two courses are offered in alternate years. Enrolment is limited. These courses are cognate courses and open to Fine Arts students.
DRA 161 Introduction to Costume Design for Theatre
3-3-0
This course offers an introduction to the history, basic elements and practice of costume design. Course work will include both an investigation of the principles of design for theatre and an understanding of the practical elements of costume creation.
DRA 162 Introduction to Scenography
3-3-0
This course offers an introduction to the history and development of scenography, text analysis, the principles and the process of scenography. Course work will include project-based designs as well as lecture/discussion in this field.

## Production

These courses involve a major role or function in faculty directed productions in Studio or Centennial Theatres.

## DRA 331 Production I: Performance

3-3-5
The course will consist of major involvement in and responsibility for Department production(s) in the areas of acting, stage management or directing. Productions will take place in the Studio Theatre.
Prerequisites: DRA 131, DRA 132, DRA 233, DRA 234

## DRA 341 Production I: Technical Production <br> 3-3-5

This course will consist of major involvement in and responsibility for Department production(s) in the areas of design, technical direction and production. Productions will take place in the Studio Theatre.
Prerequisites: DRA 101, DRA 131, either DRA 250 or DRA 251
DRA 332 Production II: Performance 3-3-5
The course will consist of major involvement in and responsibility for Department production(s) in the areas of acting, stage management or directing. Productions will take place in Centennial theatre; students will be required to work during Reading Week.
Prerequisites: DRA 131, DRA 132, DRA 233, DRA 234

DRA 342 Production II: Technical Production
3-3-5
The course will consist of major involvement in and responsibility for Department production(s) in the areas of design, technical direction and production. Productions will take place in Centennial Theatre; students will be required to work during Reading Week.
Prerequisites: DRA 101, DRA 131, either DRA 250 or DRA 251

## Thesis

Honours students will undertake a thesis project under the supervision of one or more members of the Department
DRA 450F Honours Thesis 6-1-0 or 6-0-5
Thesis proposals must be submitted before classes begin for the academic year in which the thesis is to be completed.
Students undertaking a thesis in the area of Dramatic Literature and Theatre History will write a thesis-length research paper on a subject approved by the Department. Students undertaking a thesis in the area of Production (acting and directing) will write a research paper related to their project and submit all materials related to that project.
Before planning a production thesis, students should thoroughly familiarize themselves with the document "Criteria for Acceptance of an Honours Thesis." (available from the chair of the Department.)

## Independent Study

The Department offers a variety of independent study options for either special projects, approved by the Department, or advanced work in theatre production or drama study. Students may register for a maximum of twelve independent study credits.
DRA 310 Independent Study: Theatre Research and History
Advanced study of dramatic literature or theatre history.
Prerequisite: DRA 101, DRA 102, DRA 131, DRA 222 and permission of
Department
DRA 337 Independent Study: Performance I
3-0-5
Advanced work in major role in faculty directed show.
Prerequisite: DRA 331
DRA 339 Independent Study: Performance II
Advanced work in major role in faculty directed show.
Prerequisite: DRA 234, DRA 237, DRA 331
DRA 350 Independent Study: Theatre Production I
3-0-5
Advanced work in theatre production; major responsibility for production function in Studio Theatre show.
Prerequisite: DRA 331 and permission of the Department
DRA 351 Independent Study: Theatre Production II $\mathbf{3 - 0 - 5}$
Advanced work in theatre production; major responsibility for production function in Studio or Centennial Theatre show.
Prerequisite: DRA 332 and permission of the Department
DRA 352 Independent Study: Stage Management 3-0-5
Advanced work in stage management; responsibility for stage managing a faculty directed show.
Prerequisite: DRA 250, DRA 254, DRA 331 or DRA 332 and permission of the Department
DRA 363 Independent Study: Design
3-0-5
Advanced work in set, lighting, or sound design; major responsibility for design of faculty directed show.
Prerequisite: DRA 251 or DRA 262, DRA 331 or DRA 332 and permission of the Department
DRA 365 Independent Study: Costume Design 3-0-5
Advanced work in costume design; major responsibility for design of faculty directed show.
Prerequisite: DRA 160 and DRA 331 or DRA 332 and permission of the Department
DRA 370 Independent Study: Special Project $\quad \mathbf{3 - 0 - 5}$
Advanced work on a special project approved by the Department.
DRA 380 Independent Study: Playwriting
3-0-5
Advanced work in playwriting. Interested students must submit a completed first draft two weeks prior to registration.
Prerequisite: DRA 282

## English

## Faculty

## Gregory Brophy,

B.A. (Trent), B.Ed. (Queen's), M.A. (Western), Ph.D. (Western); Associate Professor

## Claire Grogan,

B.A., M.A. (Oxon), P.G.C.E. (Oxon),

Ph.D. (Calgary); Professor,

## Shawn Malley,

B.A., M.A. (UNB), Ph.D. (UBC); Professor

Chair of the Department
Linda Morra,
B.A. (Toronto), M.A., Ph.D. (Ottawa), Professor

## Jessica Riddell,

B.A. (St. Mary’s), M.A., Ph.D. (Queen's); Professor
Steven Woodward,
B.A. (Queen's), B.A.A. (Ryerson), M.A., Ph.D.
(Toronto), Professor

## Program Overview

Within the liberal arts environment of Bishop's University, the Department of English offers a diverse range of courses and programs to help students to develop their critical appreciation of texts of all kinds (literature, film, television, etc.), and to broaden their understanding of culture and its relationship to the individual, from historical and theoretical perspectives. Students of English develop analytical, research, and communication skills that are well-suited to many careers in today's information economy. Recent graduates have pursued graduate studies and careers in fields as diverse as teaching English, advertising and marketing, film-making, law, politics, publishing, television, education, journalism, and business communications.

## Foundation Year

The three Foundation Year courses taken by all English Majors and Honours students are:

ENG 100, "Introduction to English Studies"; ENG 112, "English Literary Tradition: The Middle Ages and the Renaissance"; and ENG 113, "English Literary Tradition: The Eighteenth Century to the Present."

The fourth Foundation year course is ENG 101 for Literature Concentration; ENG 102 for Film and Media Studies Concentration

## Honours in Literature (60 credits)

The Honours in English Literature is designed for students who wish to specialize in the study of English Literature, especially with the goal of continuing to study the subject at the graduate level.

Students in this program take at least 60 credits in English, including the Foundation year courses ( 12 credits); the Core course, ENG 215, "Introduction to North American Literatures" (3 credits); and at least 30 credits from the Areas of Specialization. Of these 30 credits in the Areas of Specialization, twelve credits (4 courses) must be selected from Group A, twelve credits (4 courses) from Group B, and six credits ( 2 courses) from Group C.

## Areas of Specialization

Group A: Old English and Middle English: 216, 221, 222, 310, 315, 316
Sixteenth and Seventeenth Century: 223, 224, $225,320,321,325$, DRA 222
Eighteenth Century: 332, 333, 390 Romantic: 295, 342, 347, 348
Group B: Victorian: 254, 255, 350, 351
Twentieth-Century British: 250, 251, 360, 361
Canadian: 252, 253, 275, 352, 358, 359
American: 256, 257, 353, 356, 357

## Group C: Postcolonial: 228, 358, 375

Critical Theory: 202, 232, 234, 236, 239
At least four of the courses in the Areas of Specialization must be 300- or 400-level seminars. Students are strongly encouraged to take courses from all ten areas, and are required to take at least three of the areas in both Group A and Group B.

In addition, students must complete three elective English courses ( 9 credits ), and either two additional courses from the 200 or 300 level ( 6 credits) or ENG 471 and ENG 472 in their stead.

Majors and honours students in English must satisfy the Humanities Divisional requirements outlined at the beginning of the Humanities section of this calendar. Students with program combinations which require more than 72 credits are exempt from this requirement.

## Honours in Film and Media Studies (60 credits)

HONENF
The Honours in Film and Media Studies is designed for students who wish to specialize in these areas, especially with the goal of continuing to graduate studies.

Students in this program take at least 60 credits in Film and Media, including the Foundation year courses ( 12 credits); Core Courses ( 12 credits); seven Core Elective courses in Film and Media Studies (21 credits); three elective courses in English (9 credits), and either two additional English at the 200 or 300 level ( 6 credits), or the Honours Thesis (ENG 471 and ENG 472).

Four Foundation Year Courses: (12 credits): ENG 100, ENG102, ENG 112, ENG 113.
Four Core Courses: ( 12 credits): ENG/DRA 170, ENG 279 (formerly ENG 289), ENG 280; at least One of ENG 287, or ENG 291.
Seven Core Electives ( 21 credits): CDC 100, CLA 150, ENG 124 (formerly ENG 219), ENG 217, ENG 218, ENG 236, ENG 278, ENG 281, ENG 282, ENG 283, ENG 284, ENG 287, ENG 288, ENG 291, ENG 293, ENG 294, ENG 295, ENG 297, ENG 298, ENG 350, ENG 381, ENG 382, ENG 383, ENG 384, ENG 463, FIH 230, FIH 240, FRA 250, FRA 259, GER 270, GER 271, ITA 309, ITA 310, MUS 115 (formerly MUS 102), MUS 116, PHI 345, REL 237, SOC 105, SOC 241, SPA 318, SPA 333.
Five English Electives ( $\mathbf{1 5}$ credits): Students have the option to complete the English Honours Essay (ENG 471 and ENG 472) as part of this requirement.

As per Humanities Division guidelines, students must attain an average of $70 \%$, calculated on the best 60 credits in the program (including cognates) in order to graduate with an Honours degree.

## Cognates

Students in the Honours Literature program and the Major Concentration in Literature and Education may count Drama courses in English Literature, CLA 202 "The Classical Influence on Shakespeare" and Education 211 "Introduction to Young Adult Literature" as satisfying English requirements, subject to the approval of the Department. Courses in Classical, French, German, Spanish and Italian literatures, as well as mythology and the Bible may also be considered as cognates. No more than two cognate courses ( 6 credits) may be counted as part of these programs.

## English Major

## 1) Literature Concentration (48 credits)

MAJENL
Students in the English Major, Literature Concentration, take at least 48 credits in English, including the Foundation year courses ENG 100, ENG 101, ENG 112, ENG 113 ( 12 credits); the Core course, ENG 215, "North American Literatures" (3 credits); at least three courses ( 9 credits) in English Literature before 1900 (including CLA 202, DRA 222, ENG 115, 216, 221, 222, 223, 224 $225,254,255,310,315,316,320,321,325,332,333,342,347$, 348, 350, 351, 356, 357, and 390); and eight English electives (24 credits).

## 2) Film and Media Studies Concentration (48 credits)

MAJENF
Students in the English Major, Film and Media Studies Concentration, take at least 48 credits in English, including the Foundation year courses ENG 100, ENG 102, ENG 112, ENG 113 (12 credits);
ENG/DRA 170 "Intro to Film" (3 credits);
at least two Core Courses ( 6 credits) from ENG 279, ENG 280, ENG 287, ENG 291;

Five Core Electives ( 15 credits) chosen from CDC 100, CLA 150, ENG 124 (formerly ENG 219), ENG 217, ENG 218, ENG 236, ENG 278, ENG 279 (formerly ENG 289), ENG 280, ENG 281, ENG 282, ENG 283, ENG 284, ENG 287, ENG 288, ENG 291, ENG 293, ENG 294, ENG 295, ENG 297, ENG 298, ENG 350, ENG 381, ENG 382, ENG 383, ENG 384, ENG 463, FIH 230, FIH 240, FRA 250, FRA 259, GER 270, GER 271, ITA 309, ITA 310, MUS 115 (formerly MUS 102), MUS 116, PHI 345, REL 237, SOC 105, SOC 241, SPA 318, SPA 333; and four English Electives ( 12 credits).

## Minors (24 credits) mineng minenf

For students in any discipline at Bishop's who, in addition to their major concentration, wish to develop a secondary area of expertise in one of the fields offered through the English Department, we offer four different minors:

The English Minor allows students to sample from the many different subject areas offered through the English department. Students must complete any 24 credits of their choice, none of which may be cognate courses.

The Film and Media Studies Minor provides an introduction to the study of film through the increasingly rich, interdisciplinary approach that now defines this field. Film courses are typically taught in the cinema class room (Nicolls 4), which is equipped with excellent projection and sound equipment, as well as cinema seating. The Film and Media Studies Minor requires the completion of 24 credits in the following manner:
Four Core Requirements (12 credits) composed of ENG/DRA 170 and at least three courses from ENG 102, ENG 279, ENG 280, ENG 287, ENG 291.
Four Core Electives ( $\mathbf{1 2}$ credits) chosen from the following list:
CDC 100 Introduction to Communications: Theory and Practice
CLA 150 The Ancient World in Film and Television
ENG 102 Approaches to Media Studies
ENG 124 Introduction to the Graphic Novel
(formerly ENG 219)
ENG 217 The Arthurian Tradition
ENG 218 The Gothic Tradition
ENG 236 Popular Culture
ENG 278 Science Fiction in Literature and Film
ENG 279 Film History to 1939 (formerly ENG 289)
ENG 280 Film History after 1939
ENG 281 Canadian Cinema
ENG 282 Film Adaptation
ENG 283 The Documentary Film
ENG 284 Film Noir
ENG 287 Image and Communication
ENG 288
ENG 291
Crime Pays: The Gangster Film Genre
Film Theory
ENG 293 Four Filmmakers
ENG 294 Film Comedy
ENG 295 Jane Austen and Film
ENG 297 From Aliens to Zombies
ENG 298 Studies in Directors/Actors: Alfred Hitchcock
ENG 350

Technology, Media and Literature in Victorian England.

ENG 381

ENG 382
ENG 383
ENG 384
ENG 463
FIH 230
FIH 240
FRA 250
FRA 259
GER 270
GER 271
ITA 309
ITA 310
MUS 115
MUS 116
PHI 345
REL 237
SOC 105
SOC 241
SPA 318
SPA 333
Aispanic Literature and Film
The courses listed above are rotated and may not be offered every year. Students seeking further information may contact the Director of the Film and Media Studies Program, Dr. Steven Woodward (English), in Morris House.

## The Literature Minor ( 24 credits) MINENL

This minor allows students to focus on the many different aspects and areas of English literatures offered through the English department. The Literature Minor requires 8 courses ( 24 credits) from the following list:
ENG 100 Introduction to English Studies
ENG 101 Responding to Literature
ENG 104 Approaches to Short Fiction
ENG 108 American Short Story
ENG 110 English Writers of Quebec
ENG 111 Canadian Short Story
ENG 112 English Literary Tradition I
ENG 113 English Literary Tradition II
ENG 115 Women Writers before 1900
ENG 118 Literature of the Environment
ENG 122 Introduction to Russian Literature
ENG 123 Introduction to Indigenous Literature in Canada
ENG 202 History of the English Language
ENG 205 The Art of Persuasion
ENG 210 History of Children's Literature
ENG 212 Crime Stories
ENG 215 Introduction to North American Literatures
ENG 216 Chaucer: The Canterbury Tales
ENG 217 Arthurian Tradition
ENG 218 The Gothic Tradition
ENG 221 God, Good Kings and Vikings: Early Medieval Literature
ENG 222 The Garden of Desire: Late Medieval Literature
ENG 223 Elizabethan Shakespeare
ENG 224 Jacobean Shakespeare
ENG 225 The Stratford "Shakesperience"

ENG 228
ENG 232
ENG 234
ENG 238
ENG 239
ENG 241
ENG 250
ENG 251
ENG 252
ENG 253

ENG 254
ENG 255
ENG 256
ENG 257
ENG 275
ENG 278
ENG 295
ENG 310
ENG 315
ENG 316
ENG 320
ENG 321
ENG 325
ENG 332
ENG 333
ENG 342
ENG 347
ENG 348
ENG 350

ENG 351
ENG 352
ENG 353
ENG 356
ENG 357
ENG 358

ENG 360
ENG 361
ENG 375
ENG 390

Introduction to Post-colonial Literature Ecocriticism<br>Contemporary Literary Theory<br>Confessions, Memoirs and Life Writing<br>Feminist Literary Theory<br>War and Literature<br>Modern British Novel<br>British Dystopian Novel<br>English-Canadian Literature to WWI<br>English-Canadian Literature from WWI to Present<br>Animal Nature in Victorian Culture<br>Crime and Culture in Victorian England<br>Early $20^{\text {th }}$ Century American Novel<br>Contemporary American Novel<br>Contemporary Canadian Novel<br>Science Fiction in Film and Literature<br>Jane Austen and Film Adaptation<br>Old English<br>Romance and Dream Vision in Medieval England<br>Medieval Comedy and Satire<br>$16^{\text {th- }}$ Century Poetry and Prose<br>$17^{\text {th }}$ Century Poetry and Prose Milton<br>$18^{\text {th }}$ Century Literary Journeys<br>$18^{\text {th }}$ Century Georgian Literature<br>Revolution and Romanticism<br>Early Romantic Poetry<br>Later Romantic Period<br>Technology, Media and Literature in Victorian England<br>Late Victorian Poetry and Prose<br>Canadian Literature and Theories of Globalization<br>Boy Meets Girl: American Literature<br>Early 19th- Century American Literature<br>Late 19th- Century American Literature<br>Approaches to Indigenous Literary Cultures in Canada<br>Low Modernism<br>British Poetry after 1930<br>Colonial Narratives<br>Restoration Literature

## The Communications and Digital Culture Minor (24 credits)

MINCDC
The Communications and Digital Culture minor offers practical instruction in writing and speaking in a variety of academic, creative, and professional contexts, including communication, journalism, copywriting, and various modes of digital production. Housed within an English department that prepares students as critical readers and effective writes, the Minor works to "broadcast" these strengths by networking with the rich spectrum of cultural production and critique underway at Bishop's. Drawing on multiple disciplines, this program develops technical expertise in various modes and media, providing training in the skills of communication, critique and collaboration that will help students to develop confident and compelling voices in their chosen fields.

The Communications and Digital Culture minor requires the completion of 24 credits in the following manner:

## Two Core Requirements (6 Credits):

CDC 100 Introduction to Communications:

ENG 116 Effective Writing;
Four 'Category A' Electives (Theory and Practice), chosen from the following list ( 12 credits):
AAD 252 Arts Administration: Communications and Marketing
BMK 323 Marketing Communications
CS 203 Interactive Web Page Design
CS 207 Databases and Dynamic Web Design
ENG 102 Approaches to Media Studies
ENG 202 History of English
ENG 205 Art of Persuasion: Rhetoric from Classical to Contemporary
ENG 236 Popular Culture
ENG 285 Journalism
ENG 286 Online Journalism
ENG 287 Image and Communication: Visual Culture and Critique
ENG 382 Screenwriting
ENG 383 Digital Filmmaking
ENG 384 Documentary Filmmaking
ENG 385 News Editing and Ethics
FIN 218 Digital Imaging for the Artist I
FIS 182 Photography
HIS 275 Digital History
Students may count ONE Experiential Learning ENG course - including ENG 450, ENG 454, ENG 456, ENG 457, ENG 458, and ENG 459 as a 'Category A' Elective.
and Two 'Category B' Electives chosen from the following list (6 credits):
AAD 250 Arts Administration: Internal Operations
BMK 211 Marketing Management
BMK 214 Consumer Behaviour
BMG 345 International Marketing and Export Management
CS 230 Developing Mobile Apps
CS 301 Computer Ethics
DRA 131 Acting I
ENG 200 Creative Writing: Poetry
ENG 201 Creative Writing: Prose
ENG 203 Creative Writing: Experiments in Prose
ENG 204 Creative Writing: Experiments in Poetry
ENG 206 Creative Writing: The Graphic Novel
ENG 290 New Journalism
ENG 296 Sports Writing
FIH 240 Art, Popular and Mass Culture
FIN 348 Digital Imaging for the Artist II
FIS 385 Printmaking: Contemporary Practice
HIS 297 A History of Communications
SOC 280 Interpersonal Communication
(Students may count additional courses from the Category A Electives towards this category.)

## The Creative Writing and Journalism Minor (24 credits) <br> MINCWJ

This minor is designed to help aspiring writers develop their creative abilities through the practice of writing as a discipline and vocation. Courses focus on the technical aspects of various forms of writing, including poetry, screenwriting, playwriting, journalism, fiction, and creative non-fiction. Internships with a newspaper or literary journal will be made available. Students are also expected to participate in the rich writing life at Bishop's, which includes two student drama festivals, the Morris House Reading Series, the Bishop's University Film Festival (BUFF), creative writing competitions, The Mitre, student-run creative writing groups and The Campus newspaper. By the end of their studies, students will have amassed a portfolio of creative works and made business contacts with professional writers.
The Creative Writing and Journalism Minor requires the completion of eight courses ( 24 credits) from the following courses:
CDC 100 Introduction to Communication:
Theory and Practice
DRA 281 Playwriting I
DRA 282 Playwriting II
ELA 201 Advanced Composition
ELA 202 Speech
ENG 100 Introduction to English Studies
ENG 116 Effective Writing
ENG 200 Creative Writing: Poetry
ENG 201 Creative Writing: Prose
ENG 203 Creative Writing: Experiments in Prose
ENG 204 Creative Writing: Experiments in Poetry
ENG 206 Creative Writing: Graphic Novel
ENG 209 Introduction to Creative Writing
ENG 282 Film Adaptation
ENG 382 Screenwriting
ENG 285 Journalism
ENG 286 On-Line Journalism
ENG 290 The New Journalism
ENG 296 Sports Writing
ENG 384 Documentary Filmmaking
ENG 385 Journalism Editing and Ethics
ENG 450 Experiential Learning: Journalism
ENG 454 Experiential Learning: Broadcast Journalism
ENG 458 Experiential Learning: Literary Journal Editing
ENG 459 Public Scholarship: Academic Editing and
Publishing
ENG 461 Senior Seminar: Poetry
ENG 462 Senior Seminar: Fiction
ENG 463 Senior Seminar: Screenwriting
ENG 464 Senior Seminar: Journalism
Senior seminars will be taught by a specialist in creative writing or journalism.

Students may include one of the following short story courses among the eight core electives:
ENG 104 Approaches to Short Fiction
ENG 108 American Short Story
ENG 110 English Writers of Quebec
ENG 111 Canadian Short Story

## Indigenous Studies Minor ( 24 credits)

A number of English courses contribute to the Indigenous Studies Minor (ISM), an interdisciplinary program designed to introduce students to the global processes of cultural encounters and the resultant responses of resistance, accommodation, and adaption. Students will be exposed to theories and world-wide applications of, and responses to, imperialism and colonialism, as well as decolonization and post-colonialism. For more information on the Indigenous Studies Minor, please consult the program description on p. 112 of the Academic Calendar.

## List of Courses

CDC 100 Introduction to Communications: Theory and Practice 3-3-0 This course provides a dynamic introduction to the four pillars of communicationoral, written, visual, performative-and offers effective strategies for success in each area. The course combines lectures and workshops, modeling the critical skills in the study of communications while developing the practical skills students require to claim an active role in shaping the cultural conversation. Units culminate in a series of productions-ranging from public addresses, to web design, to podcasting-that emphasize the public nature of the course's interventions into culture, pushing student creations beyond the margin of the page and the classroom.
CDC 400 Senior Professionalization Seminar: Portfolio 3-3-0 This senior professionalization seminar focuses on the development of student portfolios that showcase the unique experience, education and training of each student in the Communications and Digital Culture program. Coursework will support students in crafting an authentic and compelling expression of their distinctive vision and values.
Prerequisites: CDC 100
ENG 100 Introduction to English Studies 3-3-0 A gateway to English studies, this course challenges students to develop critical thinking, speaking, and writing about a wide array of texts, from poetry and fiction to television, film and digital media. The course's workshop structure stresses collaborative work and active engagement with the subject matter through various forms of creative and critical expression (e.g. creative revisions of poetry, journals, Moodle posts, debates, and short essays). Exercises will isolate and develop the core critical skills upon which students will depend throughout their studies in English.
Note: Students who have received credit for ENG 105 are not eligible for ENG 100. Offered every Fall
ENG 101 Responding to Literature
3-3-0
This course will develop the student's critical thinking, speaking, and writing skills in response to literary texts in English from a range of genres: primarily poetry and prose. It will develop the student's knowledge and familiarity with theoretical approaches to literature, both intrinsic and extrinsic.
Note: Students who have received credit for ENG 106 are not eligible for ENG 101. Offered every Winter
ENG 102 Approaches to Media Studies
3-3-0
Through a close examination of the different forms of contemporary culture people are frequently exposed to and consume - movies, TV sitcoms, internet blogs, pop music, and so on - this course considers how our understandings of reality and our perceptions about society and our identities are shaped by the various media that surround us. Informed by both cultural theory and the history of media, this course offers a series of case studies of media texts with the goal of helping students understand the nature and effects of our contemporary media culture.
Offered every Winter

ENG 104 Approaches to Short Fiction
3-3-0
This course introduces students to the study of fiction through the analysis of short stories and novellas from various literary traditions and historical periods. Stories will be discussed in terms of such aspects of fiction as plot, character, setting, point of view, voice, discourse, tone, symbol, and theme.
Offered every year
ENG 108 The American Short Story
This course examines the development of the short story form in the United States from its beginnings in the work of Irving, Poe, and Hawthorne, through Fitzgerald and Hemingway, up to such contemporary writers as Oates and Barth. Subjects to be examined include the Gothic tradition, the influence of Puritanism, the AfricanAmerican experience, gender, and madness.
ENG 110 English Writers of Quebec 3-3-0
Selected short stories, novels, plays, and poems of such writers as Hugh MacLennan, Mordecai Richler, Brian Moore, Joyce Marshall, Ralph Gustafson, David Fennario, A.M. Klein, F.R. Scott, and Irving Layton will be studied. Such topics as "English-French Relations," "The Immigrant Experience," "MaleFemale Relationships," "Class Conflicts," and "The Jewish Experience" will be examined.
ENG 111 Canadian Short Story
3-3-0
This course will examine a wide variety of Canadian short stories, from the late nineteenth century until the present. The authors studied may range from Roberts and Callaghan, to such contemporary writers as Munro, Atwood, Glover, and Vanderhaeghe.
Offered every year
ENG 112 English Literary Tradition:
The Middle Ages and the Renaissance
3-3-0
An introductory historical survey of major works and genres of British literature from its beginnings to the Restoration. Students will analyze literary works within their historical, social, and cultural contexts. The course emphasizes close reading of individual texts.
Offered every Fall
ENG 113 English Literary Tradition:
The Eighteenth Century to the Present
3-3-0
This course provides an introductory survey of major works and genres of British literature from the Restoration to the end of the Twentieth century. Close reading of individual texts will be informed by analysis of their historical, social, and cultural contexts.
Offered every Winter
ENG 115 Women Writers before 1900
3-3-0
A survey of literature in English by women from the Middle Ages until the beginning of the twentieth century in the perspectives of feminist critical theory. The course includes poetry, fiction, and nonfictional prose.

## ENG 116 Effective Writing

3-3-0
Writing is a key competency in communicating across the disciplines. Students will read a variety of texts of different genres so as to become familiar with various types of academic and professional discourse. Students will be encouraged to analyze writing strategies, content, organization, and style with a view to improving their overall writing abilities. Students will also be made aware of different writing situations, particularly those that may arise in their own disciplines.
Prerequisite: Students are normally expected to have achieved a result of at least "5-" on the EWP Exemption Credit Examination before they attempt ENG 116. Students who need a course in basic writing are encouraged to register in the course English Writing Proficiency (EWP 099).
ENG 118 Literature of the Environment
3-3-0
This course will introduce students to a selection of literature -- fiction, poetry, criticism and literary non-fiction--that deals with the relationship of humans with the natural world.
ENG 122 Introduction to Russian Literature $\quad$ 3-3-0
This course will introduce students to Russian literature (in translation) through a close reading of a selection of novels, poems and short stories.
Only offered in the spring

ENG 123 Introduction to Indigenous Literatures in Canada 3-3-0
This course is an introduction to traditions and innovations in Indigenous literatures in Canada through textual analysis and an examination of cultural contexts. The primary focus will be on contemporary literatures; however, we will also read selections from earlier texts. We will explore how Indigenous writers draw from European, American, and Indigenous traditions, and how their more recent works reflect histories of struggle both in style and content. Although written texts will form the core of the course, we may also examine contemporary popular mediaespecially film-and their representations of the Indigenous.

## ENG 124 The Graphic Novel

3-3-0
This course will introduce students to the genre of the Graphic novel and will examine visual rhetoric in literature, history, journalism and popular culture. Possible topics include superhero fantasy, gender stereotypes, sexuality, war, racism and drug abuse.
Formerly ENG 219

## ENG 170 / DRA 170 Introduction to Film

3-3-0
The creation of films and what happens when we view a film are complex and fascinating phenomena. The course provides a basic understanding of the vocabulary of and approaches to narrative cinema. Each week's subject of study is applied to a number of specific films.

ENG 200 Creative Writing: Poetry
A workshop seminar for students interested in writing poetry.
Not open to 1st year students
ENG 201 Creative Writing: Prose
A workshop seminar for students interested in writing fiction.
Not open to 1 st year students
ENG 202 History of the English Language
3-3-0
A survey of the transformations of the English language from its beginnings to the present studied in the context of the major social, political, and literary developments in English history. The course includes an introduction to basic linguistic concepts as applied to the study of the English language and an overview of Canadian English.
ENG 203 Creative Writing: Experiments in Prose
3-3-0
A practical course in writing a variety of fiction and non-fiction prose forms. Work will be edited and critiqued in workshop sessions by peers and the instructor.
Not open to 1st year students
ENG 204 Creative Writing: Experiments in Poetry 3-3-0
A practical course in writing a variety of poetic forms. Work will be edited and critiqued in workshop sessions by peers and the instructor.
Not open to 1st year students
$\begin{array}{ll}\text { ENG } 205 & \text { The Art of Persuasion: Rhetoric, and its Uses and Abuses, } \\ & \text { From Classical to Contemporary Culture 3-3- }\end{array}$
This course focuses on the history, theory, and practice of rhetoric across disciplinary boundaries. While exploring texts drawn from philosophy, literature, history, psychology, religion, and politics, we will trace common themes, including a sustained attention to the deployment of rhetoric to serve various ideological and polemical purposes, the ethical dimensions of rhetorical use, and the ways in which language seeks to build consensus and create meaning even as it is always at risk of being destabilized, troubled, or deconstructed. The objectives of the course are two-fold: 1) to develop a critical acumen for the identification and analysis of persuasive strategies in arguments 2 ) to be able to produce persuasive texts and speeches informed by classical theories and techniques.
ENG 206 Creative Writing: The Graphic Novel
3-3-0
This course further examines graphic novels and other sequential storytelling examples with an emphasis on applying literary theories to visual rhetoric. Students will also learn about Book Arts, and how to exploit all elements of "the book" to create artist's books. The class will examine theories on graphic storytelling, wordless communication, colour, layout and typography. Students will be required to produce multiple copies of their original work to learn reproduction techniques. Prerequisites: ENG 124 or Permission of the Instructor
ENG 209 Introduction to Creative Writing
3-3-0
This is an introduction to reading and writing poetry and prose, an opportunity to develop your craft through dynamic exchange with the traditions and innovations that drive contemporary literary practice. Interlacing critical reflection and creative application, the course alternates between seminar-style discussions of literature designed to introduce students to an array of formal tools and techniques, and workshops where students submit their original work for class discussion and development. Assessment will be based on preparation and participation, timely submissions, and a final portfolio.

ENG 210
History of Children's Literature
3-3-0
An historical and critical study of children's literature in English. The course includes an overview of the history of children's literature and introduces students to the critical analysis of a variety of its genres, including nursery rhymes, folk and fairytales, myths and legends, fables, poetry, and "classic" novels. Some of the issues to be discussed may include didacticism, oral and written discourse, appropriation, the development of special literature for children, and the representation of social issues.

ENG 212 Crime Stories - The Great Detectives
3-3-0
An exploration of the development of narratives dealing with crime and punishment from some of its earliest manifestations as pulp fiction or popular reading to sophisticated modern fiction that continues to dominate the best-seller lists. Assigned texts cover both British and North American crime writing in order to demonstrate the evolution of different conventions and themes of the genre. The course will also explore how detective fiction in particular can reveal or even subvert the dominant ideology and culture of its time and place.
ENG 215 Introduction to North American Literatures
3-3-0
This course prepares students for the broader study of American, Canadian and Indigenous literatures by contextualizing and analyzing national literary texts; making linkages between these disparate bodies of literature; and drawing insights about socio-political, literary and cultural developments.
ENG 216 Chaucer: The Canterbury Tales 3-3-0
Travel the pilgrimage road with the master storyteller of medieval England, Geoffrey Chaucer. Meet some of the most famous characters of English literature and read tales that range from high romance and tragedy to low comedy and burlesque. The focus of the course will be on reading The Canterbury Tales in Middle English within their particular literary, social, and historical contexts.
Students with credit for ENG 314 cannot receive credit for ENG 216
ENG 217 The Arthurian Tradition
3-3-0
A survey of the evolution of the mythic romance of King Arthur and the Knights of the Round Table from its earliest beginnings to modern times. Various works representative of the tradition will be selected from different historical periods and from different media, including film and the visual arts as well as literature.
ENG 218 The Gothic Tradition
In this course, we shall read representative texts from a wildly popular genre that emerged in the late eighteenth century: the Gothic! Beginning with an examination of the medieval connotations of the term "gothic" and its resonances in $18^{\text {thr }}, 19^{\text {th }}$, and $18^{\text {th- }}$ century aesthetics, our reading will consider the form, readership, and social vision of various types of gothic literature.
ENG 220 Fantasy
3-3-0
This course will explore the genre of fantasy in literature and film either through study of several works by a particular individual (Tolkien, Pullman) or a theme present in a selection of works by different authors.

## ENG 221 <br> God, Good Kings and Vikings: Early Medieval Literature

3-3-0
This course offers an introduction to the language and literature of the early Medieval period ( $600-1100 \mathrm{CE}$ ) in translation. All texts will be in modern English.

## ENG 222

The Garden of Desire: Late Medieval Literature
3-3-0
This course offers a survey of late Medieval Literature (1100-1500) from a variety of texts and genres, including the ballad, the lyric, the romance, the saint's life, etc. All texts will be in Middle English.

ENG 223 Elizabethan Shakespeare (1590-1603)
3-3-0
Close study of six plays written and performed in the reign of Elizabeth in relation to the theatrical, social, political, and cultural practices of Elizabethan society and the Elizabethan court.

ENG 224 Jacobean Shakespeare (1603-1614)
3-3-0
Close study of six plays written and performed in the reign of James I in relation to the theatrical, social, political, and cultural practices of Jacobean society and the Jacobean court.
ENG 225 The Stratford "Shakesperience" 3-3-0
The focus of the course will study 6 plays (3-4 Shakespeare plays) from the annual Spring season of the Stratford Festival in Stratford, Ontario. The course will start with an intensive classroom experience (online and in-person), and involve a discussion of the theoretical questions that underlie performance and performance criticism. Together as a class, we will explore the themes of the plays, engage in careful analysis and close reading, and compare various filmic versions. The field study component takes students to Stratford, Ontario, for an immersive experience watching 6 plays, participating in workshops, meeting with actors and directors, backstage tours, and guest lectures from various experts with a focus on repertory theatre

ENG 228 Introduction to Post-Colonial Literature 3-3-0
This course is an introduction to post-colonial literature and theory. We begin with a discussion of what "post-colonial" means to writers of countries formerly colonized by the British before moving into literatures composed by writers from Africa, Australia, the Caribbean, India, Ireland, and the Pacific.

## ENG 232 Ecocriticism

3-3-0
Students in this course will study the rise of Ecocriticism by tracing the changing attitudes towards the environment as seen in a selection of English literature from the eighteenth century through to the present day. The class will study literary works in a range of genres as well as the central eco-critical theorists such as Williams, Kolodny, Rueckert, Buell and McDowell.

## ENG 234 Contemporary Literary Theory

3-3-0
This course explores diverse topics and debates in contemporary literary criticism. The student will examine the assumptions, intentions and rhetoric of representative critical texts and theoretical schools. Practical application of literary theory to texts is emphasized.
Prerequisite: ENG 106, 101 or permission of the instructor

## ENG 236 Popular Culture

3-3-0
A very large portion of contemporary culture is mass culture, and mass culture has generally been disparaged by intellectuals from the early 20th century on. More recently, however, critics have begun to celebrate the utopian possibilities of mass culture, the way that individuals actually put mass cultural products to use, converting mass culture (culture produced for the masses) into popular culture (a culture used by the people). The tension between these two views of contemporary culture will underpin this course as we examine theories about and practices of popular culture, including advertising, movies, romances and comics, sitcoms and soap operas, stardom and fandom, blogging and online shopping, and pornography.

## ENG 238 Confessions, Memoirs and Life Writing

3-3-0
This course will begin with the explosion in confessions, memoirs and life writing in the 18 th century and then move through later works in the 19th and 20th centuries. As we read these works we will consider how fact and fiction merged in presentations of self to challenge the reader, society, and literary genres.

## ENG 239 Feminist Literary Theory <br> 3-3-0

A survey of contemporary feminist theory, including feminist literary history, the economic and social conditions of women writers, the connections between gender and genres, the distinguishing characteristics of feminist and women's reading and writing, and feminist debates about subjectivity.
ENG 241 War and Literature
3-0-0
This course will examine how a particular modern war is depicted in literature. We will consider the role such literary depictions play in shaping public opinion and creating an understanding of warfare. Students will study works in a range of genres including poetry, prose, and drama.
ENG 250 The Modern British Novel: Experiments in Fictional Form

3-3-0
This course examines the way British novelists of the early twentieth century created new fictional forms to explore the interior life of their characters as well as the problems of their day. Novelists such as Conrad, Ford, Woolf, Forster, Lawrence, Huxley, and Waugh will be studied in relation to a variety of topics, including Imperialism, anarchism, the Suffragette movement, the Great War, psychoanalysis, science and technology, the rise of Fascism, and class conflicts.
ENG 251 Keep Calm and Carry On:
The British Dystopian Novel
3-3-0
This course traces the development of the British novel after high modernism, paying special attention to the dystopian tradition. Against the backdrop of the decline of the British Empire, the legacy of WWII, multiculturalism, terrorism and the surveillance state, we will explore how these novels negotiate problems of labor and exploitation, desire and consumption, gender and oppression, language and propaganda. We'll also try to make sense of the dystopian novel's current extraordinary popularity, particularly given the genre's typically oppositional stance towards popular culture and consumer society.
ENG 252 English-Canadian Literature to the First World War 3-3-0 This course explores English-Canadian literature from the nineteenth century through to the First World War. Analysis focuses on the development of national identities in relation to various cultural, political, social and historical factors.

ENG 253
English-Canadian Literature from the First World War to the Present

3-3-0
This course explores English-Canadian literature from the First World War to the present. Analysis focuses on the aesthetic and cultural developments in English Canada and the impact of international, national, and regional issues.
ENG 254 Tooth and Claw: Animal Nature in Victorian Culture 3-3-0 This survey of Victorian fiction and poetry investigates the variety of symbolic uses to which animals were put during the nineteenth century, a revolutionary moment in which discoveries in geology and paleontology were throwing into question humanity's place in the natural world. Reading a range of literary forms (from children's fables to lyric poetry to the realist novel), we'll explore how animals served the Victorian imagination, cast alternately as indices of humane and moral quality, as embodiments of domestic ideology and "savage" desires, as grotesque figures of political caricature, and as exotic objects of imperial curiosity.
ENG 255 Legal Bodies: Crime \& Culture in Victorian England 3-3-0 This course explores a range of Victorian literary forms, paying particular attention to the culture's deep fascination with crime. We'll investigate the scene of the crime and the body of the criminal as sites of societal crisis that allowed artists to probe anxieties about class, gender, race, urbanism and empire. Works by Braddon, Browning, Dickens, Collins, Rossetti, Stevenson and Wilde will be examined.
ENG 256 The Early Twentieth-Century American Novel
3-3-0
The modern American novel to 1955. Such novelists as Fitzgerald, Hemingway, Faulkner, West, Steinbeck, Ellison, and Hurston will be studied. Among the topics to be considered: "The American Dream," religion, society, race relations, and war.
ENG 257 The Contemporary American Novel
3-3-0
This course focuses on the contemporary American novel, 1960 to the present. Of particular note will be the postmodern novel and the manner by which it reacts to and shifts away from the literature of the modern period. Depictions of popular culture and satiric renderings of high culture will form part of the discussion.
ENG 275 The Contemporary Canadian Novel 3-3-0
The contemporary novel, from the 1970s to the present. The novelists to be studied may include Atwood, Laurence, Munro, Davies, Ondaatje, Hodgins, and Shields. Topics to be considered may extend to the role of women, depictions of masculinity, history and myth, sainthood, the portrait of the artist.
ENG 278 Science Fiction in Literature and Film 3-3-0
An examination of the futuristic worlds of science fiction as they focus on rather than distract readers from prevalent cultural anxieties and concerns. Students shall consider how science fiction as a symbolist genre variously constructs and deconstructs hegemonic cultural practices within our present digital, networked, information age. Taking an interdisciplinary approach, students shall consider both the history and form of science fiction and some of the theoretical and cultural issues endemic to the genre.
ENG 279 Film History to 1939
3-3-0
This course offers a survey of the technological innovations and aesthetic movements that shaped film production and direction from the 1890 s to the outbreak of World War II. Topics to be studied include early experiments in photography, the beginnings of narrative cinema, German Expressionism, French Poetic Realism, forms of comedy, Soviet Silent Cinema and the theory of montage, the Hollywood studio and star systems, and the introduction of sound and colour to motion pictures. A wide range of films are studied to acquaint students with the contours of film history to 1939.

## ENG 280 Film History after 1939

3-3-0
This course offers a survey of the development of cinema from the outbreak of WWII until the present by considering a range of national cinemas, directors, and aesthetic movements. Topics will include propaganda and documentary films of the war period, Neorealism, Film Noir, genre filmmaking and auteur cinema of the 1950s, Eastern European cinema, Ealing Comedies and Hammer Horror, Japanese post-war cinema, the French New Wave, Italian films of the 1960s, German New Cinema, Canadian cinema after 1970, the New Hollywood, and China's three cinemas.
ENG 281
Canadian Cinema
3-3-0
Covering the entire history of Canadian cinema, this course examines the challenging economic and cultural context of film production and distribution in Canada, the tension between pan-Canadian and regional cinemas, the documentary tradition, First-Nations cinema, experimental filmmaking, and the thematic links of Canadian cinema to Canadian literature and culture more generally.

ENG 282 Film Adaptation
3-3-0
What is lost, and what is found, in translation? This class explores the theory and practice of filmic adaptation, exploring a variety of texts (often multiple remediations of the same story) that allow us to perform a comparative analysis of linguistic and visual art forms. Class discussion and course assignments are designed to provide ongoing training in the formal study of film. We'll consider how these translations highlight the "specificity" of film (the resources and limits, industry and audience, that are peculiar to cinema), as well as showcasing the remarkably adaptive nature of a medium that has evolved by absorbing and synthesizing other forms of art, from magic and burlesque shows to comic books and video games.

## ENG 283 The Documentary Film

3-3-0
This course will trace the historical evolution and impact of English language documentary film and video. From John Grierson's original definition of "the creative treatment of actuality," documentary has evolved from propaganda to direct cinema/cinéma verité to docudrama. Two important questions will be addressed: Do documentary film and video's reductive forms of interpreting events truly illuminate our media-saturated world? How can studying documentary better help us understand a society dominated by media giants?

## ENG 284 Film Noir

3-3-0
Traditionally, film noir is considered more a feeling than a genre, featuring moods of cynicism, darkness, and despair. This course will examine noir's downbeat atmosphere, graphic violence, and complex antiheroes, tracing the genre's development from its origins in World War II's pessimism to its contemporary reflections of social corruption and hypocrisy. Classic and neo-noir films will be viewed and analyzed.

## ENG 285 Journalism

3-3-0
This course teaches the basic requirements of reporting and news writing: interviewing, clear writing, critical thinking, accuracy, story organization, news judgment, and ethical considerations. Students will practice writing news and study some examples of good journalism.

## ENG 286 Online Journalism

3-3-0
A hands-on, real-life approach to accurate reporting of local news stories through an online newspaper created and maintained by course participants with active supervision/involvement by the instructor/managing editor. The online paper will be a modified collaborative news website: students will generate the news, but all copy must be funneled through the managing editor to maintain accuracy and quality of content.
ENG 287 Image and Communication: Visual Culture and Critique 3-3-0 This course aims to cultivate visual literacy, primarily by examining our ingrained "ways of seeing" and interrogating common-sense ideas about the relation between images and reality. Lectures and class discussion will be devoted to close analysis of objects that both illustrate and critique established theories of the image. From photography, to graffiti, to everyday iconography such as traffic signs and advertising, we'll consider the ways in which images carve up the world we live in, possessing the capacity to naturalize or defamiliarize the conventions of everyday life.
ENG 288 Crime Pays: The Gangster Film Genre
3-3-0
This course examines the development of the gangster film from the classical cycle of the early 1930s to the present-day Sopranos. Films to be studied may include Little Caesar, The Public Enemy, Scarface (Hawks), High Sierra, Bonnie and Clyde, Godfather II, The French Connection, Goodfellas, and Shanghai Triad.

## ENG 290 The New Journalism

3-3-0
This class examines a major movement in nonfiction literature that had its genesis in the United States during the 1960s: the "New Journalism," which brought narrative elements and the writer's subjectivity to traditional news reportage. Students will analyze pioneering works of the genre, including Truman Capote's nonfiction novel In Cold Blood, Tom Wolfe's The Electric Kool-Aid Acid Test and Hunter S. Thompson's Hell's Angels, and will continue by exploring the so-called "Gonzo" journalism of the 1972 U.S. presidential election (with examples from the films Where the Buffalo Roam and Fear and Loathing in Las Vegas), Dominick Dunne's reporting on the O.J. Simpson criminal trial, and more recent internet manifestations of the genre. Assignments will include textual analysis and writing subjective news stories.

## ENG 291 Film Theory

3-3-0
This course introduces students to some of the more influential theoretical perspectives that have shaped the viewer's understanding of film over the past century. The course will begin with the realist-formalist debates of classical theory and proceed to examine the impact of literary criticism, semiotics, feminism, psychoanalysis, and Marxism on contemporary film theory. Films from different genres and national cinemas are used to illustrate the various approaches to interpreting and evaluating cinema.

ENG 293
Four Filmmakers
3-3-3
The diversity of cinema since its invention more than 100 years ago will be explored through the examination of a selection of the films of four filmmakers representing different periods, nations, and/or genres of cinema. The filmmakers chosen for study will vary from year to year.
ENG 294 Film Comedy
3-3-0
Filmmakers discovered film's potential for comedy almost from the moment of the invention of the movies, and quickly developed a wide range of techniques and genres to amaze and amuse audiences. This course surveys the full history of this major branch of film production, considering its key figures and wide variety of genres, from the slapstick antics of Chaplin and Keaton through the screwball comedies of Howard Hawks, Frank Capra, and Billy Wilder, to the scathing satires of Monty Python and others.
ENG 295 Jane Austen and Film
3-3-0
This course will examine Jane Austen both as a British novelist and also as an iconic figure taken up by the film industry. The class will study four of her novels, their publication histories, and recent phenomenal success as films. Where possible, a selection of the various film adaptations of each novel will be studied to allow the student to gain a better appreciation of Austen as a writer and consider how the various novels and film adaptations reflect the ideologies of their own period.
ENG 296 Sports Writing 3-3-0
This course examines themes and styles of the sports writing genre in journalism, fiction, and documentary narratives. One focus will be on the basics: interviewing athletes, writing tight, running game stories on deadline in CP style, and producing lively features and in-depth profiles. Students will also read works from Gary Smith, Al Stump, George Plimpton, A.J. Liebling, Jim Boulton, Ken Dryden, Maya Angelou, Hunter S. Thompson, among others and examine film segments based on athletes and events that are representative of sports writing themes, including: Cobb, Eight Men Out, Slap Shot, Hoosiers, Breaking Away, Rudy, Raging Bull, Rocky, and The Greatest. Students will produce sports-related stories in CP style, as well as analyses of sports writing, reportage, and films.

## ENG 297 From Aliens to Zombies: Everything You Ever Wanted

 to Know about Horror but Were Afraid to Ask3-3-0
In this course, we'll explore cinema's obsession with "monster movies." A key concern will be the depiction of the monster as inhuman: an embodiment of hostile difference that threatens the security and integrity of human experience and identity. We'll ask how this foreignness is imagined by different cultures at different times, often functioning as an index of political tensions, and a symptom of societal fears and sexual taboos. Turning from the strange creatures depicted on screen, we'll also consider the effects these films have on the bodies of viewers. Horror films captivate and appall us because they remind us that we have nerves, desires and appetites. What sort of unusual pleasures do we derive from subjecting ourselves to sensations of fear, pain and awe?

ENG 298
Studies in Directors/Actors: Alfred Hitchcock
3-3-0
Alfred Hitchcock is often titled the "master of suspense" because of his brilliant manipulation of audiences through the thriller movies (like Vertigo and Psycho) he made over a fifty-year career. By the 1960s, he was also being recognized as an auteur, a commercial filmmaker exploring a particular range of subjects, including the power of cinema itself, and expressing something like an artistic vision. That vision, his technical innovations, and his self-reflexive commentaries on the cinema have been the subject of much critical attention. This course examines a range of the movies he made over the full span of his career, split between Britain and the United States, and considers the rich critical legacy that surrounds his work.

ENG 310
Old English
3-3-0
This course offers an introduction to the language and literature of the Old English period (600-1100 CE). Here lie the foundations of the English language and the origins of social, political and religious institutions that would help to shape the next thousand years in England. Translations do not do this writing justice, and so we will learn to read Old English in the original. In doing so, we will gain special insight into the English language. No previous experience is expected or required.
ENG 315 Romance and Dream Vision in Medieval England: The Sacred and the Profane

3-3-0
Romance and dream vision represent two of the most significant genres of medieval literature. Both are well represented by major texts in Middle English whose subjects range from sophisticated philosophical and religious themes to social comedy and pure escapism - often all within the same work. The focus of the course will be on reading primary texts in Middle English within their particular literary, social, and historical contexts.

ENG 320 Sixteenth-Century Poetry and Prose: Exploration and Discovery

3-3-0
After nearly a century of civil war, England under the Tudors experienced a period of relative peace and stability and an opportunity for cultural catching up. The writers of the time confronted a broad range of ideas and phenomena associated with the European renaissance and the intensified exploration by Europeans of the world beyond their continent. They needed to think about their relationships to classical civilization, to the peoples and places described by travelers and explorers, and to the other within their midst as mediated by the powerful influence of Petrarch on the ideas and practices associated with the erotic. The course will examine some of the ways in which writers of the sixteenth century both responded to these relationships and shaped them.

## ENG 321 Seventeenth-Century Poetry and Prose:

## Civil War and Revolution

3-3-0
The seventeenth century was a period of intense political, social, and religious conflict that finally resulted in the outbreak of civil war. The course will examine some of the ways in which the writers of the period divided themselves according to the large lines of the conflict between parliament and the crown, their contributions to the parties to which they adhered, and their reflections on the divisions that tore their society apart.
ENG 332 18th-Century Literary Journeys
3-3-0
In this course we shall examine a diverse range of 18th-century texts that have one thing in common: each uses travel as a plot-triggering device. We will begin the course with a reflection on what travel is, what forms it takes, and why we do it. We shall then consider why travel is such a pervasive narrative form in post-Restoration Britain. Among issues to be considered are contemporary debates on human nature and civilization, as well as relationships between scientific, historical, commercial, and colonial discourses in an age of vigorous exploration.
ENG 333 Eighteenth-Century Georgian Literature:
Town, Country, Nation
3-3-0
In this course we examine a diverse range of literary texts that map England's dominance as a world power. We discover how the stability provided by George I, George II, and George III influenced the drama, poetry and novels of this period in unexpected ways.
ENG 342 Revolution and Romanticism
3-3-0
In this course we will examine the prose writings of the British Romantics from 1789-1832. Readings will explore a variety of topics generated by the French Revolution and the ensuing period of intense political anxiety and intellectual activity. Works by Paine, Burke, Wollstonecraft and Godwin will be examined.
ENG 347 Early Romantic Poetry: Revolutionary Experiments 3-3-0 Poetry of the early Romantic Period (1780-1800) by poets such as Blake, Smith, Robinson, Wordsworth, Coleridge, Williams and Burns. Particular attention will be paid to the social and political role of the poet, poetic form, imagination, inspiration, "masculine" and "feminine" romanticism.

ENG 348 Later Romantic Poetry: The Egotistical Sublime 3-3-0 Poetry of the later Romantic period (1800-1832) by poets such as Byron, Baillie, Keats, Shelley, Hemans and Clare. Particular attention will be paid to the social and political role of the poet, poetic form, imagination and inspiration.

## ENG 350 Ghosts in the Machine:

Technology, Media and Literature in Victorian England 3-3-0
This course investigates the pervasive influence of machinery on Victorian literature and culture. We'll ask how technological advancements in the fields of industry, information technology and popular entertainment changed the way Victorians thought about consciousness, labour, class, spirituality and sexuality. In addition to studying a range of nineteenth-century media, from poetry and prose to photography and early cinema, we'll also explore how contemporary culture-in genres such as sci-fi and steampunk-has worked to revision and mythologize Victorian technology.
ENG 351 Late Victorian Poetry and Prose: Against the Grain 3-3-0 This course examines the way late Victorian poets and prose writers overturned many of the cherished assumptions of High Victorianism. The poetry of Arnold, Fitzgerald, the Rossettis, Meredith, and Hardy will be studied in relation to prose writings of Pater, Huxley, Morris, and Wilde
ENG 352 Canadian Literature and Theories of Globalization 3-3-0 This course will consider twentieth-century Canadian literature in the context of recent theories and aspects of globalization. We will read work by some of the important scholars who have contributed to these debates, including Anthony Giddens, David Harvey and Arjun Appadurai. Their theories will provide the framework of discussion, which will focus on immigrants and immigration, diaspora formation, experiences of alienation and racism, multiculturalism, evolving conceptualizations of Canadian citizenship, and other related themes.

ENG 353 Boy Meets Girl: Masculinity Scholarship, Feminist Theories, and American Literature

3-3-0
The first National Women's Rights Convention, in Worcester, Massachusetts, was held in 1850: it signaled the emergent figure in popular culture referred to as the "New Woman." But the evolution of the "New Woman" meant complications for the role of and confusion for men. Using masculinity scholarship and feminist theories, we will explore how the male and female figure appeared in (previously) asymmetrical or imbalanced relationships, and constructions of family, race, and masculinity and femininity.

## ENG 356 Early Nineteenth-Century American Literature 3-3-0

This course examines the work of American writers from 1820 to 1860, including Irving, Hawthorne, Poe, Melville, Douglass, Emerson, Thoreau, and Davis. Topics to be investigated include madness, Puritanism, slavery, the situation of women, society, the nature of the universe, the natural world, and expediency versus absolutism.
ENG 357 Late Nineteenth-Century American Literature 3-3-0 This course examines the work of American writers from 1860 to 1900, including Crane, Twain, James, Chopin, Whitman, Dickinson, and others. Topics to be investigated include the Civil War, Naturalism, race, Native peoples, the American identity, the situation of women, and insanity.

ENG 358 Approaches to Indigenous Literary Cultures in Canada 3-3-0 This course will examine theoretical approaches to Indigenous literatures in Canada. It will begin by looking at literary developments from oral to contemporary written literary forms, and how the latter developed in response to colonial contact. Authors may include Thomas King, Lenore Keeshig Tobias, Eden Robinson, Armand Ruffo, Warren Cariou, and Tomson Highway.
ENG 359 Approaches to Canadian Culture (Canadian Studies) 3-3-0 This course will examine a range of aesthetic representations (Canadian "wilderness," historical events, Indigenous cultural imagery, and so forth) that are conceived of as indigenous to Canada. These representations, as they have evolved from the late nineteenth to the early twentieth century, will include the cultural production of Canadian writers, painters, film directors, and musicians in order to demonstrate the (often conflicting) social and political ideological structures from which these artists operated.
ENG 360 Low Modernism: Taste, Waste, and the Marketplace 3-3-0 Discussions of literary Modernism often turn upon the distinctions between high and low culture; but what, exactly, is "low" modernism? In this course we'll question assumptions about modernist literature's hostility to popular culture, exploring how writers participated and engaged (if ambivalently) with the tastes, conventions, and experiences of mass culture. Against a monolithic vision of Modernist aesthetics as reactionary, difficult, abstract and austere, this course aims to take pleasure seriously, reading the canon of Modernism (Joyce, Eliot, Woolf) in boisterous conversation with popular forms of entertainment, guilty pleasures, camp and kitsch.
ENG 361 British Poetry After 1930: Explorations in Identity 3-3-0
This course surveys the post-modern development of British poetry. Auden, Lewis, Spender, MacNeice, Thomas, Larkin, and Hughes will be studied in relation to such topics as the Depression, Communism, Futurism, neo-Romanticism, the Second World War, post-colonialism, and violence.
ENG 375 Colonial Narratives
3-3-0
In this course, we will examine the narration of colonial experiences in various world and historical contexts. Our reading will range from the nineteenth century imperial fictions of Rudyard Kipling and Henry Rider Haggard to a selection of postcolonial texts dealing with the cultural impact and legacy of British imperialism in the Caribbean, India, Kenya, Nigeria, and Ireland. Our discussions will be informed by readings in postcolonial theory.
ENG 381 The Evolution of the Fairy Tale in Literature and Film 3-3-0 This course will investigate how one kind of text, the fairy tale, a genre supposedly appropriated from the oral culture of peasants, has been modified and reworked to suit a wide range of other cultural contexts. By investigating both the production and reception of fairy tales - within the literary culture of the court of Louis XIV and of 19th century England, in the folklore movements of 19th century Germany and Britain, in children's culture from the late 19th century to the present, throughout American movie culture in the 20th century, and within late-20th century feminist circles - we will see how this genre so focused on the image of metamorphosis has itself been transformed and used in radically liberating or deeply repressive ways.

## ENG 382 Screenwriting

3-3-0
This course introduces students to the art and techniques of screenwriting for a variety of contexts and genres, such as feature films and television drama. Through critical analysis of existing screenplays and the shows and films that derive from them, students will gain an understanding of the narrative and stylistic conventions of screenwriting and will apply their understanding in the development of their own creative projects.

## ENG 383 Digital Filmmaking

3-3-0
Combining their own technological resources (cell phones, laptops) with the university's, students will develop skills in the fundamentals of digital filmmaking: directing for film, camerawork, sound recording, production design, lighting, picture editing, and post-production sound. They will work in groups and individually to tight schedules, in a variety of genres, including documentary, narrative, and experimental film.

## Prerequisites: ENG 382, DRA 281 or permission of instructor

ENG 384 Documentary Filmmaking
3-3-0
This film production course is designed to help students understand, analyze and produce documentary films. Over the course of the term, students will work independently and in groups on practical exercises and the production of several short documentary films. Lectures will introduce students to documentary scripting and workflow. Class discussions and screenings will address the theoretical and ethical challenges particular to the documentary process. Workshops will familiarize students with the university's production resources and develop essential technical skills such as interview setups, hand-held cinematography, location sound recording, and editing.
ENG 385 News Editing and Ethics
3-3-0
Fast, Fair and Factual. Learning the nuances of news editing is an art that requires lots of practice, but will make you a better writer in the process. Editors act as gatekeepers to ensure credibility in the news and to keep the news outlet from getting into legal trouble. Editing techniques for print, broadcast and online newswriting will be a major part of class, combined with discussions of ethical standards in journalism. Students will also study current and past legal cases that affect journalism and learn about laws governing libel, privacy, copyright, and obscenity.
Prerequisites: ENG 285 or ENG 286
ENG 390 Restoration Literature: Sex, Politics and Intrigue $\quad$ 3-3-0 An investigation of a selection of literature produced during the Restoration period. A period marked by the return of the English monarchy to power in 1660 and the ensuing debate in all literary genres about political turmoil, kingship, power, and sexuality.
ENG 450 Experiential Learning: Journalism
3-0-10
A practical course in composing news copy and assisting in the production of a commercial newspaper. Specific duties will be negotiated between the English Department and the newspaper.
ENG 454 Experiential Learning: Broadcast Journalism 3-0-10
A practical course in composing news copy and producing radio news programming. Specific duties will be negotiated between the English Department and the radio station.
ENG 456 Communications: Analysis, Design, and Implementation 3-3-0 This course challenges students to design a communications strategy based on the needs and profile of the projects they are assigned. Students analyze communications strategies with the help of industry experts, work together to design a communications plan tailored to the needs of the project, and implement the strategy. Students are trained on the most up to date industry standard design software with mentorship from communications professionals. Students have an opportunity to develop skills and competencies in some of the following professional fields: social media strategies; strategic marketing and guerrilla advertising; communications strategies \& platforms; copyrighting and professional writing; metrics and segmented narratives; website content design and optimization; fundraising.
Admittance into the course is limited and therefore subject to instructor permission.

ENG 457 Magazine Editing and Publishing
3-3-0
This experiential course focuses on effective editing of magazines, with a primary focus on magazine articles (sometimes referred to in the industry as substantive editing) to build capacities for writing both style and content, grounded in the liberal arts. Skills developed in this course include assigning or acquiring manuscripts; tailoring content for specific readerships; coaching writers according to their individual strengths and weaknesses; editing for completeness and clarity; effective cutting and silken transitions; and use of imagery, anecdote, and a variety of voices and rhythms to delight and provoke readers. Students will form an editorial board and work together to design and launch a magazine (e.g. Be you @ BU for the Recruitment Office, BU Alumni Magazine for the Advancement Office, etc). This course is invaluable for anyone planning to edit longer manuscripts, explore the magazine industry (online or in print), and for aspiring professional writers.
Admittance into the course is limited and therefore subject to instructor permission.
ENG 458 Experiential Learning: Literary Journal Editing $\quad \mathbf{3 - 0} \mathbf{- 1 0}$ A practical course in editing The Mitre. Specific duties will be negotiated between the English Department and the Student Representative Council.

## ENG 459 Experiential Learning: Public Scholarship and

 Academic Editing and Publishing3-3-0
A practical course in the assessment, editing and publication of undergraduate academic work. In consultation with a faculty advisor from the English Department and the QUEUC conference coordinator, the student will coordinate the selection of student papers for the conference and oversee the subsequent publication of conference proceedings.

ENG 460 Senior Seminar 3-3-0
Advanced studies on a special topic.

## ENG 461 Senior Seminar: Poetry

An advanced writing course taught by a professional writer.
Prerequisites: One of DRA 281, DRA 282, ENG 200, ENG 201, ENG 203, ENG 204, ENG 285, ENG 286, ENG 382 and ENG 209 or permission of the chair. Note: Enrolment may be restricted to senior students enrolled in the English Minor in Creative Writing and Journalism. Normally only one Senior Seminar is offered each year.

## ENG 462 Senior Seminar: Fiction

An advanced writing course taught by a professional writer.
Prerequisite: ENG 209 or permission of the chair:
Note: Enrolment may be restricted to senior students enrolled in the English Minor in Creative Writing and Journalism. Normally only one Senior Seminar is offered each year.
ENG 463 Senior Seminar: Screenwriting
An advanced writing course taught by a professional writer.
Note: Enrolment may be restricted to senior students enrolled in the English Minor in Creative Writing and Journalism. Normally only one Senior Seminar is offered each year.
ENG 464 Senior Seminar: Journalism
An advanced writing course taught by a professional writer.
Note: Enrolment may be restricted to senior students enrolled in the English Minor in Creative Writing and Journalism. Normally only one Senior Seminar is offered each year.
ENG 471 Honours Research Proposal
The preparatory stage of an individual specialized research project on a topic chosen by a student under the supervision of a member of the English Department. The student will develop a research proposal, an annotated Bibliography, and a 12-15 page essay on the initial findings of the project.

## ENG 472 Honours Thesis

3-0-0
Continuation of ENG 471. The student will complete the research agenda detailed in ENG 471, and present the findings In the form of a thesis. An oral examination will be required, and the thesis will be assessed by three members of the English Department.
Prerequisite: ENG 471

## English Language Studies

The English Language Section of the Modern Languages Department offers courses in composition, oral expression, and English as a second language. All courses have in common the aim of assisting students in all disciplines to improve their understanding of English language and communication.

## English Composition

## General Information

Intended for students who have already demonstrated proficiency in English, courses designated ELA (English Language) may be taken as free electives in any program. ENG 116: Effective Writing (or, alternatively, a course in English literature) is recommended for first-year students in the Division of Natural Sciences and Mathematics, but ENG 116 is open to all students who wish to improve their written communication.

ENG 116 may be taken by advanced level ESL students as part of a Major in Modern Languages, a Minor in English Language Studies, or a Certificate of Proficiency in English as a Second Language.

## List of Courses

ENG 116 Effective Writing
3-3-0
This course is designed for students who have already achieved a basic competence in writing. Students will read a variety of texts of different genres so as to become familiar with various types of academic and professional discourse. Students will be encouraged to analyse writing strategies, content, organization, and style with a view to improving their overall writing abilities. Students will also be made aware of different writing situations, particularly those that may arise in their own disciplines.
Prerequisite: Students are normally expected to have achieved a result of at least "5-" on the EWP Exemption Credit Examination before they attempt ENG 116. Students who need a course in basic writing are encouraged to register in the course English Writing Proficiency (EWP 099).

## English as a Second Language

English as a second language courses at the 100 and 200 level may be taken as free electives in any program, or they may be taken towards a Major in Modern Languages (English Language Studies Component), a Minor in English Language Studies, or a Certificate of Proficiency in English as a Second Language.

## Major in Modern Languages: <br> English Language Studies Component and Minor in English Language Studies

## Minor in English Language Studies

In order to be accepted into these programs, students must have attained at least an intermediate level of competence in English. This level will be established according to the following criteria:

1) A result of over $40 \%$ on the Bishop's University E.S.L. placement test.
and
2) Successful completion of two CEGEP English Courses at the 604-100 level (normally 604-101 \& 604-102).
or
3) A result of 480/157-525/206 on the TOEFL test.
or
4) A result of 575-690 on the TOEIC test.
or
5) A result of 4.5-5.5 on the IELTS test.

Students may also enter the Major/Minor Programs at the advanced level, which will be defined according to the following criteria:

1) A result of over $65 \%$ on the Bishop's University ESL placement test.
and
2) Successful completion of two Cegep English courses at the 604-100 level, including Anglais 604-102 and 604-103, with an average of over $75 \%$ in each.
or
3) A result of over 525/206 on the TOEFL test.
or
4) A result of over 690 on the TOEIC test.
or
5) A result of over 5.5 on the IELTS test.

These criteria will be subject to periodic revision by the Modern Language s Department. Please inquire at the Admissions Office for current requirements.

In all cases, the University's standards will prevail. The University reserves the right to deny admission into these courses and programs to students who are already proficient in English. The University also reserves the right to reassign students to different levels/courses/ programs should in-class performance be inappropriate for the level of instruction. Students who have completed a university program with English as the language of instruction will not normally be eligible for English Language Studies programs or ESL courses.

## Course Groupings for Modern Languages Major (English Language Component) and Minor in English Language

## Group I: Core Courses

ESL 103: Intermediate English as a Second Language I
ESL 104: Intermediate English as a Second Language II
ESL 110: Introduction to English for Academic Purposes I
ESL 111: Introduction to English for Academic Purposes II
ESL 210: Advanced Writing and Text Analysis
ESL 211: Advanced Communicative Skills I

## Group II: Special Purposes/Special Focus Courses

ESL 121: English Grammar I: Tense and Idiom
ESL 122: English Grammar II:
Tense/Stylistic and Text Analysis
ESL 125: English Phonetics and Pronunciation

ESL 126: Oral Discourse I
ESL 127: Oral Discourse II
ESL 131: Business English
ESL 212: Advanced Communicative Skills II
Group III: Writing, Literature, Translation Courses
ENG 100: Introduction to English Studies
ENG 104: Approaches to Short Fiction
ENG 108: The American Short Story
ENG 110: English Writers of Quebec
ENG 111: Canadian Short Story
ENG 116: Effective Writing
ENG 202: History of the English Language
FRA 301: Stylistique et traduction I
FRA 302: Stylistique et traduction II
NB: Any English Literature (ENG) course may count towards the Group III requirements, although we recommend first-year courses, in particular ENG 104, ENG 108, ENG 110, ENG 111. With the permission of the Modern Languages Department, very advanced ESL students may substitute ENG courses for one or more of their Group II requirements.

## Major in Modern Languages: English Language Studies Component Requirements

All students undertaking the English Language Studies Component of the Major in Modern Languages must complete 30 credits from course groups I, II, and III.

## Intermediate Level Students:

Students entering at the intermediate level must complete four of the courses ( 12 credits) in Group I including ESL 210 and ESL 211; three courses ( 9 credits) in Group II; and three courses ( 9 credits) in Group III, including ENG 116: Effective Writing.

## Advanced Level Students:

Students entering at the advanced level must complete ESL 210 and ESL 211 or ESL 212 ( 6 credits) in Group I; four courses ( 12 credits) from Group II; and four courses ( 12 credits) from Group III, including ENG 116: Effective Writing. NB: FRA 301 or 302 may be taken only by those students who are combining the English Language Studies and the French components of the Major in Modern Languages, and these courses may be counted only once towards the Major.

## ELA-ENG Concentrations

Advanced level students may choose a modified concentration offered by the English Department, in either Literature or Film and Media Studies. Students must take ESL 210, 211, and ENG 116, then two English foundation courses and then five 200 or 300 level English courses in the concentration (including some specific courses where applicable). If students already possess strong writing skills in English they may be excused from the ESL/ ELA component and take the regular stream recommendations.

Please Note: Students are not permitted to double-count courses from other Language Sections for the following concentrations.

## Literature Concentration

ESL 210, ESL 211, ENG 116; two foundation year courses (ENG 106 and one of ENG 105, ENG 112, or ENG 113); five 200 or 300 level ENG courses with a focus on Literature.

## Film and Media Studies

ESL 210, ESL 211, ENG 116; two foundation year courses (ENG 102, and one of ENG 100, ENG 112, or ENG 113); ENG 236, ENG 279, ENG 291 and DRA 170 (12) credits; one other ENG (film) course.

## Minor in English Language Studies

## Requirements

Students pursuing a Minor in English Language Studies must complete either 30 credits (if they enter at the intermediate level) or 24 credits (if they enter at the advanced level) according to the following stipulations.

## Intermediate Level Students:

Students entering at the intermediate level must take four of the core courses ( 12 credits) in Group I including ESL 210 and ESL 211; (NB: Results of over 65\% must be achieved in ESL 103, ESL 104, ESL 110 or ESL 111 before students may take ESL 210 and ESL 211).

## Advanced Level Students:

Students entering at the advanced level must take ESL 210 and ESL 211 ( 6 credits) in Group I.

All students must complete four courses (12 credits) from Group II and two courses ( 6 credits) from Group III, including ENG 116: Effective Writing. (NB: For other courses in group III, permission may be required from the Chair of the appropriate department).

## Certificate of Proficiency in English as a Second Language/Intensive English Language Studies

The Certificate of Proficiency in English as a Second Language may be pursued part- or full-time in the English Language Studies program and it comprises a sequence of courses in English as a Second Language. English Language and Composition, and/or English Literature.

Students who complete the Certificate will have attained a level at which they are capable of taking university course s in English, in addition to being able to use English comfortably on the job and in their leisure activities.

## Admissions requirements:

Students at all levels may register for the certificate program; however, students must normally have reached an intermediate level of competence before being admitted to full-time status.

Please note: Students entering certificate/intensive studies at the beginning or intermediate level may not be able to complete all program requirements in two regular sessions.

## Certificate Requirements

10 courses according to the following regulations and a cumulative average of $65 \%$ in courses taken towards the Certificate.

## Group I

The following six courses are required (depending upon the level of entry into the program):
ESL 70 English Second Language: Beginners I
ESL 102 Beginners English as a Second Language II
3-3-0 EXT

ESL 103 Intermediate English as a Second Language I
3-3-0
3-3-0
ESL 104 Intermediate English as a Second Language II 3-3-0
Note: ESL 110 and ESL 111 (Introduction to English for Academic Purposes I and II) may be substituted for ESL 103 and ESL 104.
ESL 210 Advanced Writing and Text Analysis 3-3-0
ESL 211 Advanced Communicative Skills I 3-3-0
Following the result obtained in the Bishop's University ESL placement test, students may be exempted from some or all of the following courses: ESL 070, ESL 102, ESL 103, ESL 104. To replace these exemptions, students may choose courses from group III.

All students in the Program must complete ESL 210 and ESL 211.

## Group II

A minimum of three courses must be chosen from the following:
ESL 121 English Grammar I: Tense and Idiom 3-3-0
ESL 122 English Grammar II: Tense/Stylistic and Text Analysis 3-3-0
ESL 125 English Phonetics and Pronunciation 3-3-0
ESL 126 Oral Discourse I 3-3-0
ESL 127 Oral Discourse II 3-3-0
ESL 131 Business English 3-3-0
ESL 212 Advanced Communicative Skills II 3-3-0

## Group III

At least one course must be chosen from the following:
ENG 116 Effective Writing
ELA 201 Applied Communications and Rhetoric
ELA 202 Speech
Any course with an ENG code.

## English as a Second Language

## Course Descriptions

## Extra-Degree Credit Course

The following course is offered through the Office of Continuing Education in the evening and during the summer for extra-degree credit. THIS COURSE MAY NOT BE COUNTED TOWARDS DEGREE REQUIREMENTS.
ESL 70 Beginners I 3-3-0 (extra-degree credit)
Students entering this level have had a limited exposure to the language and have little or no ability to communicate. The purpose of the course is to provide students with a knowledge of the basic sounds and structures of the language along with a confidence which will permit them to begin to have meaningful exchanges in the English-speaking world. Through various communicative activities and exercises in grammar and pronunciation, students develop basic listening and speaking skills. At this level, reading and writing are used primarily to assist in the acquisition of the structures of the language. Upon completion of this course students should be able to understand and respond to communication of a simple, specific nature.
Entry level: 0\% to $28 \%$ on the placement test

## Full-Credit ESL Courses

The following courses are offered both by the Office of Continuing Education (in the evening, summer and in various intensive programs) and by the Department of Modern Languages, Literatures, and Cultures (English Language Section) in the regular day programs.
ESL 102 Beginners English as a Second Language II 3-3-0
This course is intended for students who have already been exposed to the language, have a rudimentary understanding of its sounds and structures, and are able to communicate basic messages. The emphasis is on understanding and speaking, while students begin to participate actively in communication exercises and activities. Students are also introduced to simple reading and writing activities. Upon completion of this course, students should be able to function in a variety of real-life situations, and they should have a good knowledge of the basic structures of the language.
Prerequisites: $29 \%$ to $40 \%$ on the Bishop's ESL placement test or $65 \%$ or over in ESL 070.

ESL 103 Intermediate English as a Second Language I 3-3-0
This course is for students who are able to communicate yet need additional exposure to the basic structures and functions of the language. Students participate in speaking, listening, reading, and writing activities which demand increasing independence and concentration. Upon completion of this level, students should be able to produce simple, clear written texts and convey a desired oral message in a variety of social, occupational, and educational contexts. They should also have developed an awareness of some of the more complicated structures of the language.
Prerequisites: $41 \%-52 \%$ on the placement test or $65 \%$ or over in ESL 102 Antirequisite: ESL 110

ESL 104 Intermediate English as a Second Language II 3-3-0
This course is for students who are able to communicate with confidence in a variety of situations yet wish to improve their knowledge of and proficiency in the more complicated structures and functions of the language. Basic structures are reviewed at this level, but the main emphasis is on introducing students to more unusual grammatical and idiomatic structures and to more complex tasks and materials. Students are exposed to a greater variety of reading sources and are required to write texts with increasing accuracy. Upon completion of this level students should be able to engage in extended discourse in a variety of social, occupational, and educational contexts.
Prerequisites: 53\%-65\% on the placement test or $65 \%$ or over in ESL 103
Antirequisite: ESL 111

ESL 110 Introduction to English for Academic Purposes I 3-3-0
This is a broadly focused course designed to familiarize students with the varieties of English that they will encounter in an academic milieu, and give practice in the skills that are essential to this milieu: comprehending lectures, reading texts of varying length and complexity, note-taking, summarizing, paraphrasing, presenting brief seminars. In addition, students will write and revise short texts with the aim of improving their command of grammar and vocabulary.
Entry level: $41 \%-52 \%$ on the placement test.
Antirequisite: ESL 103
ESL 111 Introduction to English for Academic Purposes II 3-3-0
This course is a continuation of Introduction to English for Academic Purposes I. Students will continue to be exposed to a wide variety of materials and will continue to improve in the four main skill areas: listening, speaking, reading, and writing. However, the emphasis at this level will be placed on activities of increasing complexity which require a greater degree of autonomy.
Pre- or corequisites: $53 \%-65 \%$ on the placement test, $65 \%$ in ESL 110, may be taken concurrently with ESL 110.
Antirequisite: ESL 104
The passing grade for these courses is 50\%; however, students will not be permitted to take advanced core courses until they have demonstrated adequate ability through achieving $65 \%$ or over in at least two 100-level ESL courses.
ESL 113 ESL for Special Purposes - Beginner Level $\quad$ 3-3-0
This beginner level ESL course will address specific needs of students - for example ESL for Tourism and ESL for Arts and Culture - both within and outside of the BU community. As such, the content will vary from semester to semester. Prerequisites: ESL 070 or ESL 102 or tested level
ESL 114 ESL for Special Purposes - Low- Intermediate Level 3-3-0 This low-intermediate level ESL course will address specific needs of students - for example ESL for Tourism and ESL for Arts and Culture - both within and outside of the BU community. As such, the content will vary from semester to semester.
Prerequisites: ESL 103 or ESL 104 or tested level

## ESL 121 English Grammar: Tense and Idiom

3-3-0
This course provides a comprehensive review of the basic tense systems in English, while focusing on grammar at the phrase and sentence level. Presentation of grammatical material will be contextualized and reinforced by oral and written exercises. Students will also learn phrasal verbs and various idiomatic features of the language (prepositions, gerund and infinitive collocations, article use).
Prerequisite: Over $40 \%$ on placement test

## ESL 122

## Advanced English Grammar:

Tense, Stylistic and Text Analysis
3-3-0
This course provides an examination of more complex aspects of English grammar (particularly tense), and the features of the language which contribute to text coherence. In addition, students will develop an understanding of the factors that influence style and structure in written texts, and register in spoken texts. They will also learn to employ different reading strategies to suit various texts and rhetorical situations.
Prerequisite: Over $40 \%$ on placement test
ESL 125 English Phonetics and Pronunciation
3-3-0
This course is designed to provide students with an in-depth knowledge of the stress, rhythm and intonation patterns of English. In doing so, it will assist students in their understanding of variations in formal and informal spoken English, and in improving the accuracy of their spoken language. Students will learn the International Phonetic Alphabet.
Prerequisite: Over $40 \%$ on placement test

## ESL 126 Oral Discourse I

3-3-0
In this course students will encounter different types of oral discourse and learn the organizational and presentation strategies necessary for effective oral communication. Although some emphasis will be placed on oral comprehension, most of the activities will provide students with practice in direct address before a group with special emphasis on effective organization of ideas and clear delivery. Prerequisite: Over $40 \%$ on placement test
ESL 127 Oral Discourse II
3-3-0
This course continues to focus on the objectives of Oral Discourse I. However, at this level students will be exposed to texts of greater complexity, and there will be an increasing emphasis on more demanding rhetorical situations. Students will analyse speeches, engage in debates and impromptu and extemporaneous presentations. Students will also carry out research on current issues and engage in related discussions.
Prerequisite: Over $40 \%$ on placement test

ESL 131
Business English
3-3-0
This course will focus on improving business communication skills. Objectives will include the effective writing of e-mail correspondence, memos, business letters, and reports; effective oral communication in various settings on the telephone, in meetings, in debates and discussions. Students will also encounter videos, readings and discussions dealing with topics such as customer services, leadership, stress management, sexual harassment.
Prerequisite: Over $40 \%$ on placement test
ESL 200 Supplementary Advanced Writing and Text Analysis 3-3-0
This course is intended for students who have already studied at the advanced level yet need to achieve a more thorough mastery of the required competencies. Students will read a variety of texts from popular and academic sources and analyse them for grammar, structure, and rhetorical strategies. Students will also learn the conventions of the academic essay and the characteristics of English style and discourse. Objectives are the same as for ESL 210 (Advanced Writing and Text Analysis), but content is varied for more thorough practice of the necessary skills.
ESL 201 Supplementary Advanced Communicative Skills I 3-3-0 This course is intended for students who already studied at the advanced level yet need to achieve a more thorough mastery of the required competencies. Students will be exposed to more complex aspects of grammar and communication, more diverse vocabulary and test types, and more challenging listening and reading comprehension activities. There will continue to be a substantial writing component at this level. This may take the form of essays, reports or other assignments, at the discretion of the instructor.
Prerequisites: $66 \%$ or over on placement test of $65 \%$ or over in ESL 111. Permission of instructor required in all cases.

## ESL 210 Advanced Writing and Text Analysis

3-3-0
This course is intended for students who have reached an advanced level of competence. Students will read a variety of texts from popular and academic sources and analyse them for grammar, structure, and rhetorical strategies. Students will also learn the conventions of the academic essay and the characteristics of English style and discourse.
Prerequisites: $66 \%$ or over on placement test; $65 \%$ or over in ESL 111a; or permission of instructor
ESL 211 Advanced Communicative Skills I 3-3-0
This course is intended for students who have reached an advanced level of competence. Emphasis will be placed on familiarizing students with more complex aspects of grammar and communication, increasing vocabulary and knowledge of different text types, and improving listening and reading comprehension. At the end of this level students should be able to function comfortably in any anglophone environment, whether social, professional, or academic. There will continue to be a substantial writing component at this level. This may take the form of essays, reports or other assignments, at the discretion of the instructor.
Prerequisites: $66 \%$ or over on placement test; $65 \%$ or over in ESL 111; or permission of instructor.

## ESL 212 Advanced Communicative Skills II 3-3-0

This course is a continuation of ESL211 in its approach, focusing on further developing the four language skills: speaking, listening, reading and writing. Additional and more complex grammatical forms will be examined, particularly those which are common in everyday speech and writing but which often prove problematic for even advanced speakers of English as a second language. As with ESL211, practice will take place in a communicative environment. The reading and listening content of ESL212 will focus on English Canadian popular culture, with the intention of providing an introduction to this culture for francophone Quebeckers, exchange students and new Canadians. There will continue to be an extensive writing component at this level.
ESL 213 ESL for Special Purposes - High- Intermediate Level 3-3-0 This high-intermediate level ESL course will address specific needs of students - for example ESL for Tourism and ESL for Arts and Culture - both within and outside of the BU community. As such, the content will vary from semester to semester.
Prerequisites: ESL 110 or ESL 111 or tested level
ESL 214 ESL for Special Purposes - Advanced Level 3-3-0
This advanced level ESL course will address specific needs of students - for example ESL for Tourism and ESL for Arts and Culture - both within and outside of the BU community. As such, the content will vary from semester to semester. Prerequisites: ESL 210 or ESL 211 or tested level

# Études françaises et québécoises 

## Faculty

Sarah Théberge,

B.A. (Université Bishop's), M.A. (Université de Sherbrooke), Diplôme d'études supérieures (McGill), Ph.D. (Université de Sherbrooke) Directrice du département
Simon Gilbert,
B.A. (Université Bishop's), M.A. (Université de Sherbrooke), Doctorant (Université de Sherbrooke)

## Program Overview / <br> Description des programmes

The Département d'études françaises et québécoises puts the emphasis on the acquisition, the quality, and the improvement of the French language at all levels, and intends to serve beginner, intermediate, and advanced students as well as native speakers. The program is composed of five levels, each of which contains a minimum of two grammar and writing courses and one course focusing on oral comprehension and expression. This provides the students with a coherent and logical learning process by the end of which they can understand, read, speak, and write French correctly.

The Department also offers a number of inter and multidisciplinary courses designed for both native and advanced non-native speakers. These courses allow students to progressively master the French grammar and language, and to become acquainted with a variety of cultural movements that are significant to the francophone world. Through the study of the works of meaningful francophone artists, students will better understand and appreciate the history of the francophonie and its evolution.

Le Département d'études françaises et québécoises concentre ses efforts sur l'apprentissage, l'amélioration et la qualité de la langue française pour les étudiant.e.s. de niveaux débutant, intermédiare et avancé ainsi que pour les francophones. Chacun des cinq niveaux proposés comprend un minimum de deux cours axés sur la grammaire et la rédaction, et un sur l'expression et la compréhension orale, l'ensemble assurant aux étudiant.e.s une progression linguistique logique et cohérente au terme de laquelle ils pourront comprendre, parler, lire et écrire le français correctement et avec aisance.

Le département offre également une série de cours inter et multidisciplinaires, destinés aux étudiant.e.s francophones ou allophones avancés, qui permet de mieux maîtriser la langue française, d'acquérir de solides connaissances des divers mouvements culturels ayant marqué la francophonie, et de comprendre et de mieux apprécier les créations artistiques fondatrices de son histoire et de son évolution.

## French Placement Test

Students who have completed Grade 11 French in a Canadian institution should register directly in FRE 140; those who have studied in a francophone institution can only register in the courses with the "FRA" label (below). All other students must take the

Bishop's University French Placement Test before enrolling for the first time in a course given by our department. Hyperlink is available on the Études françaises et québécoises and the Registrarial Services section on the Bishop's website. Test results are valid for a year, and are deleted in May.

Les étudiant.e.s ayant suivi des études à temps complet dans des institutions francophones doivent faire leur sélection parmi les cours précédés du sigle "FRA", et n'ont pas à compléter le test de placement.

Pour toutes questions concernant le Test de placement, veuillez contacter la directrice ou le directeur du département.

## Regulations regarding the Minor, Major, or Honours in French

French as a Second Language courses ("FRE") taken by students prior to their first semester at Bishop's University cannot count for a Minor, a Major, or an Honours in French (other French courses can). French as a Second Language courses taken outside of Bishop's University (such as an immersion course) during the students' stay at Bishop's University must have received the departmental approval before they are undertaken. Students might be requested to take an evaluation test upon completion of those courses in order to receive Bishop's University credits.

## Programs

## Honours in French as a Second

## Language / Honours in Études françaises et québécoises ( 60 crédits) HONFRA

These programs are designed for students who wish to specialize in French as a Second Language or Études françaises et québécoises. Often, but not necessarily, students in these programs are planning to pursue their studies at the Master's level. Each is composed of 60 credits ( 20 courses) with the combined designations FRE and FRA for an Honours in French as a Second Language, and FRA only for an Honours in Études françaises et québécoises. Up to 9 credits (3 courses) in appropriate fields, previously approved by the Department, could be counted as cognates. Students must maintain an average of at least $70 \%$, calculated on the best 60 credits in the Honours discipline (including cognates), in order to graduate with an Honours degree in any Division of Humanities.

Ces programmes sont destinés aux étudiant.e.s désirant se spécialiser en French as a Second Language ou en Études françaises et québécoises. Souvent, mais pas nécessairement, les étudiants qui optent pour ces programmes planifient poursuivre des études au niveau de la maîtrise. Chacun est composé de 60 crédits ( 20 cours) ayant les sigles FRA et FRE combinés pour le Honours French as a Second Language, et FRA seulement pour les Honours en Études françaises et québécoises. Jusqu'à 9 crédits (3 cours) suivis dans des champs d'études connexes peuvent être reconnus par le département. L'étudiant.e doit avoir maintenu une moyenne d'au moins $70 \%$, calculée sur les 60 meilleurs crédits de sa discipline Honours (y compris les cours connexes), pour obtenir un baccalauréat avec mention d'un programme Honours dans toutes les disciplines de la Division des arts et des sciences. Les étudiant.e.s ayant étudié dans des institutions francophones,
ou qui ont déclaré le français comme langue maternelle ou langue d'usage, ne peuvent s'inscrire à une majeure French as a Second Language.

## Major in French as a Second Language (48 credits) MAJFSL

This program is designed for students who wish to become bilingual or pursue a career where a very good knowledge of French is a strong asset.

## Majeure en langue et culture française avec programme d'échange

## (48 crédits)

MAJFPE
La Majeure en langue et culture française avec programme d'échange est un programme qui s'adresse aux étudiant.e.s francophones ou allophones de niveau avancé désirant acquérir les connaissances nécessaires pour bien maîtriser la langue française et explorer les différentes expressions culturelles de la francophonie.

Pour obtenir cette majeure, l'étudiant.e doit avoir complété un nombre minimal de 6 cours ( 18 crédits) précédés du sigle «FRA » et suivis à l'Université Bishop's. Ces crédits devront être combinés à a) des crédits en français obtenus par l'entremise d'un échange en immersion, sur une période d'un ou de deux semestres, à une université partenaire en France (ou dans un autre pays francophone) ou à b) des crédits suivis dans une université francophone partenaire au Québec. Les étudiant.e.s devront s'inscrire à la majeure avant de quitter pour leur échange universitaire et consulter la directrice ou le directeur du Département d'études françaises et québécoises au sujet de leur sélection de cours dans les universités partenaires. Un nombre maximal de deux cours FRE, de niveau 3-avancé, peut être inclus dans cette majeure.

## Major in Modern Languages with a French component / Majeure en langues modernes avec une composante française ( $\mathbf{6 0}$ crédits) MAJMLA+CONFLS

The Major in Modern Languages offered by the Department of Modern Languages requires the completion of 60 credits in two languages ( 30 credits in each language) and French may be chosen as one of the two languages.

La majeure en langues modernes, offerte par le Département des langues modernes, est composée de 60 crédits dans deux langues ( 30 crédits chacune) et le français peut être choisi comme l'une de ces deux langues.

## Certificate in French as a Second

## Language

CONEFS
To obtain the Certificate in French as a Second Language, students must complete 10 courses in FRE French as a Second Language (which might include FRA courses according to the student's level). The B2 level (Common European Framework of Reference for Languages) in all four language competencies (oral comprehension, oral production, written comprehension,
and written production) is mandatory to graduate from this program. Experiential learning components and outings in the local Francophone community are also strongly encouraged in the curriculum.

The objectives of the Certificate in French as a Second Language is to train non-francophone students - mature, immigrant, refugee, second-degree, etc. - in becoming functional and fluent in all four language competencies (oral production, oral comprehension, written production, and written comprehension, and reach the B2 level of the Common European Framework of Reference for Languages (CEFR) or Level 7 of the Ėchelle québécoises des niveaux de compétence en français des personnes immigrantes adultes.

The TEFAQ or the TEF exam, offered at Bishop's University, is strongly recommended as an exit evaluation for the program.

## Minor in French as a Second Language (24 credits) MINFSL

This program is intended for students with little or no French who wish to acquire a good working knowledge of the French language. To complete this minor, students must have at least completed FRE 141 at Bishop's.

## Mineure en Études de la langue française (24 crédits) MINFRA

This program is intended for students with a good knowledge of French who wish to improve their grammar and develop a wider knowledge of the francophone culture. Students in this program can focus on the various language skills and/or on culture and literature courses. To complete this minor, the student should choose 8 courses from our "FRA" offering, although a maximum of two (2) FRE Level 3-advanced courses can be accepted in this minor.

Ce programme de 24 crédits ( 8 cours) s'adresse aux étudiant.e.s francophones ou allophones ayant déjà une bonne connaissance du français et qui désirent améliorer leurs connaissances linguistiques ou acquérir une perspective d'ensemble des cultures francophones. Pour obtenir cette mention sur son diplôme, l'étudiant.e devrait avoir complété 8 cours précédés du sigle «FRA », bien qu'un nombre maximal de deux cours FRE, de niveau 3-avancé, soient acceptés dans cette mineure.

## Independant Studies / Études dirigées

Only students in their last year in the Majeure en langue et culture française avec programme d'échange are entitled, upon proposal of a detailed study plan and with a minimum average of $70 \%$ in their area of specialisation (including cognates), at the end of the previous semester, to request an independent studies with the professor of his/her choice.

Seuls les étudiants et étudiantes en dernière année d'une Majeure en langue et culture française avec programme d'échange (MAJFPE) peuvent, sur dépôt d'un plan d'études détaillé et ayant, à la fin du semestre précédent, maintenu une moyenne minimale de $70 \%$ dans leurs cours de spécialisation (incluant les cours connexes), faire une demande d'études dirigées à la professeure ou au professeur de leur choix.

## Departmental Policy regarding FRE and FRA Courses

FRE courses are French as a Second Language courses and are therefore designed and reserved for non-francophone students. We consider to be francophone a student whose parents (one or both) are native French speakers, and/or a student who has studied full-time, at any moment during his/her schooling, in a francophone institution (aside from immersion programs). If it is discovered, when studying at Bishop's, that a francophone has received credits for one or many FRE course(s), he or she will lose all corresponding credits without reimbursement. Exceptions can be made with a mandatory written permission from the Chair of the Department to register and to obtain credits for an FRE course. Francophone students are allowed to take, without any restrictions other than specific prerequisites, any of the FRA courses offered by our department.

## Politique du département pour les cours FRE et FRA

Les cours FRE sont des cours de français langue seconde. Ils sont conçus spécifiquement pour les non-francophones et leur sont donc réservés. Nous considérons comme étant francophone un étudiant ou une étudiante dont les parents (un seul ou les deux) ont le français comme langue maternelle, et un étudiant ou une étudiante qui aurait étudié à temps plein dans une institution francophone, peu importe le niveau, au cours de son cheminement scolaire (ce qui exclut les programmes d'immersion). Si, par inadvertance, l'Université Bishop's octroyait des crédits FRE à des étudiants ou étudiantes francophones ayant caché la vérité sur leur situation, ces crédits seraient annulés sans remboursement. Avec la permission écrite de la directrice ou du directeur du département, un francophone pourrait faire figure d'exception et suivre un cours FRE (et en obtenir les crédits). Les francophones peuvent s'inscrire à tous les cours FRA offerts par le département. Il faut tout simplement s'assurer d'avoir les prérequis, s'il y a lieu.

## Year by year progression for a student in a Major or a Minor (depending on the entry level) / Progression par année pour un étudiant.e inscrit.e à une majeure ou à une mineure

Culture courses (literature, cinema, sociocultural history, etc.) are offered on rotation.

## Level 1 - Beginners

FRE 100 French I and
FRE 101 French II
or
FRE 190 Intensive French - Level 1 (6 credits)
FRE 115 Introduction to French Phonetics and Aural Comprehension
(optional to advance to Level 2)

## Level 2 - Intermediate <br> FRE 120 French III and <br> FRE 121 French IV

or
FRE 191 Intensive French - Level 2 (6 credits)
FRE 122 Atelier de conversation multiniveau I
FRE 123 Atelier de conversation multiniveau II
FRE 135 Culture and Society. Conversational French I (optional to advance to Level 3)
FRE 136 French Written Communication I
Level 3 -
Advanced (Grade 11 French) /
Niveau 3 - Avancé
FRE 140 Grammatical Review (French V)
FRE 141 Grammatical Review (French VI)
FRE 155 Culture and Society. Conversational French II (optional to advance to FRA courses)
FRE 156 French Written Communication II
MLA 101 Issues in Language and Linguistics (mandatory for Majors / Honours; counts as an FRA course)
FRA 160 Le français, langue des affaires
FRA 165 Textes en contexte : initiation à la littérature française
FRA 166 Textes en contexte : initiation à la littérature québécoise
FRA 181 Histoire socioculturelle du Québec I
FRA 182 Histoire socioculturelle du Québec II
FRA 187 Introduction au théâtre québécois

## Level 4 - Advanced / Niveau 4 - Avancé <br> FRA 136 / DRA 136

Techniques de jeu I
FRA 206 Histoire de la langue française
FRA 208 Histoire du français au Québec
FRA 209 Littérature jeunesse
FRA 227 Le génie de la langue : stylistique comparée du français et de l'anglais (mandatory for Majors / Honours)
FRA 228 Practice Makes Perfect : traduction journalistique et publicitaire
FRA 229 Practice Makes Perfect : traduction administrative
FRA 230 Tout est dans la logique : analyse grammaticale et phrase complexe (mandatory for Majors / Honours)
FRA 247 Rédaction et communication
FRA 252 De la contreculture à la contestation ouverte : les années 1960 et 1970
FRA 253 Contes, légendes et chansons de la francophonie
FRA 285 Roman québécois contemporain
FRA 250 French Cinema
FRA 254 Littérature et cinéma en France
FRA 255 Littérature et cinéma au Québec
FRA 259 Québec Cinema
FRA 256 Les grands classiques du roman français
FRA 257 Les grands moments du théâtre français
FRA 258 La télévision : miroir de la société québécoise
FRA 260 Voyage et littérature

## Level 5 - Advanced / Niveau 5 - Avancé

FRA 307 Traduction générale
FRA 308 Traduction en contexte réel
FRA 309 Assistanat en enseignement du français langue seconde
FRA 310 Tutorat au Centre d'aide en français
FRA 315 Pièges et mystères de la langue française I (mandatory for Majors / Honours)
FRA 316 Pièges et mystères de la langue française II (mandatory for Majors / Honours)
FRA 351 De l'aventure au réalisme: la fiction au $19^{\circ}$ siècle
FRA 353 Littératures migrantes et de la francophonie
FRA 355 Versification : voyage dans la poésie française et québécoise
FRA 385 Teaching in the community - Experiential Learning I

## List of Courses / Liste des cours

## Level 1 - Beginners

## FRE 100 French I

3-3-0
Introduction to the basic structures of the French language. Emphasis is put on pronunciation, exchange of personal information, expressions using the present tense and the near future, knowledge and description of surroundings, and the various question forms. Designed for students who have no or almost no previous knowledge of French.
Prerequisite: according to result in placement test
Antirequisite: previously FRA 131 or FRE 131 or FRE 137
FRE 101 French II 3-3-0
Continuation of French I. Acquisition of new grammatical structures in order to be able to relate past events, tell stories, describe various types of activities, give directions, etc. Introduction to the direct and indirect object pronouns and future tense.
Prerequisite: FRE 131 or appropriate result in placement test
Antirequisite: previously FRA 132 or FRE 132 or FRE 137

## FRE 115 Introduction to French Phonetics

and Aural Comprehension
3-3-0
Designed for real and false beginners, this course aims at improving basic pronunciation (standard French) and to introduce students to real life conversation by a rigorous study of the various categories of sounds, the contrasts and the relationships between phonemes, etc. Oral exercises and aural comprehension activities.
Prerequisite: FRE 100 or FRE 101 or FRE 120 in progress or completed or permission from the Department
Antirequisite: FRE 121 or higher completed or previously FRE 133 or higher completed
FRE $190 \quad$ Intensive French - Level I $\quad \mathbf{6 - 6 - 0}$
This course covers the contents of FRE 100 and FRE 101 in one semester.
Prerequisite: according to result in placement test
Antirequisite: previously FRE 131 or FRE 132 or FRE 137 or FRE 100 or FRE 101

## Level 2 - Intermediate

FRE $120 \quad$ French III
3-3-0
Continuation of French II. Intermediate level course where the students learn to express opinions, emotions, wishes, hypotheses, etc., and create a more complex discourse through the use of relative pronouns. Introduction to the conditional, the subjunctive and the plus-que-parfait (pluperfect). Group discussions focusing on technology and the environment, among other themes.
Prerequisite: FRE 101 completed or appropriate result in placement test or previous FRE 132
Antirequisite: previously FRA 133 or FRE 133 or FRE 138

FRE 121
French IV
3-3-0
Continuation of French III. Introduction to more complex verb tenses and sentence structures (passive and active voice) where the students will learn to express themselves on a wide variety of subjects. Group discussion focusing on media, arts and entertainment, among other themes.
Prerequisite: FRE 101 or FRE 120 or previous FRE 133 or appropriate result in placement test
Antirequisite: previously FRA 134 or FRE 134 or FRE 138
FRE 122 Atelier de conversation multiniveau I
3-3-0
Through the use of authentic cultural texts (audio/audiovisual/written), this course aims at improving global pronunciation (standard French), oral communication, and aural comprehension of real-life conversations by listening to, watching, and analyzing diverse grammatical and cultural material published in French. Class time will focus on oral exercises and aural comprehension activities, and will include volunteer work in the surrounding francophone community.
Prerequisite: FRE 100 completed or permission from the Department Antirequisite: $F R A$ level students
FRE 123 Atelier de conversation multiniveau II 3-3-0
Through the use of authentic cultural texts (audio/audiovisual/written), this course aims at improving global pronunciation (standard French), oral communication, and aural comprehension of real-life conversations by listening to, watching, and analyzing diverse grammatical and cultural material published in French. Class time will focus on oral exercises and aural comprehension activities, and will include volunteer work in the surrounding francophone community.
Prerequisite: FRE 100 completed or permission from the Department Antirequisite: FRA level students
FRE 135 Culture and Society. Conversational French I 3-3-0
This course is designed to improve the quality of spoken French and enhance the vocabulary through a series of interactive activities (aural comprehension, pronunciation, improvisation, role playing, interviews, etc.). Focuses on current events and related topics using francophone newspapers, magazines, and the electronic media.
Prerequisite: FRE 120 or FRE 121 completed or FRE 140 or FRE 141 in progress
FRE 136 French Written Communication I 3-3-0
This course is designed to improve the students' writing skills and increase their vocabulary and their understanding of the grammar learnt at the beginner and intermediate levels. Focus will be put on clarity and simple sentences. A variety of reading and writing tasks will be used to help students develop their abilities.
Prerequisite: FRE 120 or FRE 121 in progress or completed or equivalent in the placement test
FRE 191 Intensive French - Level II
6-6-0
This course covers the contents of FRE 120 and FRE 121 in one semester.
Prerequisite: according to result in placement test
Antirequisite: previously FRE 133 or FRE 134 or FRE 138 or FRE 120 or FRE 121

## Level 3 - Advanced

Students with Grade 11 French in a non-francophone institution should register for FRE 140 (previous FRE 151). There are no prerequisites for francophones for any of the FRA courses.
FRE 140 Grammatical Review (French V) 3-3-0
Intensive review of the basic French grammar, with an emphasis on past tenses and pronouns. Based on a practical approach with multiple aural comprehension, composition and conversation activities.
Antirequisite: previously FRE 151
FRE 141 Grammatical Review (French VI) 3-3-0
Continuation of FRE 140, with an emphasis on the subjunctive mode, the passive voice and the relative pronouns. Based on a practical approach with multiple aural comprehension, composition and conversation activities.
Prerequisite: FRE 121 or Grade 11 French in a Canadian institution or result in placement test
Antirequisite: previously FRE 152
FRE 155 Culture and Society. Conversational French II 3-3-0
Through small group exercises and the use of multimedia, this course focuses on improving fluency in the French language and developing aural comprehension. Emphasis is put on everyday life, current events and cultural manifestations in the francophone world (music, cinema, etc.).
Prerequisite: FRE 121 or FRE 140 or FRE 141 completed or in progress Antirequisite: Completion of a FRA course

FRE 156 French Written Communication II
3-3-0
This course is designed to improve students' written French skills, to sharpen vocabulary and to put into practice the grammar covered in the early stages of the advanced level. Focus will be put on clarity and complex sentences. A variety of reading and writing activities will be used to help students produce idiomatic texts in French in a variety of formats.
Prerequisite: FRE 140 completed or equivalent in the placement test

## MLA 101 Issues in Language and Linguistics

3-3-0
This course will provide students with an overview of issues in the study of languages. It will introduce them to basic concepts in linguistics, familiarize them with the main components of language and common pursuits of linguists, and expose them to some long-standing debates in language study. Course taught in English and offered through the Modern Languages Department.

## FRA 136 / DRA 136

Techniques de jeu I
3-3-0
Introduction aux techniques d'interprétation d'art dramatique à partir de textes, et d'études des bases de la performance scénique. Travail en équipe sur des scènes tirées d'œuvres théâtrales modernes et contemporaines.
FRA 160 Le français, langue des affaires
3-3-0
Rédaction et communication orale en français de correspondances administratives, commerciales et diplomatiques, élaborées selon les exigences culturelles et contextuelles du monde des affaires au Québec. Étude de notions grammaticales et lexicales à partir de modèles de lettres et de communications orales qui respectent les normes de l'Office québécois de la langue française.
Prerequisite: Aucun.
FRA 165 Textes en contexte : initiation à la littérature française 3-3-0 Aperçu de la littérature de la France par le biais d'une série d'extraits représentatifs des grands mouvements culturels et littéraires de son histoire. Initiation à diverses approches critiques et méthodes d'analyse, traditionnelles et contemporaines.
Lectures de textes, rédactions, etc. Ce cours est ouvert aux étudiant.e.s francophones, sans prérequis.
Prerequisite: FRE 140 (or previous FRE 152) or higher completed or FRE 141 in progress or appropriate result in placement test

## FRA 166 Textes en contexte :

initiation à la littérature québécoise
3-3-0
Aperçu de la littérature du Québec par le biais d'une série d'extraits représentatifs des grands mouvements culturels et littéraires de son histoire. Initiation à diverses approches critiques et méthodes d'analyse, traditionnelles et contemporaines. Lectures de textes, rédactions, etc. Ce cours est ouvert aux étudiant.e.s francophones, sans prérequis.
Prerequisite: FRE 140 (or previous FRE 152) or higher completed or FRE 141 in progress or appropriate result in placement test
FRA 181 Histoire socioculturelle du Québec I
3-3-0
Examen des différents aspects de la société québécoise, depuis la NouvelleFrance jusqu'à la Seconde Guerre mondiale. Les découvreurs et l'Amérique, les tentatives de colonisation, les relations avec les Autochtones, la Conqu ête, la Rébellion des Patriotes, la lutte entre le libéralisme et l'ultramontanisme, les influences américaines, les querelles linguistiques, les deux guerres et les crises de conscription, la crise économique de 1929, etc. Lecture de textes d'époque.
Prerequisite: FRE 141 or previous FRE 152 or any course with the designation FRA. No prerequisite for francophones
FRA 182 Histoire socioculturelle du Québec II
3-3-0
Transformations dans la société québécoise depuis la Seconde Guerre mondiale. Le conservatisme de l'époque de Duplessis, la Révolution tranquille et le rejet des valeurs traditionnelles, la contreculture, la montée des idées de gauche et du nationalisme, le mouvement féministe, les problèmes linguistiques, le concept de société distincte, la mondialisation, etc. Lecture de textes représentatifs.
Prerequisite: FRE 141 or previous FRE 152 or any course with the designation FRA. No prerequisite for francophones
FRA 187 Introduction au théâtre québécois 3-3-0
Observation et analyse de l'évolution culturelle du Québec par la fenêtre de son théâtre. La censure du clergé à ses premières heures. L'émergence du vaudeville français et du burlesque américain comme expressions du populaire, en concurrence à la poussée du cinéma muet. Les mouvements de contreculture et les créations collectives durant la Révolution tranquille. L'intérêt renouvelé pour la comédie dans les années 1980. Le théâtre de l'ailleurs et de la fragmentation, le décloisonnement des genres, etc.
Prerequisite: FRE 141 or previous FRE 152 or any course with the designation $F R A$. No prerequisite for francophones

## Level 4 / Niveau 4

Non-francophone students must have at least completed FRE 141, or the previous FRE 152 (or its equivalent in the Placement Test), in order to take courses at Levels 4 and 5.
FRA 228 and FRA 229 are generally offered on a 2-year rotation.
Il n'y a aucun prérequis pour les étudiant.es francophones sauf lorsque spécifiquement indiqué.
FRA 206 Histoire de la langue française 3-3-0
Étude de la langue française, de l'ancien français au français moderne, incluant les tendances contemporaines de la diversité francophone. Approche chronologique et géolinguistique appuyée sur des textes significatifs, des documents sonores et audiovisuels.
Prerequisite: FRE 141 or previous FRE 152 or any course with the designation FRA
FRA 208 Histoire du français au Québec 3-3-0
Étude de ce qui a contribué, dès sa traversée de l'Atlantique au 17 e siècle jusqu'à aujourd'hui, à modeler le français québécois comme variété autonome de français, notamment en ce qui a trait au sens, au lexique et à la prononciation. Le cours s'intéressera aux facteurs sociaux, politiques et culturels de différenciation, mais aussi de rapprochement entre les variétés québécoise et française.
Prerequisite: Aucun.
FRA 209 Littérature jeunesse
3-3-0
Ce cours offre une vue d'ensemble de la littérature jeunesse produite en français au Québec et à l'étranger. Il permet de se familiariser avec cette littérature spécifique, d'acquérir des connaissances théoriques nécessaires à l'analyse d'oeuvres littéraires pour les jeunes, de découvrir les ressources faisant la promotion de la lecture et de développer des compétences critiques permettant de faire des choix judicieux dans l'étendue de cette production.

## FRA 227 Le génie de la langue :

stylistique comparée du français et de l'anglais
3-3-0
Stylistique comparée du français et de l'anglais. Cours d'initiation à la traduction, principalement de l'anglais vers le français, dans lequel les éléments lexicaux, grammaticaux, stylistiques et culturels de ces deux langues seront comparés afin d'approfondir les compétences langagières des étudiant.e.s. Études des différentes méthodes de traduction, des niveaux de langue et des expressions idiomatiques à travers des exercices pratiques.
Prerequisite: FRE 141 or previous FRE 152, or any course with the designation FRA
Antirequisite: Previously FRA 245.
FRA 228 Practice Makes Perfect :
traduction journalistique et publicitaire
3-3-0
Traduction de textes en français et en anglais tirés de la presse et du monde de la publicité. Travail pratique en classe avec différents outils de traduction incluant les ressources en ligne. Études d'idées fondatrices de la traductologie.
Prerequisite: FRA 227 or permission from the Department
Antirequisite: Previously FRA246
FRA 229 Practice Makes Perfect : traduction administrative 3-3-0 Traduction de textes en français et en anglais tirés du domaine administratif et commercial. Travail pratique en classe avec différents outils de traduction incluant les ressources en ligne. Études d'idées fondatrices de la traductologie.
Prerequisite: FRA 227 or permission from the Department

## FRA 230 Tout est dans la logique :

analyse grammaticale et phrase complexe
3-3-0
Apprentissage de la construction des phrases complexes. Étude des diverses composantes d'une phrase et analyse grammaticale dans le but d'apprendre à mieux maîtriser les règles de la syntaxe française. Exercices d'analyse et de rédaction visant à améliorer la qualité de l'expression écrite.
Prerequisite: FRE 141 or previous FRE 152 or any course with the designation FRA
FRA 247 Rédaction et communication 3-3-0
Étude des théories et pratiques de l'écriture, avec une attention particulière portée aux théories de la communication, aux niveaux de langue, aux figures de style et à la présentation des arguments. Seront employés, créés et analysés des textes littéraires, publicitaires, d'opinion, etc.
Prerequisite: FRE 141 or previous FRE 152 or any course with the designation FRA

## FRA 250

French Cinema
3-3-0
From the Lumière Brothers to George Méliès to Émile Reynaud and the Gaumont and Pathé film companies, from the Avant-Garde of the 1920s to the Nouvelle Vague and to the comedies of the early 21 st century, this course explores the French contribution to the evolution of the seventh art, and examines how it came to represent part of its personality and psyche. This course is given in English, but movies are shown in their original language, with subtitles. Honours, majors and minors in French must submit their assignments in French; all other students may submit their work in French or English. FRA 250 does not count towards the Divisional requirement in Languages.

## FRA 252 De la contreculture à la contestation ouverte :

les années 1960 et 1970
3-3-0
Étude des grands mouvements culturels et sociaux ayant marqué les années 1960 et 1970; le baby-boom, l'émergence du joual, la contre-culture, les contestations sociales, etc. Examen de sa littérature, de sa musique, de son cinéma et de son évolution politique. Comparaisons et relations entre le Québec, la France et les États-Unis.
Prerequisite: FRE 141 or previous FRE 152 or any course with the designation FRA
Antirequisite: previously FRA 288
FRA 253 Contes, légendes et chansons de la francophonie 3-3-0
Évolution du concept de l'oralité dans différentes régions de la francophonie en relation avec l'histoire, les sciences et les différents types de manifestations de la culture populaire. Études des fonctions de Propp, des notions de littérarité et de réceptions, de mythocritique ainsi que des sources philosophiques et thématiques des contes, des légendes et des chansons.
Prerequisite: FRE 141 or previous FRE 152 or any course with the designation FRA
Antirequisite: previously FRA 381
FRA 254 Littérature et cinéma en France 3-3-0
Analyse des œuvres significatives du cinéma français de ses débuts jusqu'à aujourd'hui. Étude des genres, des réalisateurs, des acteurs influents et des discours. Observation et discussion de certains thèmes récurrents ou novateurs d'un point de vue sociologique et historique. Lecture de romans ou de nouvelles et analyse de leur adaptation cinématographique.
Prerequisite: FRE 141 or previous FRE 152 or any course with the designation FRA
FRA 255 Littérature et cinéma au Québec
3-3-0
Analyse des œuvres significatives du cinéma québécois de ses débuts à aujourd'hui. Étude des genres, des réalisateurs, des acteurs influents et des discours. Observation et discussion de certains thèmes récurrents ou novateurs d'un point de vue sociologique et historique. Lecture de romans ou de nouvelles et analyse de leur adaptation cinématographique. Survol du genre court métrage. Prerequisite: FRE 141 or previous FRE 152 or any course with the designation FRA

## FRA 256 Les grands classiques du roman français <br> 3-3-0

Survol original de la littérature française à travers les époques et les grands mouvements littéraires (le romantisme, le réalisme, le surréalisme et le modernisme) par le biais de quelques-unes de ses plus belles œuvres romanesques. Mise en lumière de l'impact de ces œuvres sur la société et les mœurs de leur époque. Seront à l'étude des auteurs tels Châteaubriand, Hugo, Colette, Stendhal, Balzac, Sand, Proust, Vian, etc.
Prerequisite: FRE 141 or previous FRE 152 or any course with the designation FRA
FRA 257 Les grands moments du théâtre français 3-3-0
Puisées dans l'imposant répertoire français, les pièces à l'étude serviront d'introduction à l'histoire et à l'analyse de la dramaturgie, en commençant par ceux qui ont contribué à lui donner ses lettres de noblesse: Molière, Corneille et Racine. De ces grands noms de l'époque classique jusqu'au nouveau théâtre (Ionesco, Beckett), en passant bien sûr par le drame romantique (Hugo, de Musset), seront ainsi revisités les moments marquants du théâtre français.
Prerequisite: FRE 141 or previous FRE 152 or any course with the designation FRA
Antirequisite: previously FRA 261

FRA 258 La télévision : miroir de la société québécoise
3-3-0
Par l'étude de ses créations télévisuelles, ce cours explore les idées et les mentalités présentes dans la société québécoise du milieu du 20 e siècle jusqu'à aujourd'hui. L'importance du clergé et de la famille, la notion du survenant et de l'étranger, l'esprit d'indépendance, l'importance de l'enfance, le regard ironique et quelquefois comique posé sur son univers sont parmi les thèmes abordés dans ce cours.
Prerequisite: FRE 141 or previous FRE 152 or any course with the designation FRA
FRA 259 Québec Cinema
3-3-0
This course is given in English, but movies are shown in their original language, with subtitles. Honours, majors and minors in French must submit their assignments in French; all other students may submit their work in French or English. FRA 250 does not count towards the Divisional requirement in Languages.

FRA $260 \quad$ Voyage et littérature
3-3-0
Aperçu de la littérature de voyage par le biais d'une série d'extraits représentatifs des grands écrivains de ce type de récit aux frontières des genres littéraires. Lectures de textes, commentaires, rédactions, créations et analyses littéraires. Une attention sera portée sur l'espace, l'altérité et le soi, éléments centraux du récit de voyage.
Prerequisite: Aucun.
FRA 285 Roman québécois contemporain 3-3-0
La maturité du roman québécois, des années 1970 à nos jours. L'émergence de la littérature migrante, l'engouement pour la littérature jeunesse, le roman urbain et la littérature autochtone produite au Québec. Observation des liens avec le cinéma et la télévision.
Prerequisite: FRE 141 or previous FRE 152 or any course with the designation FRA
Antirequisite: previously FRA 282

## Level 5 / Niveau 5

FRA 307 Traduction générale 3-3-0
Cours de traduction, principalement de l'anglais vers le français, traitant de certaines difficultés d'ordre lexical, syntaxique et rédactionnel spécifiques au français et à l'anglais. Ce cours fera état de plusieurs problèmes de traduction tirés de textes diversifiés et encouragera les étudiants à développer le travail d'équipe. Retour sur les méthodes de traduction et lecture de textes pertinents sur la théorie de la traduction.
Prerequisite: FRA 227 or permission from the Department

## FRA 308 Traduction en contexte réel

3-3-0
Traduction, principalement de l'anglais vers le français, de textes plus complexes en français et en anglais. Travail d'équipe pour lequel les outils de traduction en ligne seront employés. Réflexions métalangagières sur les différentes stratégies utilisées dans la production des textes d'arrivée.
Prerequisite: FRA 227 or permission from the Department
FRA 309 Assistanat en enseignement du français langue seconde 3-3-0 Ce cours permet aux futurs enseignants et enseignantes du français langue seconde (et autres étudiants francophones ou niveau équivalent) de gagner de l'expérience en salle de classe, tout en bénéficiant d'une supervision formatrice. Les étudiants et étudiantes participeront à la préparation du cours, à l'enseignement de notions grammaticales, à l'animation de discussions, à la création de grilles d'évaluation et à la correction de présentations orales et autres types d'évaluations. Initiation aux outils pédagogiques numériques.
Prerequisite: FRA 200 level
FRA 310 Tutorat au Centre d'aide en français
3-3-1
Ce cours permet aux futurs enseignants et enseignantes de français langue seconde (et autres francophones ou niveau équivalent) de travailler en situation d'enseignement individuel, dans le but de parfaire le rendement de leurs connaissances, tant à l'oral que dans la préparation des activités. Initiation aux outils pédagogiques numériques.
Prerequisite: FRA 200 level

FRA 315 Pièges et mystères de la langue française $I \quad$ 3-3-0
Cours de grammaire avancée qui s'attarde sur les difficultés particulières de la syntaxe de la langue française, ses exceptions, ses anomalies, etc. Ce cours vise également à corriger les erreurs les plus fréquentes présentes tant chez les francophones que les apprenants de langue seconde.
Prerequisite: FRA230 for non- francophones
Antirequisite: previously FRA 207 or FRA 244 or obligatoire pour les étudiant.e.s en enseignement.
FRA 316 Pièges et mystères de la langue française II 3-3-0
Suite du cours FRA 315 avec, en complément, une révision des notions de la
Nouvelle grammaire et une introduction à la nouvelle orthographe.
Prerequisite: FRA 230 for non-francophones
Antirequisite: previously FRA 207 or FRA 244 or obligatoire pour les étudiant.e.s en enseignement.
FRA 351 De l'aventure au réalisme : la fiction au 19 ${ }^{\mathrm{e}}$ siècle 3-3-0 Lecture et observation des œuvres romanesques les plus marquantes du $19^{\text {e }}$ siècle, tant en France qu'au Québec, en lien avec les grands courants culturels de l'Histoire. Un intérêt particulier sera porté à ces œuvres qui représentent des aspects particuliers des goûts et des modes de vie de ce siècle. Approche multidisciplinaire incluant la peinture, la musique, le cinéma, etc.
Prerequisite: FRE 141 or previous FRE 152 or any course with the designation FRA
Antirequisite: previously FRA 365
FRA 353 Littératures migrantes et de la francophonie 3-3-0 La littérature comme outil d'expression des particularités culturelles nationales. Étude de quelques œuvres d'écrivains migrants du Québec à travers les thèmes de l'exil, la perception de l'Autre, l'identité / l'altérité culturelle, la mémoire, etc. Observation de la complexité historique des différences culturelles rencontrées dans une variété d'aires géographiques reliées à la francophonie, à l'exception de l'Europe (les Antilles, les Caraïbes, le Maghreb et l'Afrique noire).
Prerequisite: FRE 141 or previous FRE 152 or any course with the designation FRA
Antirequisite: previously FRA 270 or obligatoire pour les étudiant.e.s en enseignement
FRA 355 Versification : voyage dans la poésie française et québécoise

3-3-0
Apprentissage des règles de la versification par l'entremise de lectures commentées et d'analyses de poèmes issus des littératures françaises et québécoises. Survol historique des mouvements poétiques depuis la Renaissance française jusqu'à aujourd'hui (La Pléiade, Mallarmé, les poètes maudits, etc.) ainsi que des grands moments de la poésie québécoise (le phénomène Nelligan, les poètes de la Solitude et de l'Hexagone, la poésie identitaire, etc.)
Prerequisite: FRE 141 or previous FRE 152 or any course with the designation FRA
Antirequisite: previously FRA 361
FRA385 Teaching in the Community - Experiential Learning I 3-1-10 Experiential learning course where the student is paired with an immigrant or a refugee living in Sherbrooke or in the immediate area. During a 12 -week period, the student will tutor French two hours a week and help that person with cultural and adaptation related matters. Student must keep a journal where elements of the language taught and linguistic problems encountered are noted and reflected upon, as well as a cultural differences and ways to overcome them.
Prerequisite: a $75 \%$ mark in FRA315 or in the French Assessment Test

## Fine Arts

## Faculty

James Benson,
B.F.A., M.F.A. Ph.D. (Concordia); Professor, Chair of the Department

## Darren Millington,

B.A. (Bishop's), M.F.A. (UQAM), Ph.D. (Concordia); Professor

## Regine Neumann

B.A. (Bishop's), M.F.A. (Alanus)

Assistant Professor

## Program Overview

The mission of the Department of Fine Arts is to produce independent, critical thinkers who are able to discover and synthesize diverse types of knowledge, and understand the interconnections between the fine arts and other academic disciplines. Students completing the programs in Fine Arts develop a well-rounded perspective on the world; develop critical thinking skills and creative problem solving abilities; and communication skills transferable to many environments within and beyond fine arts related fields.

Moreover, our desire is to provide students with a broad based Fine Arts education, one which will allow them the widest possible scope for continued study leading towards visual arts-related careers. By providing students with increasingly more specialized courses, particularly in their third year of study, such as: FIN 301 Art Education: Theory and Practice; FIN 303 Preparation of Professional Portfolio; FIN 218 Digital Imaging for the Artist I and II; students are introduced to fields of study potentially leading to graduate study and careers in Art Education, Studio, or professions involving digital imaging. The aim of these courses, as well as the attitude that underlies their conception, is to instill in the student a sense of purpose. We want students to see their education at Bishop's as having a real intrinsic and extrinsic worth. We want students to see their Fine Arts training as connected to the world in which they will become creative, critical, and productive citizens.

Fine Arts students are normally streamed through their first two years of full-time study. This streamed sequence creates a familiar and fertile atmosphere wherein students develop a strong understanding of each other's creative work, which in turn, promotes a cross-fertilization of ideas and approaches integral to the Studio environment. As well, this student cohesiveness set within a well-structured curriculum enables professors to pursue curriculum content that may be thematically related. In short, goals and conceptual approaches sought after in a sculpture, drawing or photography class, may be reinvestigated and re-emphasized in a painting or digital imaging class. Similarly, issues arising out of Art History courses may be reinforced within the studio environment. The ultimate task as we see it is the creation of a unified, creative, and integrated learning environment for our students. We offer a number of programs designed to (to a greater or lesser extent), bring about this mandate.

It is important to note that the degree in Fine Arts is offered in two distinct profiles. Under the oversight of the Department of Fine Arts are programs including the Major in Fine Arts Studio

Concentration, the Honours in Studio, the Minor in Fine Arts and the Studio Certificate. Under the oversight of the Art History and Theory faculty are programs including the Honours in Art History and the Major in Fine Art Concentration in Art History (please see the Art History program section of this calendar).

## Programs

## Major in Fine Arts-Studio Concentration (48 credits) MAJFIN+CONFST

The Major in Fine Arts-Studio Concentration requires a minimum of 48 departmental or cognate credits ( 16 courses) from three course groupings (courses listed below under the course descriptions): Studio (27 FIS), Art History (15 FIH), and Comparative Arts (6 FIN). Any student who wishes exemption from a requirement should submit a request and relevant documentation to the Department Chair before registration is completed.

Students as a group are normally streamed through their first 45 credits as follows:

## Year I

Fall
FIS 140 Foundation Studio
FIS 160 Drawing I
FIH 100 The Art of Viewing
2 electives
Winter FIS 170 Sculpture I
FIS 181 Painting I
FIS 260 Drawing II
FIH 102 Survey of Western Art: Renaissance to
Neoclassicism
1 elective

## Year II

Fall FIS 271 Sculpture II
FIS 281 Painting II
2 FIS electives
FIH 220 Twentieth Century to the Sixties
During the second and subsequent years, students are offered a number of elective courses which include third and fourth level courses in Drawing, Painting, Sculpture, first and second level Printmaking and Photography, as well as the comparative course requirements including Digital Imaging I and II, Portfolio, Art Therapy, and Art Education, the required FIH 221: Art since the 1960s, and 300 level FIH art history course (for more detail, see courses listed below).

## Studio (FIS) Courses

The studio course requirement of a minimum of 27 FIS credits including one at the $300-l e v e l$. Normally, in the first year of fulltime study these include 15 credits (5 FIS courses) from: FIS 140 Foundation Studio, FIS 160 Drawing I, FIS 170 Sculpture I, FIS 181 Painting I, and FIS 260 Drawing II. In the second year of fulltime study, students will be required to choose a minimum of 12 FIS credits, (4 FIS courses) from the following: FIS 175 Introduction to Fibre Art, FIS 182 Photography I, FIS 190 Printmaking: Intaglio, FIS 261 Drawing III, FIS 271 Sculpture II, FIS 275 Fibre Art II, FIS 281 Painting II, FIS 291 Printmaking: Relief; FIS 296 Photography II, FIS 300 Drawing IV, FIS372 Sculpture III, FIS

373 Sculpture IV, FIS 382 Painting III, and FIS 383 Painting IV.
While registration priority will be given to Fine Arts students, students from other programs who may wish to study studio art may gain admittance to these courses. A student who believes he or she may have grounds to request exemption from one of the 100 -level studio courses is required to present a portfolio of work to one of the studio faculty before registration in order that a determination may be made. Normally, students must achieve a grade of at least $70 \%$ in $100-$ level studio courses before they may be admitted to 200 -level studio courses.

## Art History (FIH) Courses

The art history course requirement of 15 specific FIH credits includes FIH 100 The Art of Viewing, FIH 102: Survey of Western Art II: Renaissance to Neoclassicism, FIH 220: Twentieth-Century Art to the 1960s, FIH 221: Art since the 1960s, and one 300-level Art History course.

## Comparative Arts (FIN) Courses

The comparative arts course requirement is a minimum of 6 FIN credits. These courses require students to consider the arts in a broader liberal arts context, as they are by their nature interdisciplinary. These courses are normally taken in the second and subsequent years of full-time study. (It is important to note that these can include the courses listed under comparative arts section of course descriptions that are not offered by the Fine Arts department.)

All majors and honours students in Fine Arts must satisfy the Humanities Divisional requirement outlined at the beginning of the Humanities section of the calendar.

## Studio Honours Program (60 credits)

Similar to the major, the Studio Honours program includes three course groupings. However, it requires a minimum of 60 departmental or cognate credits ( 20 courses). This program includes Studio (42 FIS), Art History ( 15 FIH), and Comparative Arts ( 3 FIN). Any student who wishes exemption from a requirement should submit a request and relevant documentation to the Department Chair before registration is completed.

This program is designed to prepare students for further studies at the graduate level in studio related practice. Normally after having completed 30 credits as a major in the Fine Arts studio concentration, students will have the option to apply for the Studio Honours program. Eligibility for admission to this program is determined by the following criteria: an overall average no lower than $70 \%$ in courses within the Major program. A comprehensive portfolio including work completed as a Major in the program, and a statement of artistic intent will be required for applicants. Academic eligibility of students aspiring to the Honours Program is established in their second year of full time study.

## Studio (FIS) Courses

As students are not eligible to apply to change to the studio honours program until having completed 30 credits, the course requirements are identical to the major during the first year of full time study. Course requirements consist of 42 credits (14 FIS courses) in Studio. Normally, during the first 30 credits as with the major these include 15 credits (5 FIS courses) from: FIS

140 Foundation Studio, FIS 160 Drawing I, FIS 170 Sculpture I, FIS 181 Painting I, and FIS 260 Drawing II. Following the first year as a major, honours students will be required to choose a minimum of 27 FIS credits, ( 9 FIS courses) from the following: FIS 175 Introduction to Fibre Art, FIS 182 Photography I, FIS 190 Printmaking: Intaglio, FIS 261 Drawing III, FIS 271 Sculpture II, FIS 275 Fibre Art II, FIS 281 Painting II, FIS 291 Printmaking: Relief; FIS 296 Photography II, FIS 300 Drawing IV, FIS372 Sculpture III, FIS 373 Sculpture IV, FIS 382 Painting III, and FIS383 Painting IV.

## Art History (FIH) Courses

As with the major, the Art History courses (FIH) include a minimum of 15 credits in Art History (5 FIH courses) including: FIH 100, The Art of Viewing, FIH 102: Survey of Western Art II: Renaissance to Neoclassicism, FIH 220: Twentieth-Century Art to the 1960s, FIH 221: Art since the 1960s, and one 300-level Art History course.

## Comparative Arts (FIN) Courses

Unlike the major, in addition to the 57 credits listed above, students must choose 3 credits from either: FIN 301 Art Education: Theory and Practice, FIN 303 Preparation of a Professional Portfolio, or one additional 300-level Art History (FIH) course.

All majors and honours students in Fine Arts must satisfy the Humanities Divisional requirement outlined at the beginning of the Humanities section of the calendar.

## Minor in Fine Arts Program (24 credits)

MINFIN
The Minor in Fine Arts requires a minimum of 24 departmental or cognate credits, with 12 credits in Art History including: FIH 100: The Art of Viewing: Introduction to Art History, FIH 102: Survey of Western Art II: Renaissance to Neoclassicism, FIH 220: Twentieth-Century Art to the Sixties, FIH 221: Art since the 1960s and 12 credits in studio.

## Certificate in Studio Arts (30 credits)

The Certificate in Studio Arts is a structured program of study in Fine Arts with an emphasis on studio courses offered by the Department of Fine Arts. For part-time community students who do not wish to pursue a degree program, the Certificate in Studio Arts presents a rounded introduction to studio practice. Courses leading to the Certificate in Studio Arts are offered in the regular Fall-Winter semesters, the evening summer session and the Fine Arts Summer School. Credits obtained in the certificate program may be applied eventually towards a major or minor in the degree program in Fine Arts. Students may not be enrolled simultaneously in a degree program and the Certificate in Studio Arts.

## Admission requirements:

(See Regulations for Certificate Programs).
Transfer credits: A maximum of nine unassigned Fine Arts credits may be transferred from courses taken by a student at another university.

| 1) Required courses: 6 credits <br> FIH 101 <br> (formerly FIN 101) | Survey of Western Art I: <br> Prehistory to Medieval | 3-3-0 |
| :--- | :--- | :---: |
| FIH 102  <br> (formerly FIN 102) Survey of Western Art II: <br> Renaissance to Neoclassicism | $3-3-0$ |  |

2) The remaining 24 credits must be chosen from the Studio course list.
FIS 160
(formerly FIN 160) Drawing I 3-0-6
FIS 170
(formerly FIN 170)
Sculpture I
3-0-6
FIS 180
(formerly FIN 180) Colour Theory and Practice 3-0-6
FIS 181
(formerly FIN 181) Painting I 3-0-6
And any 12 credits chosen from other 100- and 200-level studio courses (see Fine Arts Studio section).

# COURSE DESCRIPTIONS Studio Courses (FIS): 

## Foundation Level

FIS 140 Foundation Studio $\quad$ 3-0-6
An introduction to the media of studio art involving practice in drawing, sculpture and painting, combined with discussion of concepts in the analysis of visual experience and art-making.

## FIS 160 Drawing I 3-0-6

This course is based on the premise that skills of visual observation derived from drawing are crucial to further studio practice. Students will explore the notions surrounding the articulation of physical space through drawing and come to an understanding of pictorial syntax by developing their skills of observation of form, proportion, value, and movement. Assigned projects will address fundamental and conceptual problems suggested by historical and recent practice.
FIS 170
Sculpture I
3-0-6
This course is intended to introduce students to a variety of sculptural languages. These may include the glyptic, the plastic, and the assemblage and their corresponding techniques of subtraction, substitution and addition respectively. Although group discussions will be employed, this aesthetic inquiry will primarily take the form of individual hands-on activity as the basis of group critical/ theoretical study.
FIS 175 Introduction to Fibre Art 3-0-6
An introduction to the nature and possibilities of fibres and to their use in art. Two and three-dimensional studio projects using techniques such as wrapping, fabric manipulation, dyeing, and papermaking, will take into account the characteristics of the material and the process.
FIS 176 Collage will $\quad$ 3-0-6 In this course students will explore the multiple possibilities of collage, a contemporary medium derived from the traditions of painting and drawing. In studio projects using two- and three-dimensional supports in a variety of formats, students will experiment with paper, found objects, photocopies, paint, and other media. Development of visual vocabulary, technical skills and creative expression of personal concepts in a non-traditional means of expression will be the focus of this course.
FIS 180 Colour: Theory and Practice 3-0-6
This course is designed to familiarize students with aesthetic concepts and expressive uses of colour in painting. Emphasis is on the understanding of colour contrasts as well as the optical, sensory, emotional, and psychological effects of colour relationships. The introduction of historical contexts, and contemporary artistic practices will provide students with a greater understanding and critical awareness of the varied approaches to colour. Class will proceed through assignments using a variety of mediums.

FIS 181
Painting I
3-0-6
This course is an introduction to the visual language and the materials and techniques in painting. Through observational study, and with an emphasis on the language of colour, pictorial syntax, and the articulation of space, students will develop a number of personal images. These projects, in conjunction with weekly studio critiques will increasingly challenge and help develop students' critical and creative thought processes. The study of key painting approaches in historical and contemporary painting will be an integral component of the course. Students are expected to develop a portfolio of the works and preparatory studies completed in class.
Formerly FIN 280
Students who have taken FIS 281 (formerly FIN 281) may not take FIS 181 (formerly FIN 181) for credit.

## FIS 182 Photography I

3-0-6
This introductory course will familiarize students with the concepts and fundamental techniques of digital photography with emphasis on individual projects. A survey of photographic genres and contemporary practices present students with various approaches that expand ideas about photographic representation. The basics of photography from shooting to printing will be experimented by the student.
Course requirement: A fully manual digital single lens reflex camera (DSLR) Formerly FIN 295
Students who have taken FIN 295 may not take FIS 182 for credit.
Prerequisite: FIS 140 or FIS 160

## FIS 185 Landscape Drawing and Painting I

3-0-6
Based on direct observation, this course will focus on the basic elements of line, shape, texture, value and colour as they unfold in nature. Students will learn to apply basic notions of composition and perspective while choosing the medium and format most appropriate to translate their impressions into visual language.

## FIS $190 \quad$ Printmaking: Intaglio

3-0-6
This course introduces students to various techniques and experimental processes used in creating intaglio prints. Drypoint, etching, as well as various contemporary approaches to plate making and printing will be covered. Technical demonstrations, presentations, and individual projects will familiarize students with contemporary practices and concepts in print media. Discussion and critique of work aim at furthering student's aesthetic thinking and skills.
Prerequisite: FIS 140 or FIS 160

## Intermediate Level

## FIS 260

Drawing II
3-0-6
This course will concentrate on the variety of approaches to drawing from observation and the imagination. A variety of exercises in figurative drawing will be employed that are directed towards the development of disciplined observation and technical control of the the graphic media. Consideration will be given to how and why the figure is essential to contemporary practice.
Prerequisite: FIS 160, formerly FIN 160
FIS 271 Sculpture II
3-0-6
This course will involve an aesthetic inquiry in a variety of sculptural languages moving from the graphic to the plastic. Based on a theme, students will become aware of the process by which his/her imagery evolves from a low relief to a sculpture in the round. Attention is paid throughout the course to understanding and articulating form in 2 and 3 dimensional space, and to helping students develop personal ways of working alongside, and in response to, the fellow students and current issues in contemporary sculpture.
Prerequisite: FIS 170, formerly FIN 170
FIS 275 Fiber Art II
3-0-6
This course is a continuation of Introduction to Fiber Art.
Prerequisite: FIS 175
FIS 281
Painting II
3-0-6
This course will involve a further exploration of concepts and techniques in painting, emphasizing the individuation of students' pictorial language and approach. Class investigations will examine various approaches to representational and abstract painting. Studio work is complemented by in-depth discussion, studio critiques, as well as the personal research of key issues in historical and contemporary painting. Students are increasingly expected to develop a personal portfolio of their works. Prerequisite: FIS 180 or FIS 181 (formerly FIN 180 and FIN 181)

FIS 285 Landscape Drawing and Painting II
3-0-6
This course is a continuation of Landscape Drawing and Painting.
Prerequisite: FIS 185
FIS $291 \quad$ Printmaking: Relief
3-0-6
This course offers an introduction to traditional techniques and experimental processes used in the pursuit of relief printmaking. Class involves an overview of techniques and materials including woodcut, use of a press and hand-printing relief processes. Conceptual concerns related to print media in a contemporary context are discussed and explored through technical demonstrations, presentations and individual assignments. Discussion and critique of work aim at furthering student's aesthetic thinking and skills.
Formerly FIN 191
Students who have taken FIN 191 may not take FIS 291 for credit
Prerequisite: FIS 140 or FIS 160
FIS 296 Photography II $\mathbf{3 - 0 - 6}$
This course develops and expands on digital image making techniques explored in Photo I. Students are encouraged to experiment and to integrate various contemporary issues and concepts in their assignments. Group discussion around body of images and the presentation of various contemporary approaches and practices in photography will encourage critical thinking.
Course requirement: A fully-manual digital single lens reflex camera (DSLR).
Prerequisite: FIS 182, formerly FIN 182

## Advanced Level

FIS 261 Drawing III
3-0-6
This course is a continuation of studies in life drawing. The figure will be considered using a range of approaches with emphasis on observation, anatomy, and spatial structure. Group discussions and presentations complement the studio work.
Prerequisite: FIS 260, formerly FIN 260
FIS 300 Drawing IV
3-0-6
This course will focus on Drawing in its relation to contemporary practice. Experimental aspects of drawing will be explored in a variety of media. Group discussions and presentations complement the studio work.
Prerequisite: FIS 261
FIS 302
Photography III
3-0-6
This advanced course will provide students with the opportunity to explore hybrid or cross-disciplinary approaches to the photographic medium. Course range is determined by instructor and may include special topics such as installation, sitespecific projects, projections, non-traditional uses of photographic images, web, inter-media collaborations, artist books and time-based mediums. Lab work will be digital.
Prerequisite FIS 296, formerly FIN 296
FIS 372 Sculpture III
3-0-6
This advanced course will engage the student in a more intensive specialized study in sculpture. Assignments are designed to provide further investigation into the history of making and thinking in sculpture and to raise questions pertinent to contemporary practice. The opportunity exists to explore new techniques and materials while honing familiar skills. This inquiry is designed to help students become self-directed. Individual and group discussion, play a significant role in the development of a body of work.
Prerequisite: FIS 271, formerly FIN 271
FIS 373 Sculpture IV
3-0-6
This course provides the opportunity for a more advanced program of individual study in sculpture based on visual languages and techniques determined by the instructor. Group discussion of student projects, and readings, that address current art practice, are core to this course. Individual and group critiques monitor the progress of each project.
Prerequisite: FIS 372

This course challenges the student with several in-depth projects that will encourage the development of individual themes through independent studio practice. Students will be expected, in both verbal and written form, to situate their artistic explorations within historical and contemporary approaches in painting. Studio work will be complemented by critical individual and group discussion as well as through research of pertinent approaches and concepts in historical and contemporary painting. The ongoing development of a personal portfolio of work is also expected of the student.
Prerequisite: FIS 281, formerly FIN 281

## FIS 383

Painting IV
3-0-6
This course will allow advanced students to explore the distinctions and similarities between painting and other visual art disciplines. As current art practice reflects an enormous range of possibilities of how art disciplines can interrelate, painting often becomes blurred, as hybrid approaches yield works that do not fit neatly into traditional historical categories. This course will examine connections between painting and the other studio disciplines through individual projects, historical analysis, and critique. Students will explore definitions and relationships, and will consider how these forms of expression may overlap and how they may diverge. It is expected that students will gain a better understanding of how painting and other forms of visual expression intersect, and that students consider and arrive at new ways of connecting these distinct disciplines in their own work. The ongoing development of a personal portfolio of work is also expected of the student.
Prerequisite: FIS 382
FIS 384 Photography IV
3-0-6
The advanced student is expected to create a body of work exploring an important issue from a personal point of view. The student will also contextualize his/her work within contemporary photographic practices and issues.
Prerequisite: FIS 302
FIS 385
Printmaking: Contemporary Practice
3-0-6
This course is designed to encourage printmaking students to develop a consistent personal approach to subject matter and techniques in the print media of their choice. Students are expected to be self-motivated, explore new printmaking techniques and develop their technical abilities through continuous experimentation and research. Participation in critical discussion and critique aims at furthering their intellectual understanding of contemporary print media.
Prerequisite: FIS 190 Printmaking: Intaglio or FIS291 Printmaking: Relief
FIS 390 Independent Study in Studio Art I $\quad \mathbf{3 - 0 - 0}$
FIS 391 Independent Study in Studio Art II 3-0-0
FIS 392
Independent Study in Studio Art III 3-0-0

Students who have accumulated 60 credits in the program and who have completed the course work in a given area may submit a formal proposal to the department outlining a project to be undertaken independently in consultation with the instructor. The Independent Study option is available only to Studio Honours students who have been in the Bishop's program for at least a year and who are currently pursuing other courses in the department on a full-time or part-time basis. Departmental approval is contingent on acceptance of the proposed project or course of research by the supervising instructor. Project proposals will be received no later than the add/drop deadline.

## FIS 395

Advanced Studio Problems I
3-0-6
The advanced student is invited to apply his/her acquired knowledge and techniques in two or three major projects that follow a conceptual approach and often extend image making from the personal to the public. Dialectic and deconstructive approaches are discussed and investigated while a clear discernment in the selection of imagery and materials is encouraged.
Prerequisite: 15 FIS credits
FIS 396 Advanced Studio Problems II
3-0-6
The further development of an emerging practice.
Prerequisite: FIS 395

## STUDIO COGNATES

Fine Arts majors normally will be permitted to take 6 cognate credits that will count towards the Studio component from among: DRA $101,160,161,250,251$, and 262 . With permission of the department, studio honours students may be permitted to take additional cognate courses. Fine Arts minors may apply one of the above cognates towards the minor.

## ART HISTORY COURSES (FIH):

Majors and honours are required to take FIH100, 102, 220, 221 plus any 300 level FIH for a total of 15 FIH credits (see course descriptions under the Art History programme).

| FIH 100 | The Art of Viewing: Introduction to Art History | $3-3-0$ |
| :--- | :--- | ---: |
| FIH 102 | Survey of Western Art II: Renaissance to Neoclassicism | $3-3-0$ |
| FIH 220 | Twentieth Century Art to the Sixties | $3-3-0$ |
| FIH 221 | Art Since the 1960s | $3-3-0$ |
| FIH 314 | Colonial and Post Colonial Issues in Visual Arts | $3-3-0$ |
| FIH 318 | Current Practices and Production | $3-3-0$ |
| FIH 320 | Special Topic in Art History | $3-3-0$ |
| FIH 323 | Seminar in Art History, Theory and Criticism in Art I | $3-3-0$ |
| FIH 350 | Independent Study in Art History I | $3-3-0$ |
| FIH 351 | Independent Study in Art History II | $3-3-0$ |

## COMPARATIVE ARTS COURSES (FIN):

Majors are required to take 6 credits from the following list.
FIN 218 Digital Imaging for the Artist I $\quad \mathbf{3 - 3 - 0}$
This course serves as an introduction to current practice on the computer in the graphic arts industry. Students will gain proficiency in the use of various software, particularly Photoshop, Illustrator, and InDesign on a Macintosh platform.

## FIN 222 Art Therapy <br> 3-3-0

This course acquaints students with the field of art therapy, by addressing relevant psychological background, theory and research as well as are therapy history approaches, and research. The course will include pertinent, gently guided practical experiences introducing students to therapeutic possibilities of art making.
FIN 301
Art Education: Theory and Practice
3-3-0
This course investigates various historical and critical approaches concerned with the identity of the artist and the artwork as they inform practice. Students will develop relevant methodologies that will apply to the planning and teaching of art in a variety of educational settings, and will explore a variety of paradigms for teaching studio practice.
Prerequisites: FIS 160, FIS 170, FIS 181, and either one of FIS 261, FIS 372, or FIS 382
FIN 348 Digital Imaging for the Artist II $\quad 3-3-0$
Students will delve deeper into the creative potential of Adobe Creative Suite and will work individually and in groups on real-world print and multimedia productions in collaboration with students involved in performances in the fine and creative arts.
Pre-requisite: FIN 218 or consent of instructor
FIN 303 Preparation of a Professional Portfolio 3-3-0
The purpose of this course is to encourage students to situate their works within the broad stream of contemporary art as a means of either continuing their study in a variety of fields at the graduate level, or as a preparation for a career as practicing artists. The students should use this course to prepare a professional portfolio of their works, as well as to consider some of the conceptual approaches within which, or against which, they will be operating as contemporary artists.
Prerequisites: FIS 160, FIS 170, FIS 181, and either one of FIS 261, FIS 372, or FIS 382

## Additional Comparative Arts courses:

Arts Administration I
AAD 251 Arts Administration II
AAD 252 Arts Administration III
CLA 110 The Art and Archaeology of Ancient Egypt
CLA 120 Classical Archaeology
CLA 205 Greek Art and Architecture
CLA 206 Early Christian and Byzantine Art
CLA 207 Early Roman Art
CLA 208 Art and Architecture of Imperial Rome
CLA 238 Greece, Land of the Gods
CLA 240 Archaeological Interpretation
CLA 365 Topics Archaeology I
CLA 366 Topics Archaeology II
FIN 235 Museology
FIN 388 /
HIS 298
PHI 346 Topics in Philosophy of Art
PHI 364 Topics in Postmodern Philosophy
REL 237 Film and Religion
FIN 292 /
SOC 291 Sociology of Art

## History

Faculty<br>Gordon Barker,<br>B.A. (McGill), M.A., Ph.D. (William and Mary)<br>Professor<br>Cristian Berco,<br>B.A. (Toronto), M.A., Ph.D. (Arizona); Professor<br>Chair of the Department<br>Jean L. Manore,<br>B.A. (Western), M.A., Ph.D. (Ottawa); Professor<br>David Webster,<br>B.A. (York), M.A., Ph.D. (British Columbia)<br>Professor

## Program Overview:

In an increasingly compartmentalized and specialized world, historical study is one of the best ways to promote an ability to synthesize information, to expand cultural awareness, and to gain access to the many creative ways in which humans have responded to the challenges which face them. In addition, historical study deepens a number of specific skills which are invaluable assets for graduates entering the labour market and taking on the duties of citizenship, such as the ability to think critically, to devise strategies, to solve complex problems, to engage in research, and to present conclusions in an organized, reasoned and coherent way, both orally and in writing.

Graduates who have an ability to work across cultures and who are able to engage the world both as workers and as citizens are valued in today's increasingly globalized societies. The study of history is ideally suited to produce such individuals. The Department of History is keenly aware that the study of the past is not just about dates and events; it is primarily about developing in the individual student the ability to understand the world and to undertake reasoned, effective, well-informed action as a result. Our program is designed to enable you to accomplish these goals.

We believe that all graduates, whether Majors or Honours, must possess the ability to undertake self-directed intensive research, to be familiar with a wide range of past societies and to be aware of the interpretive and methodological options for analyzing them. Our programs are constructed to allow students to acquire a deep historical knowledge and to develop both historical and general, transferable skills.

Courses in our program lead to a B.A. with either an Honours, Major, or Minor in History and Global Studies. Students may also take advantage of pursuing historical studies in interdisciplinary contexts. Such programs include a B.A. in Arts Administration (Public History Concentration). Finally, students may also be interested in combining their History and Global Studies with a Minor in Pre-Law. Further information on those programs can be found in their respective section of the Academic Calendar.

## Areas of Specialization

The History Department offers introductory courses which cover the historical development of four main geographic areas: Canada, the United States, Europe and the Global South, often within a global context. In the senior years, courses reflect the research interests of its faculty, which include gender and family history, race relations, human rights, and Indigenous history, cultural theory, and the history of disease.

## PROGRAMS AND REQUIREMENTS

## Honours in History and Global Studies

## (61 credits)

HONHIS
An overall average of $70 \%$ is required to obtain an honours. The last 30 credits of the program must be completed at Bishop's.
The 61 credits required for the Honours degree must include:

| Program Requirements <br> Honours |  |  |
| :--- | :--- | :--- |
| Calendar Category | Courses | Credits |
| Introductory Courses | 2 out of: | 6 |
|  | HIS 104 |  |
|  | HIS 105 |  |
|  | HIS 108 |  |
|  | HIS 109 |  |
| Historiography and Methods | HIS 101 | 1 |
|  | HIS 200 | 3 |
|  | HIS 240 | 3 |
| Global Courses | 3 courses | 9 |
| National Histories | 1 Canada Course | 3 |
|  | 1 US Course | 3 |
|  | 1 Europe Course | 3 |
|  | 1 Asia, Lat Am, or <br> MENA Course | 3 |
| Professional Courses | 2 courses* <br> *May include one <br> internship | 6 |
| Seminars | 3 courses | 9 |
| Other | 1 Internship OR 1 <br> Senior Paper | 3 |
| Electives | 3 HIS xxx | 9 |
| Total | 21 courses | 61 credits |

Major in History and Global Studies
(49 credits) MAJHIS
A minimum of 24 credits must be completed at Bishop's, including:

| Program Requirements <br> Major |  |  |
| :--- | :--- | :--- |
| Calendar Category | Courses | Credits |
| Introductory Courses | 2 out of: | 6 |
|  | HIS 104 |  |
|  | HIS 105 |  |
|  | HIS 108 |  |
|  | HIS 109 |  |
| Historiography and Methods | HIS 101 | 1 |
|  | HIS 200 | 3 |
| Global Courses | HIS 240 | 3 |
| National Histories | 3 courses | 9 |
|  | 1 Canada Course | 3 |
|  | 1 US Course | 3 |
|  | 1 Europe Course | 3 |
| Professional Courses | 1 Asia, Lat Am, or <br> MENA Course | 3 |
| Total course* | 3 |  |
| Seminars | May include one <br> internship |  |
| Electives | 2 courses | 6 |
| 2 HIS xxx | 6 |  |
|  | 17 courses | 49 credits |

## Minor in History (24 credits)

MINHIS

- 6 credits in 100-level courses
- A minimum of 12 credits in 200 -level courses including 3 credits in each of the four geographic areas offered by the Department
- And two other history, cognate or cross-listed courses.


## Indigenous Studies Minor

## ( 24 credits MININD

The Indigenous Studies Minor (ISM) is designed to introduce students, through an interdisciplinary approach, to the global processes of cultural encounters and the resultant responses of resistance, accommodation, and adaptation. Students will be exposed to theories and world-wide applications of, and responses to, imperialism and colonialism, as well as decolonization and post-colonialism.
Program prerequisites:
No specific prerequisites are necessary, except for the ESG courses which will be subject to the instructor's approval.

## Course sequence:

The Minor requires the completion of 24 credits; one of which must be either HIS 108, A Global History of Indigenous Peoples, ENG 123 Introduction to Indigenous Literatures or SOC 107 Indigenous and First Nations Peoples in Canada. The other mandatory course would be at the higher end of the student's scholastic learning. Students take either HIS 300 The Law of the Land: Indigenous Treaties with Canada or ENG 358 Approaches to Indigenous Literary Cultures in Canada or SOC 396 Post Colonial Theory. Both sets of mandatory courses are designed to give students the opportunity to experience Indigenous Studies within an interdisciplinary framework. The remaining 18 credits must be taken from the list of courses below. Note that the courses will be offered on a rotational basis so students may wish to consult with the course instructor or the ISM coordinator when considering their course options.

The required courses for the minor are the same for the 120 -credit and 90 -credit programs.

## ONE of the three following courses:

HIS 108 A Global History of Indigenous Peoples
SOC 107 Indigenous and First Nations Peoples in Canada
ENG 123 Introduction to Indigenous Literatures in Canada

## SIX ( $\mathbf{1 8}$ credits) from:

HIS 269 First Nations/Settler relations in Canada
HIS 255 History of Modern Southeast Asia
HIS 257 Latin America to 1800
HIS 279 The Middle East in the Twentieth Century
HIS 289 Transatlantic Slave Trade and the Atlantic World, 1500 to 1867
EDU 205 Education, Colonialism and De-Colonization
ENG 228 Introduction to Post-Colonial Literature
ENG 375 Colonial Narratives
ESG 266 Environmental Policy
ESG 339 The Canadian Arctic
ESG 340 The Circumpolar North
ESG 350 Environmental Justice
POL 236 Introduction to Middle East Politics
POL 315 Indigenous-Settler Intergovernmental Relations
SOC 207 Sociology of Indigenous-Settler Relations
SOC 235 Women and the Penal System
SOC 295 Social Inequalities
SOC 309 Advanced Seminar in Global Colonization and Decolonization

ONE of:
HIS 300
ENG 358 Approaches to Indigenous Literary Cultures in Canada
SOC 396 Post-Colonial Theory

## Double Counting

The maximum number of courses that can be double counted towards a History Major or History Honours degree is 4 courses. For a History Minor, the maximum number of courses is 2 .

## List of Courses

## Introductory Courses

HIS 104 The West in the World to $1750 \quad$ 3-3-0
An introduction to the major developments in Western history from the end of the ancient world to the eve of the French Revolution, focusing specifically on the interconnectedness of the West with the rest of the world. Topics will include the origins of Civilization in the Near East, classical Greece and Rome, medieval civilization and its breakdown in the Renaissance and the Reformation; European encounters with the Americas, and the Scientific Revolution and Enlightenment.
HIS 105 The 20th Century World 3-3-0
The 20th century has been an age of extremes. It has witnessed the rise of human rights, great economic and social transformations, and wars of unprecedented severity. Topics to be discussed include the rise of totalitarian movements, notably fascism and communism, warfare, decolonization, economic crisis, the genocides of the 20th century in Europe and Asia, and the post-1945 East-West schism.
HIS 108 A Global History of Indigenous Peoples 3-3-0
This introductory course is designed to acquaint students with the global processes of contact and colonization through the presentation of colonial and post-colonial theory and the examination of specific case studies within Asia, Africa and North America. While largely historical in content, guest speakers and other resources will be used to expose students to interdisciplinary approaches to studying these continuing phenomena.
HIS 109 New World: The Americas to 1850 3-3-0 An introduction to the history of North and South America from the pre-Columbian era to the mid-19th century. The main topics include a survey of pre-Columbian civilizations, contact between native Americans and Europeans, the rise and fall of European empires in the Americas, the creation and growth of independent nation states in the New World.

## Historiography and Methods Courses

HIS 101 History Methods Lab 1-0-1
This lab introduces students to research methods in history through the use of tutorials and workshops. Topics to be covered include use of research databases, organization of research materials, reporting research results, and proper notation and referencing techniques.
HIS 200 Historical Theories and Methods 3-3-0
This course will survey the discipline of history as a branch of human knowledge. It consists of two main components. The first section will provide a survey of the development of the western historical consciousness through a detailed study of classical, medieval, modern and postmodern texts. The second component will focus on practical problems in historical methodology through a study of the key works in the various historical subdisciplines, and through projects focusing on applied research and analytical techniques.
HIS 240 History and Heritage 3-3-0
This course is designed to introduce students to the practice and presentation of history in public institutions and spaces, such as museums, archives and historic sites. It will explore practical applications of history, the history vs heritage debates and the theoretical underpinnings of public history including the use and creation of memory, ideas of performativity and voice, and identity studies.and analytical techniques.

## Global Courses

HIS 201 /
CLA 201 Ancient Slavery and its Legacy
3-3-0
Slavery was ubiquitous in ancient Greece and Rome due largely to frequent warfare. This course will examine the ways that the institution of slavery influenced societal and class structures, the economies, and the moral attitudes of ancient Greek and Roman societies. We will also examine how ancient slavery influenced modern attitudes around slavery, and the differences between ancient and modern slavery.
Open to first-year students.

The History of Law Enforcement: From State to Social Justice 3-3-0
"Protect and Serve" are words that are used to epitomize police functions, but what is being protected and who is being served? The same questions could be asked of justice systems generally. Through multimedia presentations and group discussions, this course will explore these questions by presenting and examining case studies of policing and court proceedings within North America, Europe and Asia and elsewhere.

HIS 206 The History of Night: An Exploration of the 'Darker' Side of Life

3-3-0
Half of our existence as human beings resides in the night, and while most of that time is spent sleeping, the night has been a dominant presence in our waking lives as well. Night-time has historically been associated with criminality, ghosts and goblins, and sexual deviance, but the night-sky has also represented contemplation of eternity and our beginnings. This course will explore ideas of night as an historical subject of inquiry. It will examine the various ways that night has been culturally constructed as an object of fear but also as a place of inspiration and wonder.

## HIS 208 History of Torture

3-3-0
From the mutilated body as a form of public warning in the pre-modern world and the use of legal torments in medieval trials to the extra judicial application of torture in various modern contexts, this course examines the history of torture from a thematic perspective. In particular, the course will analyze the changing factors that shaped how societies across time and space resorted to such extreme measures. This will include torture in jurisprudence and practice, changing scientific understandings of the body and pain, the involvement of state and nonstate actors in rationalizing and employing torture, and the sociocultural aspects informing its application, whether in the private or public realms.

## HIS 228 Remembering Atrocities:

Truth and Reconciliation in Global Context
3-3-0
One major method for reconciling post-conflict societies to the traumatic memories of conflict in recent years has been the "truth commission." This course surveys truth and reconciliation commissions in throughout the world and the ways in which they are used to construct alternative national narratives in the search for usable pasts.
HIS 229 Human Rights and Humanitarian Organizations 3-3-0
Have non-governmental organizations made a difference? How have they interacted with and altered the international system? This course examines the border-crossing activities and influence of transnational human rights, humanitarian and other non-governmental organizations from 19th century struggles against colonialism to 20th century campaigns to ban land mines and promote universal human rights.

## HIS 238

The Cold War in Global Context
3-3-0
This course will analyze the origins, course and consequences of the Cold War from the end of World War II to the collapse of the Berlin Wall. Among the topics to be studied are the ideological and geopolitical foundations of SovietAmerican antagonism, the assumptions and objectives of each bloc, the emergence of the Third World and the impact of Cold War on its evolution, the building of non-alignment and neutrality as responses to a bipolarized world, and political/ diplomatic competition and 'hot wars', in particular in Asia and Africa.

## HIS 242 History of Animals: Prey, Predator and Partner

3-3-0
This course explores the various ways in which humans have interacted with animals throughout modern history. Human understandings of animals, whether as predators, prey or partners will be examined, as will changing societal attitudes over the treatment of animals, as reflected, for example, in the rise of animal welfare and animals rights organizations. While the focus will be on North America, examples from other continents may be included.
HIS 245
Global History of Water
3-3-0
Water's importance to human societies is pervasive, yet as an historical agent, it is little studied. This course seeks to correct that by examining, within a global context, water systems such as oceans, rivers and lakes and how they have shaped and supported cultures, economies and political territories. It will examine water systems as foundational myths, as coursed for food and energy resources and as vehicles for imperialist and nationalist aspirations.

## HIS 249 The Hispanic World in the 17th Century

3-3-0
By 1600 , Spanish kings boasted that they ruled over an empire on which the sun never set referring to the vast territories they controlled in Europe, the Americas, and the Far East. Over the next century, internal demographic and economic crises as well as setbacks in war and trade would test the integrity of the empire. This course explores Hispanic societies and cultures, as they grappled with rapid change, unexpected pressures, and increasing global interconnectedness during the seventeenth century.

HIS 263 Pre-industrial Québec 1608-1840
3-3-0
This course traces the establishment, growth and eventual decline of traditional French-Canadian society in the St. Lawrence valley from the founding of New France in 1608 to the end of the eighteenth century. Topics to be explored include the French-Amerindian relationship, the seigneurial regime and the role of the Church, the evolution of a market-oriented economy, the advent of representative institutions and the crisis of the colonial order in the first decades of the nineteenth century.
HIS 268

## Changing the World:

A Global History of Activism and Protest
3-3-0
For centuries people have tried to change the world in campaigns for human rights, peace, and the environment. How have they done so? When have they succeeded, and why? In this course, we examine activist movements in historical perspective, with a focus on the $20^{\text {th }}$ century and attention to different parts of the world. Examples to be studied may include the anti-slavery movement, Indigenous rights campaigns, movements for decolonization, and 1960s protest movements on both sides of the Cold War divide.
HIS 285 The Pacific World 3-3-0
Contacts and exchanges across the Pacific Ocean go back for centuries. As with other bodies of water, exchanges within the Pacific allow the region to be considered as a "world" unto itself that was also in contact with other world regions. The Pacific World surveys economic, political and social currents within the Pacific region over the past five centuries, with the emphasis on the 20th century and on contacts between North America and Asia during this period.
HIS 289 The Transatlantic Slave Trade and the Atlantic World, 1500 to 1867

3-3-0
This lecture course examines the development of the transatlantic slave trade and its role in the integration of the Atlantic World, 1500 to 1867 . Students will explore the growth of the trade, its impact on Africa, the rise of New World slavery in the Americas, its contribution to European and American expansion through to the second half of the 19th Century, and how the trade shaped social, cultural, economic, and racial development globally. Students will study the Transatlantic Trade's sources of slaves by age, gender, and country of origin, as well as recent documentation of disease, death, and slave rebellions on the Middle Passage. The abolition of the trade will be dealt with. Issues of memory and reconciliation will also be addressed.
HIS 294 The Age of Imperialism, 1870-1914
3-3-0
Few nineteenth-century topics have generated more controversy than the establishing of a European overseas hegemony. The course examines the motives behind expansion within the metropolitan states and the impact of the European presence on those areas of the globe which became the objects of a European embrace.
HIS 296 The Americas: A Comparative Colonial History 3-3-0 Examines the rise and fall of the great European empires in the Americas, with an emphasis on the process of implantation and growth of new societies. Topics to be examined include contact with Native peoples, demographic features of early colonial populations, slavery and colonial economies, the rise of colonial elites and their challenge to imperial authority.

## National Histories and Area Surveys

## Canada

HIS 207 Canada 1867-1945 3-3-0
This course will trace the political, social, economic, and cultural history of the Canadian federation from 1867 to 1945 . Special attention will be given to such topics as geographic expansion, relations among the founding peoples, the Riel Rebellions, the move towards Canadian autonomy, foreign relations, the world wars, the role of women in society, the Great Depression, and politics and reform movements.
HIS 211 Canada Since $1945 \quad$ 3-3-0 This course will trace the political, social, economic, and cultural history of Canada since the end of World War Two. Special attention will be given to such topics as postwar economic prosperity, relations with the United States, the "golden age" of Canadian foreign policy, the baby-boomer generation, feminism and the rights of women, constitutional change, bilingualism, Pierre Trudeau, and multiculturalism.

HIS 221 Pre-Confederation Canada
3-3-0
A history of the various Canadian peoples and communities of pre-Confederation Canada beginning with First Nations through the establishment of FrenchCanadian society on the St Lawrence, the Anglo-American settlers of early Nova Scotia, the Loyalists of Ontario and the Maritime provinces, and including the migrants of the early nineteenth century. The focus of the course will be on social, economic and cultural development.
HIS 241 Canada and the World in the 20th Century
3-3-0
Topics include Canada and imperialism, the two world wars, the development of Canadian foreign policy, the golden age of Canadian diplomacy, Canada and the League of Nations, and the United Nations.
HIS 263 Pre-Industrial Quebec 1608-1840 3-3-0
This course traces the establishment, growth and eventual decline of traditional French-Canadian society in the St. Lawrence valley from the founding of New France in 1608 to the end of the eighteenth century. Topics to be explored include the French-Amerindian relationship, the seigneurial regime and the role of the Church, the evolution of a market-oriented economy, the advent of representative institutions and the crisis of the colonial order in the first decades of the nineteenth century.

## HIS 265 Québec: Political Change and Industrialization 1840-1930

3-3-0
Beginning with the Union period, this course traces the main political, economic and social developments of an age marked by Confederation, the growing conflicts between French and English Canada, and successive waves of industrialization and urbanization. The course will also deal with cultural development in this period, with particular emphasis on the struggle between liberalism and traditional nationalism.
HIS 267 History of Sport in Canada
3-3-0
This course will examine the development of Indigenous, recreational, and professional sports in Canada. It will include examinations of specific themes within sports history such as gender, race and colonialism, and it will examine sport's contributions to the creation of national identities. Additionally, it will provide an historical view of specific contemporary issues like violence and drug use in sports, and its use as an agent of international diplomacy.
HIS 269 First Nations/Settler Relations in Canada
3-3-0
Through a variety of lectures, readings and films, this course will focus on the legal and political issues and events that have shaped First Nations/settler relations from 1763 to the present. Topics to be examined include: treaties, education, the Indian Act, Aboriginal protest movements and self-government negotiations.
HIS 288 Women in 19th and 20th Century Canada 3-3-0
This course will expose students to a variety of issues and experiences that have been historically relevant to women. Particular attention will be paid to the experiences of Aboriginal women, the impact of changing technology on women's work and women's participation in politics.
HIS 297 A History of Communications
3-3-0
Examines the evolution of different modes of communication from the advent of writing systems, through the printing press to the electronic media of the twentieth century. The focus of the course will be on the social, cultural and economic impact of communication revolutions.

## United States

## HIS 214 The United States, 1877-1945

3-3-0
This course will examine American political, social, cultural, economic, diplomatic, and military history from the era of reconstruction until the end of World War II. Special emphasis will be placed upon industrial growth, continental expansion, the closing of the frontier, urbanization, immigration, progressivism, the two world wars, the depression, and America's rise to global power.

## HIS 215 The United States to 1877

3-3-0
This course traces the evolution of American society from the Colonial period, through the Revolutionary Era to the Civil War and Reconstruction. Among the topics to be discussed are the colonial experience, the forging of American republicanism, the Constitution, the growing complexity of ante-bellum society, the problem of slavery and the crisis of American federalism.
HIS 217 The United States Since 1945
3-3-0
This course will examine American political, social, cultural, economic, diplomatic, and military history since 1945. Emphasis will be placed on the postwar economic boom, social change, civil rights, the cold war confrontation, the war on poverty, the 1960s and the war in Vietnam, Nixon and Watergate, Reaganism, and the culture wars of the 1990s.

HIS 250 The American Civil War and Reconstruction
3-3-0
This course surveys events contributing to sectional strife in the late antebellum period and explores scholarly interpretations of both the Civil War and Reconstruction. It also deals with how these formative periods have been remembered by succeeding generations of Americans. The course examines the military campaigns and draws on recent advances in social, cultural, and AfricanAmerican history to study the home fronts and identify social changes in both the North and South that help to provide new perspectives on Emancipation, the politics of Reconstruction, and the onset of Redemption.

## HIS 262 Women in America, 1765-1920

3-3-0
This course focuses on the experience of women from colonial times to the adoption of the 19th Amendment in 1920. Drawing on the growing literature on Women's History and recent scholarship on gender, sexuality, and race, students will explore the conditions and challenges women faced during the Revolutionary Era through to the nineteenth century. The course will examine changing perceptions of gender, women's roles in the public and private spheres, female education and work experience, and the impacts of the Revolution, Civil War, and World War I on women. Slavery and women's demand for the franchise will also be discussed.
HIS 290

## Survey of the African American Experience,

1619 to 1896
3-3-0
Through a combination of lectures and discussions, this course explores the African-American experience in slavery and freedom from colonial times to the late nineteenth century. Topics include: Indi frontier race relations, the Atlantic and domestic slave trade, industrial as well as plantation slavery, slave resistance and revolt, African-American religiosity and culture, free blacks in antebellum America, black abolitionism, the role of African Americans in the Civil War and Reconstruction, and the emergence of segregation. Drawing on recent advances in cultural and social history, the course also focuses on legislation, executive policy, and landmark Supreme Court opinions.
HIS 292
American Foreign Relations in the Twentieth Century 3-3-0 The participation of the United States in world affairs from the Spanish-American War to the Cold War: the conflict of ideals and self-interest, of ideology and realism, in the conduct of foreign policy.

## Europe

HIS 232 France: Enlightenment \& Revolution
3-3-0
An examination of eighteenth-century social and political controversies, key enlightenment figures and intellectual trends, the 1789 Revolution, counterrevolution, the Terror, and Napoleon.
HIS 234 The Italian Renaissance
3-3-0
This course will examine the Italian Renaissance as a pivotal moment for social, cultural, and political change. By examining the relationship between developments in art, literature, and popular mentalities of the time, the course will explore the Italian Renaissance as a catalyst for the broader transformation of the early modern world.
Cross listed as ITA 240
HIS 235 Europe's Queer History
3-3-0
This course explores the role of sexual and gender minorities in European history. Through lectures and discussions around primary texts, students will engage the changing configurations of European queerness. Topics of study will include processes of constructing sexual difference, the daily lives of queer historical actors, the use of political and judicial power to control sexuality, and the meanings of emerging forms of queer identity. The course will cover Classical Greece and Rome, medieval Christian Civilization, the emerging queer urban culture of Renaissance and Enlightenment Europe, and the modern transition to full-fledged queer subjectivity.
HIS 237 The Formation of Modern Europe 1815-1914
3-3-0 This course will provide an analysis of the concepts, forces and movements which created modern Europe in the nineteenth century. It will study the articulation of ideologies, the contest for emancipation in its various forms, the construction of new concepts of citizenship and political power, the technological and economic growth of the period, with its associated social tensions, and the growing rivalries among the emerging nation-states of the Continent. It will end by looking at the internal and external conflicts - socioeconomic, political and cultural - that set the stage for the murderous struggles of the early 20 th century.

Europe from the Black Death to the Wars of Religion 3-3-0
This course surveys early modern Europe, from the trauma of the Black Death in 1348 to the end of the Wars of Religion and the Peace of Westphalia in 1648. Over these three centuries, European society grappled with the slow loss of traditional medieval certainties in a rapidly changing world. Factors to explore include the Renaissance, the breakdown of the Christian unity, the encounter with the Americas, and the persecution of marginalized groups.

## HIS 248 <br> Tudor and Stuart Britain <br> 3-3-0

This course will focus on the transition of Britain from an island divided between two feudal polities and societies into the first recognizably modern state. It will deal extensively with the stresses, resistances and complexities involved in this process. Themes which will be particularly highlighted include the rise of the Tudor state in England, religious conflicts in both island kingdoms and their impact on social and political developments, mid-17th century wars and civil wars, the transition to a market economy, popular culture and popular beliefs, and the emergence of a unified Britain as a European and world power. These themes will be explored through a combination of lectures, texts and the extensive use of documentary sources.
HIS 252 The Medieval Mediterranean World 3-3-0 This course explores the Medieval Mediterranean World from the historical perspectives of its three main regions: The Middle East, North Africa and Southern Europe. Themes to be examined include religion and politics, gender and sexuality, as well as the production and transfer of knowledge.
HIS 253 A History of Medieval Europe
3-3-0
This course is an introduction to the history of Europe from the breakdown of the ancient world to the beginning of Modern Europe. After a survey of the Germanic, Roman and Christian roots of medieval society, special attention is given to those institutions and developments which characterized the civilization of the high Middle Ages: the 12th century renaissance, the Christian ideal, the medieval university, relations between church and state, feudal society, the crusades, chivalry and the medieval style in the fine arts.
HIS 293 Cities: Urban Life and Society in Early Modern Europe 3-3-0 This course introduces students to some of the central issues in the study of early modern European urban history, and to the diverse possibilities of investigation available within it. Among the topics to be discussed are the relationships between citizens and the urban environment in which they lived, the organization of urban life, as well as the many faces of urban culture.
HIS 295
European Diplomacy since 1914
3-3-0
This course examines the international relations and foreign policies of the major European states from the beginning of World War I to the Cold War and the emergence of modern Europe.
Cross listed as POL 277

## Asia, Latin America, Middle East and North Africa (MENA)

HIS 255 History of Modern Southeast Asia 3-3-0
The dozen countries south of China and east of India are diverse but nevertheless form a coherent region of study. In this course, the national experiences of each country are compared since about 1800 . Topics to be covered include the emergence of indigenous political units, trade, European and American colonial rule, the rise of nationalism, the impact of the Pacific War in the 1940s, economic development after independence, the creation of regional organizations, human rights and environmental change.

## HIS 256 Latin America 1800 to the Present <br> 3-3-0

This course will survey the history of Latin America and the Caribbean from c. 1800 to the present day. The course will deal with the major social, economic and political processes of the period. The class will also provide insight into problems of development and underdevelopment as well as a discussion of the movements for social change.
HIS 257 Latin America to 1800
3-3-0
This course will provide a survey of the history of Latin America and the Caribbean from pre-Columbian times to the wars of independence. Topics to be explored include the nature and development of pre-Columbian cultures and civilizations, the impact of European contact and transatlantic migrations, the formation and evolution of colonial societies, economies and cultures, and the origins of national political movements in the late 18th century.

HIS 277
South: The Making of the Third World
3-3-0
The majority of the world's people live in the Global South, a region covering Africa, Asia, the Middle East, Latin America and the Pacific that is often called the "Third World." How was this region created and how has it been re-made over time? What are its key features? How has it evolved over time? This course examines the creation, growth and evolution of the Global South with a stress on colonial legacies, economic development, social change and political assertion and non-alignmnent.
HIS 279 The Middle East in the Twentieth Century 3-3-0 The course is a study of the forces and events that have shaped the contemporary Middle East since the First World War. It explores the role played by Western colonial powers in forging a new political and territorial order in the region, the rise and growth of nationalism and the struggles for independence that marked the first half of the century. It examines the stormy relations between the Middle East and the West after the Second World War and the ways in which the involvement of major world powers in the area and internal regional developments molded the political evolution of the contemporary Middle East. Special attention will be given to the growing dominance of the United States, the resurgence of Islam, the Arab-Israeli conflict and the Gulf wars.
HIS 283 A History of Chinese Civilization
This course introduces China's history and cultural heritage from antiquity to the This course introduces China's history and cultural heritage from antiquity to the 19th century C.E. Political history, modes of governmental and socioeconomic organization, and developments in thought and religions will be examined in three major epochs: a formative age, from antiquity into the third century B.C.E.; an early imperial age, from the third century B.C.E. to the 10 th century C.E.; and a later imperial age, from the 10th century C.E. to the late 18 th century C.E.

## HIS 284 History of Modern China

3-3-0
The course examines China's transformation into a modern nation-state. Topics to be discussed include China's four political revolutions, the role of Japanese aggression and civil war, the construction of an industrializing economy, as well as the transformation of Chinese society and culture.

## HIS 291 Women in the Islamic World

3-3-0
This course examines the history of the Islamic world from the pre-Islamic era to modern times, through women's lives. Following a mix of thematically and chronologically organized topics, this course covers key historical events, mainly in the Middle East and North Africa, such as women's status in early Arabia, gendered citizenship in the Islamic state and Islamism's contemporary debate over gender.

## Professional Courses

## HIS 227 The Stuff of History:

 An Introduction to Material Culture3-3-0
The purpose of this course is to expose students to the nature and role of material culture in various public history venues, notably museums and archives. Students will be introduced to theoretical and methodological approaches to material culture and gain experience in working with artifacts as historical evidence. Themes to be discussed include: provenance, artifact conservation, and the role they play in commemoration and preservation of historical memory. Assignments will include the creation of "artifact biographies" and essays on issues pertaining to material culture history.
HIS 236 / FIH 246
Public Art and Monuments
3-3-0
An exploration of art made for public spaces and public viewing taking into consideration aspects such as: site, natural environment or urban settings, commemoration and politics, the public sphere and the audience.

## HIS 239 History and the Archives 3-3-0

 Archives house the history that people access to find out about their past. It is in archives, they can discover their personal genealogy or the root causes of political or economic crises; it is there, they can recover the institutional or cultural memory of people, communities or nations. How archivists collect, organize, and preserve this diversity of histories will be the focus of this course. Through lectures, readings and discussions, students will be introduced to the practices of archival sciences and management and will be provided with the necessary preparation for participating in HIS 391, as an archives intern.HIS 275
Digital History
3-3-0
Digital history uses computers and other tools to analyze and present historical research. In ways that relate to current issues. This is a skills course on how to digitize and analyze textual and visual information; hare findings online through web sites, open access publishing and other methods; and apply historical methods to online information. No technological knowledge is required to enrol, but curiosity and a passion for telling stories digitally is an asset!
HIS 298 Museums and Communities
3-3-0
This inter-disciplinary lecture/seminar course offers students an introduction to a range of theoretical approaches and contemporary developments in the field of Museology. Through case studies and actual work with community groups, students will have the chance to experiment with key processes around critical museum work today (rational, documentation, mediation, scenography).
Cross listed as FIN 388

## Seminars

Pre-requisite for all 300-level History seminars is HIS 200 or permission of the instructor
HIS 300 The Law of the Land: Indigenous Treaties with Canada 3-3-0 Foundational to Canada's geography, economy, and politics are the numerous treaties negotiated between it and the Indigenous Peoples who lived and live within its borders. Central to the treatise are differing interpretations as to who owns or controls indigenous territories and who owns or controls the resources within them. This course, using settler documents, oral accounts, government legislation and court decisions, from the late 1700s to the present, will examine the historic understandings of the treatise and how they represent the "law of the land" within this country.

## HIS 301

Colonial America
3-3-0
Examines through readings and seminar discussions, the social, economic, cultural and political development of the Anglo-American colonies to 1776. Topics to be covered include the formation of colonial societies, the creation of slave and free economies, religious and political thought in transition, and the Anglo-American colonies as part of the British empire.
HIS 302
British North America
3-3-0
Examines the history of the British North American colonies from a regional and thematic perspective. Topics include economic growth in an imperial context, immigration, the rebellions in the Canadas, regional and ethnic identities, and relations with the United States.
HIS 306 Environment and Society in North America 3-3-0
This course traces the relationship Canadians and Americans have had with their environment within a political, economic and intellectual context. Intertwined with this history will be First Nations' views and issues with respect to the land and natural resources.

HIS 307 The American Civil War
3-3-0
A seminar course which will analyse both the cause of the conflict and its political, social, military and diplomatic consequences.
HIS $338 \quad$ War and Society in Europe, 1914-1945
3-3-0
The first half of the 20th century in Europe was unprecedented in terms of the extent and intensity of war-related destruction and general social turmoil. Through assigned readings and discussions, this seminar course examines the causes and the impact of violent conflict in this period.
HIS 353 The War in Vietnam
3-3-0
This course examines, through a series of seminars, the causes and events of the Vietnam War, its political and social impact on the United States, as well as its effects on international relations.
HIS 354 Gender and Sexuality in the Pre-Modern World 3-3-0
This seminar course examines both the construction and everyday practices of gender and sexuality before the rise of modern viewpoints and sensibilities on the subject. By looking at various cultural groups, discussions will focus on the legal, socio-economic and cultural processes that shaped pre-modern understandings of these changing concepts. Issues such as the role of women in society, gender identity, masculinity/femininity, and marginalized sexual or gender practices will be analyzed taking into account the development of different perspectives within the historical profession.

HIS 393 Inquisitions, Law and Society
3-3-0
This seminar course focuses on the changing faces of inquisitorial practice, from the nascent medieval Inquisition and infamous characters like Bernard Gui to the modern papal version headed by Cardinal Ratzinger, not forgetting of course Torquemada's Spanish Inquisition and its less known Portuguese cousin. Relying on a thematic approach, the course will particularly examine the social and legal contexts of inquisitorial practice.
HIS 394 The Social History of Disease in the West
3-3-0
This seminar course will explore the construction of disease and its social and political repercussions by focusing on specific epidemics that have indelibly left their mark on the West. In particular, students will utilize primary sources within a corpus of historical literature to unravel the complex interactions brought about by epidemics such as the Black Death in Medieval Europe, Syphilis across the Early Modern World, Smallpox in the Americas, and most recently AIDS.
HIS 395 International Relations from 1870 to the Present 3-3-0 Since the end of the nineteenth century, the basis, nature and issues of international relations have profoundly changed. Through assigned readings and discussions, this seminar course will examine the evolution. Topics to be studied include the historiography of international relations, 'balance of power' system of the nineteenth century and its breakdown, the diplomatic history of the period of the world wars, the role of the UN, the Arab-Israeli conflict, the non-alignment movement, peace-keeping, and the rise of terrorism as a major international issue.

## HIS 396 Public History 3-3-0

This course is designed to introduce students to both the theory and practice of public history by examining sources from both Canada and the United States. By focusing on the origins and current issues of the field and by highlighting certain public history domains such as government consulting, museums and heritage sites, and the media, students will learn about information management, the demands of the client-contractor relationship and the ethical issues and controversies which make public history exciting and challenging.
HIS 397 Asia: Constructing a Region
3-3-0
Asia was imagined by Europeans and constructed from outside; yet Asians have increasingly asserted "Asian ways." This course interrogates the idea of Asia and its shifting borders, from orientalism to the discourse of the "Pacific Rim" to panAsian and nationalist narratives that place China, Japan, India or Southeast Asian states at the centre. Stress is placed on decolonization, nationalism, economic development through modernization paradigms and their challengers, internal challenges to the developmentalist state, and the interplay of local and international currents.

## Internships and other Capstone Courses

HIS 376 Global Studies Internship 6-6-0
Unpaid internship at an approved overseas organization under the joint supervision of organization staff and a member of faculty. Students will be evaluated on the completion of pre-established objectives which will include a written reflection component. The course requires some in-person preparation before departure. A reflection paper is expected after completion of the overseas experience. Note: American students on financial aid cannot take this course for credit Unpaid internship
Prerequisite: Permission from the instructor.
HIS 377 Teaching Internship in History 3-3-0
Unpaid internship working directly with a Bishop's professor. Students will assist in teaching the course through such tasks as leading disucssion groups and develop teaching skills under the supervision of a member of faculty. Students will be evaluated on various scales including a reflection paper on their experience
Prerequisite: Permission from the instructor.

HIS 391 Archival or Institutional Internship 3-3-0
Unpaid internship in a local archival repository or other institution under the joint supervision of an archivist or other representative and a member of faculty. Students will be evaluated on the completion of pre-established objectives and must be prepared to perform a variety of projects such as writing a major report, preparing an archival inventory or a finding aid.
Prerequisite: Permission of the public history coordinator.

## HIS 392 Research Internship

3-3-0
Unpaid internship under the supervision of a member of the department. The student will be responsible for undertaking research related activities in support of the research project of a faculty member.
Prerequisite: Permission from the instructor:
HIS 399 Senior Research Paper in History 3-3-0
Individualized research project in consultation with a faculty advisor. Students will be expected to make an original contribution to a topic through primary source research in relation to existing literature. The final product will be an article-length paper and a formal oral presentation to department faculty and other students. Prerequisite: Permission from the instructor.

## Independent Studies and Other Courses

HIS 286
HIS 287
HIS $299 \quad$ Independent Studies for U2 Students
A course that addresses the historical background of current headlines or special
topics of contemporary interest for both History majors and other interested
students. Topics vary from year to year and explore different regions, time periods,
and methods.

## Cognate Courses

## Classics:

CLA 102, CLA 120, CLA 160, CLA 223, CLA 261.
Politics: Cognate courses must be selected in consultation with the Chair prior to registration in the course.

Psychology: PSY 342, PSY 443.
Religion: REL 257.

## Sociology: SOC 207.

Students in the Major or Honours program may count a maximum of 12 credits in cognate courses toward the degree. Students in the Minor program may count a maximum of 6 credits in cognate courses toward the degree.

## College of Liberal Arts

## Faculty

## Jenn Cianca,

B.A. (Bishop's), M.A. Ph.D. (Toronto); Associate Professor

## Bruce Gilbert,

B.A. (Toronto), M.A. (McGill),

Ph.D. (Penn.State); Full Professor
Coordinator for the Minor in
Social Justice and Citizenship
Chair of the Department

## Program Overview

The Bishop's College of Liberal Arts offers a dynamic, interdisciplinary major for particularly motivated students interested in the intensive study of the great themes and texts of Western civilization. The heart of the program is the Liberal Arts Foundation Courses (LIB 210-218), each of which engages, in an interdisciplinary and historical way, with a key theme in the history of the human condition. Students enrolled in the Liberal Arts Program are welcomed into Bishop's with an introductory seminar (LIB 100) and culminate their experience with a final year seminar (LIB 300) or any LIB 300 -level course. Liberal Arts majors also complete a series of requirements from other departments (see below), for a total of 63 credits. Students in the Liberal Arts Program are encouraged to complete a second Major in a discipline of their choice. Many courses may be counted towards the requirements of both Majors. The Liberal Arts Program also offers an Honours degree, which requires the completion of a comprehensive research thesis.

## Programs

## Liberal Arts Honours Degree ( 69 credits)

HONLIB
Liberal Arts students may opt to complete an Honours Degree. In addition to fulfilling the normal requirements for a Major (see below), an Honours student must register in the fall of his or her final year for LIB 400 (fall) and LIB 401 (winter), the requirement of which is to write a supervised, interdisciplinary Honours thesis. In keeping with Divisional regulations, a 70\% average, calculated on the best 60 credits in the program, would be necessary for graduation with an Honours degree.
LIB 400 Honours Thesis I 3-3-0 Each student researches, writes, and publically defends a comprehensive thesis proposal under the supervision of at least two faculty members, one of whom must be a member of the Liberal Arts Program faculty. Students must receive a grade of $75 \%$ or higher in this course in order to be permitted to register for LIB 401.

## LIB 401 Honours Thesis II <br> 3-3-0

Based on the proposal completed in LIB 400, students draft, revise, and defend an honours thesis, as examined by all members of the Liberal Arts Program.
Prerequisite: LIB 400

## Liberal Arts Major ( 63 credits)

## Required Courses

## 1. First Year Seminar Course

First year Liberal Arts majors enroll in this course in their first semester at Bishop's, or the first time it is offered after they become a Liberal Arts Major.

## LIB 100 Introduction to the Study of Western Culture 3-3-1

By means of a study of classic texts in the Western cultural tradition, this class develops foundational skills in interdisciplinary education, reading, writing, conversation and seminar presentation.

## 2. Other First Year Requirements

- All Liberal Arts Majors must take CLA 100 or CLA 101 along with LIB 100, a Liberal Arts Foundation Course, and two electives in their first semester at Bishop's.
- All Liberal Arts Majors must take an Introduction to Philosophy and an Introduction to Religion course, as well as a Liberal Arts Foundation Course and two electives in their second semester at Bishop's.
- All Liberal Arts Majors must take FIH 101 or FIH 102 and HIS 104 in their first or second year at Bishop's. These courses help students get a sense of the broad scope of Western history (as opposed to more specialized historical topics).


## 3. Liberal Arts Foundation Courses

Normally Liberal Arts students are enrolled in one Liberal Arts Foundation Course in each semester of their degree. Majors must complete at least four Foundation Course credits. Each course has a "culture" component that requires students to attend and discuss a selection of plays, musical performances, art exhibitions, or lectures each semester.
LIB 210 Eros, Love and Desire
LIB 211 Empire and Its Enemies
LIB 212 In Search of Justice
LIB 213 The Use and Abuse of Beauty
LIB 214 Ecological Crisis and the Struggle for
Environmental Justice
LIB 215 Ecstasy and Excess
LIB 216/REL 208 The Divine and Ultimate Concern
LIB 217 Space, Place \& the Human Experience
LIB 218 The History and Philosophy of Science

## 4. Graduating Year Seminar

LIB 300 Interdisciplinary Seminar $\quad$ 3-3-0
A team-taught seminar which will explore a selected theme of interdisciplinary interest.

## 5. Language Requirement

Liberal Arts Major are required to take three courses in any single language (ancient or modern) and must have begun their language requirements by their second year.

## 6. Social Sciences Requirement

Any two Social Science courses ( 6 credits).

## 7. Natural Sciences/Mathematics Requirement

At least one course (3 credits) from Natural Sciences or Mathematics.

## 8. Humanities Breadth/Depth Requirements

Liberal Arts Majors are required to take 6 credits from two of the following three departments: Drama, English, Music.

Liberal Arts Majors are also required to take three 300-level courses in the Humanities (including LIB capstone course).

## Minor in Social Justice and Citizenship ( 24 credits)

A healthy democracy requires that its citizens have the insight and skills to freely govern themselves. The university is therefore a vital institution to democracy. Accordingly, Bishop's University is committed to help its students learn "to practice the respectful and informed dialogue that sustains democracy [and] to exercise the rights and responsibilities of good citizenship."

While each department and program in the university effects this principle in its own way, the Minor in Social Justice and Citizenship takes this goal as its explicit aim. Each student enrolled in this minor completes eight courses ( 24 credits) made up of a mandatory theory course (LIB 212 or LIB 217), an internship of either one or two semesters (LIB 222 and LIB 223) and a further five or six courses chosen from the elective list below. In LIB 212, "In Search of Justice," students seek to understand the nature of human freedom, the institutions and cultural practices that seek to cultivate it, and the forms of power and manipulation that threaten and undermine it. In LIB 217, "Space, Place, and the Human Experience," students explore questions of social justice inside a spatial framework, in an attempt to understand how place making and spatial structures play into the formation of society \& culture. In LIB 222 and LIB 223, "Citizenship and Democratic Practice," students not only learn about the agents of democratic practice in civil society (individuals, artistic and cultural communities, social movements, NGOs, churches, etc) but are also required to participate in supervised internships in local and regional community and civil society organizations. Students in the Minor are also encouraged to do at least one of the international courses affiliated with the Minor: LIB 370 Social Movements and Social Change in Brazil, LIB 371 New Orleans: Art, Activism and Culture before and after Katrina, and SLP 399 Praxis Malawi.

## List of Courses

## Liberal Arts Foundation Courses

LIB 210 Eros, Love and Desire 3-3-0
When Plato wrote that eros is "giving birth in beauty," he sparked a debate that has lasted millennia. Does the erotic lead us upwards toward wisdom, truth, and love of thy neighbour? Or is eros the chaotic, anti-social, and even destructive force of Dionysian rapture? This course will explore these and other classic theories of eros, love and desire.
LIB 211 Empire and its Enemies 3-3-0
"The sun never sets in my empire," said Spanish King Carlos I in the 16th century-a phrase adopted by the British to signal not only the planetary breadth of their imperial achievement, but also the divine, solar blessing conferred on their conquests by God. What is this imperial aspiration, the desire to dominate? Why is Western history in a sense the history of empires constructed and empires resisted and destroyed? This course will trace the imperial aspiration and its enemies from the Roman city-state to the British nation-state to the eclipse of the state altogether by the modern capitalist corporation. It will analyze the various forms and modes of dominance and resistance up to and including the non-state actors of today.
"Let justice roll down like water, and righteousness like an ever flowing stream." So cried the prophet Amos, echoed thousands of years later when Martin Luther King insisted that "Power at its best is love implementing the demands of justice!" This course will explore the changing and always contested meaning of justice in its many forms in Western history. Is justice little more than the ancient Greek claim that one should "do good to one's friends, and harm to one's enemies"? Or is there a universal form of justice that recognizes civil rights and social justice for the poor, women, racial and ethnic minorities, gays and lesbians, and other marginalized peoples?

## LIB 213 The Use and Abuse of Beauty <br> 3-3-0

French writer Stendhal said in the 19th century that "beauty is the promise of happiness" and, upon seeing the beauty of Florence, he wondrously proclaimed, "I was in a sort of ecstasy... absorbed in the contemplation of sublime beauty ... Everything spoke so vividly to my soul." Yet only decades later his compatriot, poet Arthur Rimbaud, claimed that he wanted to "abuse" beauty, for he found it "bitter." Dadaist and surrealist artist Tristan Tzara went even further, "I have a mad and starry desire to assassinate beauty..." Does Tzara signal not only a dramatic change in Western art, but the claim that all forms of harmony and beauty, including the personal and the political, are conservative. Or is the beautiful in some important sense still of what we might call "transcendent" importance to human life? This course will explore the fate of the beautiful, from the Greeks to 21 st century life.

## LIB 214 Ecological Crisis and the Struggle for Environmental Justice

3-3-0
Global warming, mass extinction and runaway pollution by toxic waste, plastics and other contaminants are only the most widely publicized aspects of what scientists agree is an ecological crisis that affects everyone and everything on the Earth. Paradoxically, nature and wilderness are not only necessary conditions for human well-being, but also have been amongst the greatest sources of our spiritual and artistic inspiration for centuries. Given that new generations will play a decisive role in addressing this crisis, this course will explore international dimensions of the historical, philosophical and cultural background of various forms of the human relationship with nature, as well as examine some of the theories (agro-ecology, eco-feminism, deep ecology, emergence, etc.) and kinds of social movement organizing (Greenpeace, 350.org, Leap, etc.) that reply to the ecological crisis. The course will also introduce certain aspects of the experience and struggle of Indigenous peoples (e.g. Idle No More, Dakota Access, socioenvironmental rights in Brazil, etc.), including of the Abenaki First Nation, upon whose unceded land Bishop's University is built.

## LIB 215 Ecstasy and Excess

3-3-0
"Joy is the most comprehensive mind... and it is from the summits of joy alone that each one will see the path to take." American philosopher Alphonso Lingis claims here that humanity is the "ecstatic" species. In Greek the ek-static means literally to be outside, even beyond oneself-to transcend what and who one is. In the last few hundred years, artists, writers, philosophers, and others have claimed that ecstasy and excess are not merely temporary states, but the very condition of human life. This course will explore a variety of theories, from the biological to the philosophical and the virtual, inspired by the idea that there is no "human nature" that we can't exceed.

## LIB 216 /

REL 208 The Divine and Ultimate Concern
3-3-0
The divine is that about which we are "ultimately concerned"-so said theologian Paul Tillich of Union Seminary in New York. Is this just a last-ditch attempt to salvage faith and spirituality in the midst of charges that religion is, at best, an "opiate of the masses" (Marx) and, at worst, "patently infantile" (Freud)? Or again, is the role of religion being taken over by its long time sister in spirit-art? This course will explore the troubled and passionate place of religious experience and the aesthetic in Western civilization.
LIB 217 Space, Place \& the Human Experience 3-3-0
Our environment has a powerful impact on our experiences and perceptions. In this course, the relationship between our bodies and the spaces they occupy will be examined. The difference between space and place will be explored, along with particular notions of each, including: empire and nation, home and homelessness, sacred spaces and places, liminal spaces, and mythical places. Through the examination of key texts, students will become familiar with essential notions of space and place, and the ways in which specific communities have engaged these notions in the formation of identities, both individually and collectively.

LIB 218 The History and Philosophy of Science 3-3-0 Modern science has given us an unprecedented understanding of nature - and with it, the power to transform our natural environment irrevocably. This interdisciplinary course will explore some key themes In the history and philosophy of science: the origins and evolution of Modern science; its roots in pre-Modern philosophy of nature; Its flowering in the Scientific Revolution; the Modern era, in which science ad scientific method is often taken for granted as the authoritative paradigm for all knowledge; the enormous contribution of science to society, economy and culture; as well as some Important criticisms of the extent and character of scientific exploration of nature and human beings.

## Liberal Arts Thematic Seminar Courses

These courses are in-depth, interdisciplinary seminar courses on topics relevant to the program of study of Liberal Arts majors. Instructors and topics are determined each year.
LIB 222 Citizenship and Democratic Practice I 3-3-0
Students learn not only the role and importance of civil society organizations, such as social movements, community groups, NGOs, churches and so on, but also commit themselves to an ongoing supervised internship in one or more of these organizations in Lennoxville, Sherbrooke or the wider Eastern Townships. At least one or both of these internship courses (depending on the demands of each internship) is required for the Minor in Social Justice and Citizenship.
LIB 223 Citizenship and Democratic Practice II
3-3-0
Students learn not only the role and importance of civil society organizations, such as social movements, community groups, NGOs, churches and so on, but also commit themselves to an ongoing supervised internship in one or more of these organizations in Lennoxville, Sherbrooke or the wider Eastern Townships. At least one or both of these internship courses (depending on the demands of each internship) is required for the Minor in Social Justice and Citizenship.

## LIB 270 /

ITA $270 \quad$ Venice And Its Mystique 3-3-1*
"As the Twentieth century draws to a close, no one knows quite what to expect, if anything, of the future. There is a strong need for magic, for a place that is outside of time, for a postponement of reality. For Venice." -Gore Vidal
Once the crossroad of western and eastern civilizations, over the centuries Venice has been seen as the symbol of freedom and cosmopolitanism, but also as the city where artistic and cultural production can thrive. Venice surreal setting and the lushness of its artifacts have become emblematic of the cultural production of Western civilization, creating a unique landscape of unsurpassed aesthetic richness. It is in this exceptional urban scenery, that blends together water, art and culture, that this five-week course will take place. This language and culture course will provide students with a basic knowledge of Italian and familiarize them with the history and culture of one of the few cities that can fulfill our "need for magic," the "Serenissima." This course will be taught in English. Students who wish to count the course for Italian credit will submit their assignments in Italian and participate in certain additional activities in Italian.

## LIB 289 /

GER 289 History and Memory in Berlin
3-3-1
This interdisciplinary course will explore (re)writings of German history by intellectuals and artists associated to Germany's capital, (re)writings which expose the flaws and fallacies of a nation's narrative. We will focus on the Weimar Republic, The Cold War and its aftermaths. Starting with a brief overview of Georg Simmel's sociological depiction of the metropolis, we will then look at how works from Weimar Berlin revealed not only the instability of the nation's founding myths but also the conflicts and contradictions which plagued the Weimar Republic (in literature, Benjamin, Brecht, Döblin; in visual arts, Dix, Grosz, Kirchner). We will then turn to the Cold War and its aftermaths, to examine how memory gets (de) constructed in literary texts and songs (Brussig, Grünbein, Bargeld), films (Wings of Desire, Berlin is in Germany), and architecture (Jewish Museum, Holocaust Memorial, documentary Berlin Babylon).
No prerequisite

LIB 290 /
GER 290 (De) constructing Identity in Vienna 3-3-1
In this course, we will examine how intellectuals and artists associated to Austria's capital have been, ever since the advent of Freudian psychoanalysis, enlightened witnesses to their nation's identity construction. Our interdisciplinary approach will enable us to investigate our topic from a variety of angles, focusing on two periods of Austrian history, namely the period around 1900 and the aftermaths of WWII. Starting with a brief introduction not only to Freud's psychoanalytical theories but also to his sociological observations (Civilization and its Discontents), we will look at how literature (Schnitzler, Hofmannsthal, Zweig) and visual arts (Klimt, Schiele, Kokoschka), in the Vienna of 1900, portrayed the individual's unconscious desires and torments. We will then turn to the aftermaths of WWII and study literary texts (Bachmann, Bernhard, Jelinek) and films (Haneke) which engage with Austrian history and culture, with a nation's repressed feelings of anger and guilt.
No prerequisite
GER 292 /
LIB 292 The Problem of Education
3-3-1
For Madame de Staël, a French contemporary of Goethe's, Germany was das Land der Dichter und Denker, whereas for many of our contemporaries, Germany is but the land of National-Socialism. How could the people who gave the world the humanistic ideal of Bildung also be the people who devised concentration camps and the final solution? It is impossible to avoid this question when engaging with German Studies. This course will examine the pedagogical intent, philosophy of education and critique of German education present in the works of some of the most important German writers from the Enlightenment to the post-war period. By means of discussions of fiction and non-fiction, we will explore the German discourse on education, from the early bourgeois ideal of Bildung (Lessing, Humboldt, Goethe, Schiller) to Nietzsche's critique of educational institutions, from Musil's depiction of the joyless life of a Gymnasium to later explorations (by Brecht, E. Mann, Arendt - but also in films by Riefenstahl, Schlöndorff and Haneke) of the perversion of the ideal of education in 20th century Germany, namely under National-Socialism.

## GER 293 /

LIB 293 In Sickness and in Health 3-3-1
This course will explore representations of sickness and health in the modern Western cultural tradition. We will read literary masterpieces from modern Russian, Scandinavian and German literature - from Gogol (Diary of a Madman), Tolstoy (The Death of Ivan Illich), Hamsun (Hunger), Ibsen (A Doll's House), Schnitzler (Fräulein Else), Mann (Tristan) and Kafka (The Metamorphosis). Our discussions will be informed and enriched by canonical texts on this theme by Nietzsche (The Case of Wagner), Freud (on Dora) and Sontag (Illness as Metaphor), amongst others, and by works from the visual arts dealing with sickness and health. We will observe how the suffering body and soul experiences sickness in solitude and shame, as an unacceptable failure. Inspired by the idea that a diagnosis is a gnosis, we will also explore how the introspection which arises from that illness and solitude leads one to creation - that is to story-telling, as one wishes to make sense out of that which seems senseless.

## GER296 /

LIB296
Goethe's Faust
3-3-1
In this course, students will read THE masterpiece of German literature: Goethe's Faust, in Walter Kaufmann's celebrated translation. We will read all of part I and excerpts of part II. We will look at Goethe's sources - from the early Historia von Dr. Johann Fausten (based on a true story - that of a magician) to travelling puppet shows about Faust which Goethe enjoyed as a child. This discussion of sources will enable us to see just how modern Goethe's Faust is - in its (for the time) subversive depictions of God, the devil, the quest for knowledge and the pleasures of the flesh. We will also examine how the story of Faust never ceased to inspire artists who created countless variations on the theme - from Gounod's opera to Murnau's expressionist film, from Mann's novel Doktor Faustus to Kurosawa's film Ikiru, to name but a few.

## GER297 /

LIB297 From Cosmos to Chaos:

## The Discourse on Nature in German Culture

3-3-1
The aim of this interdisciplinary course is twofold: to introduce students to the emergence and evolution of ecological thought in German culture from the Middle Ages to the present, and to reflect on the resonance of such thought in 21 st century's most pressing preoccupation: the destruction of our planet and the extinction of species. Particular attention will be given to the spiritual, artistic, and literary expression of humans' relationship to nature. Among the famous thinkers and artists whose works will be studied are Hildegard von Bingen, Alexander von Humboldt, Joseph Beuys, W. G. Sebald.

LIB 303
On the Road Again: Pilgrimage in Theory and Practice 3-3-0 This course will examine pilgrimage as embodied experience, with a special focus on contemporary pilgrimage. Cross-cultural approaches and historical context will be key to understanding the current fascination with walking as transformative practice. Theories of identity, community, and belonging will also be discussed. Students will have an opportunity to participate in a short pilgrimage.
LIB 370 Social Movements and Social Change in Brazil 3-3-0
This is an intensive spring course that takes place primarily in Brazil. It consists of the study of Brazilian social movements, politics and culture in general and, in particular, the Movement of Landless Rural Workers (Movimento de Trabalhadores Rurais Sem Terra do Brasil, or MST). The course will include studies of and meetings with Brazilian social movements, labour unions, political parties, universities and other actors on the political scene in Brazil. The period in Brazil would be preceded and followed by research and essay assignments. The language of instruction is English, and all meetings in Brazil are translated.
LIB 371 New Orleans: Art, Activism and Culture

## before and after Katrina

3-3-0
Students in this course prepare for a March study trip to New Orleans by researching the history, politics and culture of this extraordinary city. There will be a particular focus on the aftermath of the Hurricane Katrina disaster, including activist and social movement organizing in response to the destruction of whole neighborhoods. On the basis of their research and experiences in New Orleans, each student will write and submit a comprehensive research paper at the end of the semester.
LIB 384 /
ITA 384 Dante's Divine Comedy 3-3-1 According to Dante Alighieri, none of us can salve the wound in our souls without undertaking our own pilgrimage to hell, without purging our sins, and without letting go of ourselves so as to experience ecstatic union with the foundations of all reality. This is perhaps what James Joyce meant when he said that Dante is his "spiritual food" and that reading Dante is like "looking at the sun." This course will unfold some of the philosophical, poetic, religious, political and historical richness of Dante's allegorical masterpiece and lead each student on a personal journey through Inferno, Purgatorio and Paradiso.

## LIB 385 /

ITA 385
Giovanni Boccaccio's Decameron
3-3-0
One of the most enjoyable, beloved and imitated literary works of all time, the Decameron by Giovanni Boccaccio (1313-1375) is among the great texts whose influence transcends the written word and expands into almost every area of the Western cultural tradition. A book on love according to Boccaccio himself, this masterpiece is in reality an audacious and sophisticated human comedy that brings to the reader the richness of life. Through an in-depth reading of the short stories that comprise the work, this course will explore the philosophical, historical, political, social, and gender related issues that arise from this literary masterpiece. We will also examine the enormous influence this text had on future visual and performative arts, literature and music

## LIB 386

Montaigne's Essays and Early Modern Humanities
3-3-0
This course is an exploration of Michel Montaigne's Essays, published in three volumes between 1580-1588. Framed by his celebrated phrase "What do I know?" (Que sais-je?), these writings examine the human condition with the fresh outlook of early modern skepticism. As Montaigne searches for moral examples that can assist us in the conduct of our lives, he gives surprising new inflexions to traditional wisdom on topics such as love, friendship, education, conversation, health, and dying.
LIB 387 Exuberant Beauty: The Poetry, Visual Art and Philosophy of William Blake

3-3-0
For William Blake beauty is not the delicate, the calm or the harmonious, but the exuberant. For William Blake the pathway to wisdom is not prudence or fear, but excess. This extraordinary poet, visual artist and philosopher created a new world of culture in which humans are fulfilled only in the creative imagination. His poetry, engravings and paintings are unique and brilliant and his philosophy stakes revolutionary claims that are usually credited to later thinkers like Hegel and Nietzsche. In this course we will study Blake's works with an eye to understanding his philosophical originality. We will follow the great literary critic Northrop Frye's advice to "Read Blake or go to hell."

## Liberal Arts Independent Studies

LIB 230 Independent Study I 3-3-0 Students pursue a course of directed, independent study on an interdisciplinary theme under the supervision of a faculty member.
LIB 231 Independent Study II $\quad \mathbf{3 - 3 - 0}$ Students pursue a course of directed, independent study on an interdisciplinary theme under the supervision of a faculty member.
LIB 232 Independent Study III $\quad \mathbf{3 - 3 - 0}$
Students pursue a course of directed, independent study on an interdisciplinary theme under the supervision of a faculty member.
LIB 233 Independent Study IV 3-3-0
Students pursue a course of directed, independent study on an interdisciplinary theme under the supervision of a faculty member.

## Elective Course List for the

## Social Justice Minor:

Students must take any five or six courses from this list, albeit no more than three from any one department (depending on their internship).
EDU 305 Multicultural Education
ENG 239 Feminist Literary Theory
ENG 342 Romanticism and Revolution
ESG 224 Human Impact on the Environment
ESG 248 Geography of Food
ESG 266 Environmental Policy
ESG 268 Global Environmental Change
ESG 350
ESG 366
HIS 108
HIS 217
HIS 269
LIB 211
LIB 214
LIB 370
LIB 371

PHI 100
PHI 104
PHI 349
PHI 324
PHI 340
PHI 342
PHI 366
REL 200
SOC 207 Sociology of Indigenous-Settler Relations
SOC 208 Criminology
SOC 235 Women and Penal System
SOC 250 Social movements
SOC 260 Community
SOC 292 Social Policy
SOC 298 Social Problems
SOC 309 Advanced Seminar in global Colonization and Decolonization
SOC 340 Women: Theory and Ideology
SOC 396 Post-Colonial Theory
WOM 101 Introduction to Women's Studies
WOM 201 Women and Feminism in Canada
WOM 305 Women and Feminism: Selected Topics
SLP $399 \quad$ Situated Learning and Praxis (Praxis Malawi)

# Modern Languages, Literatures and Cultures 

## Faculty

Modern Languages,
Literatures and Cultures
German Studies Sophie Boyer,
B.A., M.A., Ph.D. (McGill); Professor Chair of the Department

## Hispanic Studies

Gilberto D'Escoubet,
B.A., M.A. (U de Montréal),

Senior Instructor
Jordan Tronsgard,
B.A., M.A. (Calgary), Ph.D. (Ottawa) Professor

## Japanese Studies

Katsunori Hizawa,
B.A. (Waseda), M.A.(Illinois);

Special Instructor

## Program Overview

The Department of Modern Languages, Literatures, and Cultures offers an Honours program in Hispanic Studies, Majors in Modern Languages and Hispanic Studies, International Major in German, as well as Concentrations/Minors in German Studies, Hispanic Studies, and Japanese Studies (International Concentration).

## Major in Modern Languages (60 credits)

This major is equally divided between two language Concentrations (30/30), which will be specified on the student's final transcript. The languages available for Concentrations are German, Japanese and Spanish, as well as English Language Studies and French (offered by the Département des études françaises et québécoises). Students may choose one of their Concentrations in English or French, but completing Concentrations in English and French is not permitted for the Major in Modern Languages. The requirements and courses for the Concentrations within the Major in Modern Languages are listed under each specific language.

## * Please note:

1) MLA 101 is a graduation requirement for all Majors in the MLA department and will normally be taken in the first year of studies. The following students are exempt from this requirement: Students with an Honours in Hispanic Studies, students taking the Major in Hispanic Studies on a part-time basis, students with more than one major. Other students may request an exemption if there is not sufficient space in their curricula.
2) Students registered in the Major in Modern Languages must declare their two languages by the end of their first year.
3) Students enrolled in all Majors in the MLA department must successfully complete the Information Retrieval and Evaluation Skills for the Humanities Lab (ILT 102). This one-credit laboratory course should be taken in the first or second year of studies.
4) Unless otherwise stated, all courses will be taught in the language specified in the course title.

## Adjunct Concentration in Modern

## Languages ( 30 credits)

CONAGS, CONAHS, CONAJS and CONAFS A 10-course concentration in a single language: German Studies, Hispanic Studies, Japanese Studies (International), French (intermediate or advanced levels). This is effectively one half of a two-language Major in Modern Languages with the typical 10 -course concentration. The specifications for this adjunct concentration are identical to those currently specified in the different language sections in the academic calendar.

## Certificate in Modern Languages

## (30 credits)

## CONMLA

The Certificate is designed to provide part-time students with a working knowledge of at least two of the modern languages taught at Bishop's University: French, German, Japanese, and/or Spanish.

Students must choose two main languages of concentration and complete at least 12 credits in each. The 6 remaining credits may be taken in either of these two main languages, or in one other language. Please consult course offerings under individual languages within the Department of Modern Languages, Literatures, and Cultures, the Department of English and the Département des études françaises et québécoises.

Credits obtained in the certificate program may be applied towards a degree program in Modern Languages; however, students may not be enrolled simultaneously in a degree program and in the Certificate in Modern Languages.

## Modern Languages Course

MLA (Modern Languages) courses are offered by the Department of Modern Languages, Literatures and Cultures through the collaboration of the different language sections. These courses may be taken as free electives or as part of the Humanities Divisional Requirement.
MLA 101 Issues in Language and Linguistics 3-3-0 Does language actually shape the world that surrounds us? Are there definitive language universals? Are all languages of equal complexity? This course will provide students with an overview of issues in the study of languages. It will introduce them to basic concepts in linguistics, familiarize them with the main components of language and common pursuits of linguists, and expose them to some long-standing debates in the field.
No prerequisite

## Abenaki Language Courses

## ABE 101 Abenaki Language and Culture I <br> 3-3-1

This course will provide an introduction to the basic elements of the Abenaki language and culture. Emphasis will be on basic grammatical structures and vocabulary, listening comprehension and pronunciation. Key features of Abenaki culture will be examined, such as oral tradition, historical and cultural context. No prerequisite
ABE 102 Abenaki Language and Culture II
3-3-1
This course is a continuation of ABE101. Further development of vocabulary building, grammar skills and fluency. Further exploration of various aspects of Abenaki culture.
Prerequisite: ABE 101 or equivalent

## Mandarin Courses

CHI 101 Introduction to Modern Chinese (Mandarin) I 3-3-1
Designed for students with no previous knowledge of Chinese, this course provides an introduction to the basic elements of modern vernacular (Mandarin) Chinese. Emphasis will be on basic grammar, vocabulary, written characters, listening comprehension and pronunciation. Students will also be introduced to various aspects of Chinese culture.

CHI 102 Introduction to Modern Chinese (Mandarin) II 3-3-1
This course is a continuation of Chinese 101a. It aims at further developing listening, speaking, reading and writing skills in Modern Chinese.
Prerequisite: CHI 101 or equivalent

## German Studies

The German Studies Section offers courses in the following categories: Language, Literature, Cinema and Civilization, and Independent Studies. Third-year course offerings will vary regularly over a three-year cycle.

All Literature, Cinema, and Civilization courses are offered in English. Students in a German Studies program who have completed at least GER 102 or equivalent will attend a weekly labhour where texts will be read and discussed in German. Written work in German will also be assigned within the framework of the lab-hour.

## Please note:

(1) Majors in Modern Languages with the German Studies Conce ntrations, adjunct concentration students, and minors in German Studies must take GER 203 Intermediate German: Topics and Texts I concurrently with GER 201 Intermediate German Language I, and GER 204 Intermediate German: Topics and Texts II concurrently with GER 202 Intermediate German Language II.
(2) Independent Study Courses are only offered to students with high academic standing.

## Major in Modern Languages with concentration in German Studies ( $\mathbf{3 0}$ credits for concentration) MAJMLA + CONGER

The German Studies Concentration in the Major in Modern Languages consists of 30 credits with a minimum of 6 credits in literature, film and civilization courses.

## International Major in German Studies (45 credits) <br> MAJGIN

The International Major in German Studies requires the completion of 42 credits in German and MLA 101. Among the German credits, at least 12 must be drawn from courses in literature, film and civilization. With departmental approval, some of these courses may be double-counted for another program concentration.

This program requires the completion of German course credits abroad; students are thus expected to spend at least one semester at a partner university in Germany. Students should apply for acceptance to this program before going on exchange, and they should consult with the Head of the German Studies Section regarding the selection of appropriate exchange courses.

## Minor in German Studies (24 credits)

MINGER

## International Exchange

All Bishop's students wishing to take part in the International Exchange Program to Germany have to provide proof that they possess a level of proficiency in German adequate to the demands of such a program in one of two ways: 1-certification by Bishop's German Studies Section or, 2-an official certification issued by the Goethe Institut called TestDaF (Test Deutsch als Fremdsprache). The German Studies section certifies that a student has an adequate degree of proficiency in German once they have completed 18 credits at our institution if they are beginners without a previous background in German (GER 101, GER 102, GER 201, GER 202, GER 203, and GER 204) [ Students who have previously taken German-language courses at the CEGEP or High School levels are excused from the first two courses (GER 101, GER 102)] Students who do not wish to take German-language courses at Bishop's can provide proof of their proficiency level in German by producing a document that attests they have successfully passed the TestDaF. In order to qualify for the exchange program, the student has to pass the TestDaF at the B2 (Advanced level), which is the equivalent of the curricular plan at Bishop's. Under no circumstances can the German Studies section certify the level of proficiency of students who have not completed the courses required by its curricular plan.

## List of German Courses

## Language Courses

GER 100 Introductory German Language I-II:
Intensive Course
This course covers the contents of GER 101 and GER 102 in one semester. No prerequisite
GER 101 Introductory German Language I $\mathbf{3 - 3 - 1}$
This course provides students with a sound basis for learning German as it is used in spoken and written communication today within the context of Germanspeaking culture. It also familiarizes students with contemporary life and culture in German-speaking countries. Language laboratory exercises are included.
No prerequisite

GER 102 Introductory German Language II
3-3-1
Continuation of GER 101. This course offers systematic practice in the four language skills of listening, speaking, reading, and writing. It also provides a firm foundation in the basic elements of German grammar. Language laboratory exercises are included.
Prerequisite: GER 101 or equivalent
GER 201 Intermediate German Language I 3-3-1
This course is designed to increase students' ability to function in German. It offers a comprehensive review of German grammar through written and oral assignments. Authentic cultural texts and video activities, as well as the systematic development of vocabulary, help students further develop their communicative skills. Language laboratory exercises are included.
Prerequisite: GER 100 or GER 102 or equivalent
GER 202 Intermediate German Language II
3-3-1
Continuation of GER 201. Further emphasis on active vocabulary building and grammar review. Language laboratory exercises are included.
Prerequisite: GER 201 or equivalent
GER 203 Intermediate German: Topics and Texts I 3-3-0
The purpose of this course is to provide students with an authentic context for the assimilation of vocabulary and culture necessary for oral and written communication. Methodology includes the use of dialogues, journalistic and literary texts, video and audio material on specific topics relevant to the Germanspeaking world.
Prerequisite: GER 100 or GER 102 or equivalent
GER 204 Intermediate German: Topics and Texts II 3-3-0
Continuation of GER 203. Further emphasis on written assignments and speaking activities such as small group discussions and oral reports.
Prerequisites: GER 201 and GER 203 or equivalent
GER 301 Advanced German Language:
Reading and Translating German I
3-3-1
This practical course will introduce students to reading and translating German. We will read a contemporary novel in German. We will also practice translating shorter German texts of different genres into English (students may be allowed to translate into French). This course will enable students to enrich their vocabulary, review German grammar, familiarize themselves with translation from German and develop their cultural competency with regard to the German-speaking world. Language laboratory exercises are included.
Prerequisites: GER 202 and GER 204 or equivalent
GER 302 Advanced German Language:
Reading and Translating German II
3-3-1
Continuation of GER 301. Language laboratory exercises are included.
Prerequisite: GER 301 or equivalent
GER 303 Advanced German Language:
Language and Culture I
3-3-1
This course provides students with a review of German grammar as well as an overview of German history and culture. This course will enable students to review and practice grammatical structures previously learned and to develop their cultural competency by engaging with key developments within German-speaking cultures, including aspects of history, philosophy, literature, music and visual arts. Language laboratory exercises are included.
Prerequisites: GER 202 and 204 or equivalent
GER 304 Advanced German Language:
Language and Culture II
3-3-1
Continuation of GER 303. Language laboratory exercises are included.
Prerequisite: GER 303 or equivalent
GER 305 Advanced German Language:
Language, Literature and Film I 3-3-1
This course provides students with a review of German grammar as well as an overview of German literature and German cinema. This course will enable students to review and practice grammatical structures previously learned and to acquaint themselves with key German-language texts and films. Language laboratory exercises are included.
Prerequisites: GER 202 and GER 204 or equivalent
GER 306 Advanced German Language:
Language, Literature and Film II
3-3-1
Continuation of GER 305. Language laboratory exercises are included.
Prerequisite: GER 305 or equivalent

## Literature, Cinema, and Civilization Courses

## GER 235 Gods and Heroes, Devils and Witches:

 Introduction to German Literature and Culture3-3-1
This course provides students with an introduction to German literature and culture, from the Middle Ages to the end of the 19th century. The selected texts depict popular characters that have shaped, inspired and influenced the German national narrative. Students will get acquainted with Germanic mythology, the story of Dr. Faustus, popular fairy tales and operas by Richard Wagner, amongst others. It will examine a representative selection of German literary masterpieces from various periods and genres.
No prerequisite
GER 250 German History in Recent German Films
3-3-1
This course will explore how the German past (fascism, terrorism, communism) is depicted in recent German films. Students will get acquainted with key events of German history in the 20th century, with key developments in recent German cinema and with Germany's national narrative at the beginning of the 21 st century. This involves viewing and critiquing films in class.
No prerequisite
GER 270
Introduction to German Film
3-3-4
This course provides an overview of the different movements that shaped the history of the German cinema: from expressionism to the new German comedy, from the Oberhausen manifesto to the Defa film industry of the former GDR. The ways in which film and its imagery reflect key features of Germany's recent past and present will be examined and discussed. Prominent directors to be studied may include Murnau, Lang, Staudte, Fassbinder, Wenders, Dörrie, Carow, Wolf, vonTrotta and others.
No prerequisite
GER 271 Rebels with a Cause: East German Cinema
3-3-4
This course explores the history of East German cinema through the films produced by the state-owned studios of the DEFA (Deutsche Film-Aktiengesellschaft) from 1946 to 1992, and focuses on the following issues: the possibilities and limitations of socialist realism; censorship; the pursuit of individual freedom; gender and sexuality. A diversity of film genres will be studied including rubble films (Trümmerfilme), westerns, science fiction, and musicals. Attention will also be drawn to the post-Wende film production from directors who express nostalgia, Ostalgie, for life in the former GDR.
No prerequisite

## GER 289 /

LIB 289 History and Memory in Berlin 3-3-1
This interdisciplinary course will explore (re)writings of German history by intellectuals and artists associated to Germany's capital, (re)writings which expose the flaws and fallacies of a nation's narrative. We will focus on the Weimar Republic, The Cold War and its aftermaths. Starting with a brief overview of Georg Simmel's sociological depiction of the metropolis, we will then look at how works from Weimar Berlin revealed not only the instability of the nation's founding myths but also the conflicts and contradictions which plagued the Weimar Republic (in literature, Benjamin, Brecht, Döblin; in visual arts, Dix, Grosz, Kirchner). We will then turn to the Cold War and its aftermaths, to examine how memory gets (de) constructed in literary texts and songs (Brussig, Grünbein, Bargeld), films (Wings of Desire, Berlin is in Germany), and architecture (Jewish Museum, Holocaust Memorial, documentary Berlin Babylon).
No prerequisite

## GER 290 /

LIB 290
(De) constructing Identity in Vienna
3-3-1
In this course, we will examine how intellectuals and artists associated to Austria's capital have been, ever since the advent of Freudian psychoanalysis, enlightened witnesses to their nation's identity construction. Our interdisciplinary approach will enable us to investigate our topic from a variety of angles, focusing on two periods of Austrian history, namely the period around 1900 and the aftermaths of WWII. Starting with a brief introduction not only to Freud's psychoanalytical theories but also to his sociological observations (Civilization and its Discontents), we will look at how literature (Schnitzler, Hofmannsthal, Zweig) and visual arts (Klimt, Schiele, Kokoschka), in the Vienna of 1900, portrayed the individual's unconscious desires and torments. We will then turn to the aftermaths of WWII and study literary texts (Bachmann, Bernhard, Jelinek) and films (Haneke) which engage with Austrian history and culture, with a nation's repressed feelings of anger and guilt.
No prerequisite

War, Sex, and Crime:
Weimar Germany's Culture of Crisis
3-3-1
This course explores one of the most troubling, yet creative periods within German culture: the interwar years (1918-1939). Its aim is to provide students with a historical and aesthetic understanding of Weimar's artistic production, focusing mainly on literature. Attention will first be given to the traumatic experience of World War I and the ensuing father-son conflict. We will then turn to the rise of Berlin as metropolis and its many outsider figures, most importantly the criminal. A variety of works will be examined in which the criminal, and particularly the sex offender, both mirrors modernity's alienated individual and embodies the porous boundaries between the "normal" and the "abnormal". Works to be studied may include: Remarque's All Quiet on the Western Front, Ungar's The Maimed, Kafka's The Judgment, Döblin's Berlin Alexanderplatz, Kolmar's A Jewish Mother from Berlin, Lang's $M$.
No prerequisite
GER 292 /
LIB 292 The Problem of Education 3-3-1
For Madame de Staël, a French contemporary of Goethe's, Germany was das Land der Dichter und Denker, whereas for many of our contemporaries, Germany is but the land of National-Socialism. How could the people who gave the world the humanistic ideal of Bildung also be the people who devised concentration camps and the final solution? It is impossible to avoid this question when engaging with German Studies. This course will examine the pedagogical intent, philosophy of education and critique of German education present in the works of some of the most important German writers from the Enlightenment to the post-war period. By means of discussions of fiction and non-fiction, we will explore the German discourse on education, from the early bourgeois ideal of Bildung (Lessing, Humboldt, Goethe, Schiller) to Nietzsche's critique of educational institutions, from Musil's depiction of the joyless life of a Gymnasium to later explorations (by Brecht, E. Mann, Arendt - but also in films by Riefenstahl, Schlöndorff and Haneke) of the perversion of the ideal of education in 20th century Germany, namely under National-Socialism.
GER 293 /
LIB 293
In Sickness and in Health
3-3-1
This course will explore representations of sickness and health in the modern Western cultural tradition. We will read literary masterpieces from modern Russian, Scandinavian and German literature - from Gogol (Diary of a Madman), Tolstoy (The Death of Ivan Illich), Hamsun (Hunger), Ibsen (A Doll's House), Schnitzler (Fräulein Else), Mann (Tristan) and Kafka (The Metamorphosis). Our discussions will be informed and enriched by canonical texts on this theme by Nietzsche (The Case of Wagner), Freud (on Dora) and Sontag (Illness as Metaphor), amongst others, and by works from the visual arts dealing with sickness and health. We will observe how the suffering body and soul experiences sickness in solitude and shame, as an unacceptable failure. Inspired by the idea that a diagnosis is a gnosis, we will also explore how the introspection which arises from that illness and solitude leads one to creation - that is to story-telling, as one wishes to make sense out of that which seems senseless.
GER 296 /
LIB 296 Goethe's Faust 3-3-1
In this course, students will read THE masterpiece of German literature: Goethe's Faust, in Walter Kaufmann's celebrated translation. We will read all of part I and excerpts of part II. We will look at Goethe's sources - from the early Historia von Dr. Johann Fausten (based on a true story - that of a magician) to travelling puppet shows about Faust which Goethe enjoyed as a child. This discussion of sources will enable us to see just how modern Goethe's Faust is - in its (for the time) subversive depictions of God, the devil, the quest for knowledge and the pleasures of the flesh. We will also examine how the story of Faust never ceased to inspire artists who created countless variations on the theme - from Gounod's opera to Murnau's expressionist film, from Mann's novel Doktor Faustus to Kurosawa's film Ikiru, to name but a few.
GER297 /

## LIB297 From Cosmos to Chaos:

The Discourse on Nature in German Culture
3-3-1
The aim of this interdisciplinary course is twofold: to introduce students to the emergence and evolution of ecological thought in German culture from the Middle Ages to the present, and to reflect on the resonance of such thought in 21st century's most pressing preoccupation: the destruction of our planet and the extinction of species. Particular attention will be given to the spiritual, artistic, and literary expression of humans' relationship to nature. Among the famous thinkers and artists whose works will be studied are Hildegard von Bingen, Alexander von Humboldt, Joseph Beuys, W. G. Sebald.

## Independent Study Courses

## GER 315 Independent Study I

3-0-0
Advanced level projects within the area of German language, literature or civilization.
Prerequisite: Permission of Instructor
GER 316 Independent Study II $\mathbf{3 - 0 - 0}$
Advanced level projects within the area of German language, literature or civilization.
Prerequisite: Permission of Instructor
GER 317 Independent Study III 3-0-0
Advanced level projects within the area of German language, literature or civilization.
Prerequisite: Permission of Instructor
GER 318 Independent Study IV 3-0-0
Advanced level projects within the area of German language, literature or civilization.
Prerequisite: Permission of Instructor

## Hispanic Studies

All courses are taught in Spanish and fall into the areas of language, civilization and culture, linguistics, and literature. The Hispanic Studies Section strongly encourages students with an Honours or Major in Hispanic Studies to spend an immersion semester abroad (Spain, Argentina, Chile, Mexico, etc.) The following programs are offered: Honours in Hispanic Studies ( 60 credits), Major in Hispanic Studies (42 credits), Concentration in Hispanic Studies as part of the Major in Modern Languages or adjunct to another major (30 credits), Minor in Hispanic Studies ( 24 credits), and Certificate in Hispanic Studies (30 credits).

## Please note:

- For all programs, standard course requirements are indicated for beginning students. Students who have already attained a degree of competence in Spanish will be required to replace lower level courses with higher level courses in order to complete program requirements.
- Independent Studies courses are offered only to students with high academic standing and in consultation with the professor.
- In addition to their degree requirements, Majors and Minors in the program are strongly encouraged to take the international DELE exams (Diplomas de Español Lengua Extranjera) supervised by the Ministry of Education of Spain and the Instituto Cervantes. These exams test three levels of mastery of the Spanish language: Certificado Inicial, Diploma Básico, Diploma Superior.


## International Exchange

Students who wish to participate in the International Exchange Program in a Spanish-speaking country and who require proof of Spanish competency to do so must complete SPA 202 and/or SPA 204 or have a DELE (Diploma de Español Lengua Extranjera) certificate at the B2 level. Under no circumstances can the Hispanic Studies Section certify the level of proficiency of students who have not completed these requirements.

## Honours in Hispanic Studies

 (60 credits)HONHSP
The Honours in Hispanic Studies adds 18 credits to a Major in Hispanic Studies for a total of 60 credits:

## Required courses:

SPA 443 Advanced Research Methods: Honours Thesis Proposal (3 credits)
SPA 444 Honours Thesis (3 credits)
SPA 435 Directed readings and Research I (3 credits)
SPA 436 Directed readings and Research II (3 credits)
Students must also take an additional 6 SPA credits at the 300-level in order to fulfill the 60 credit requirement.

To qualify for the Honours program, students must have a cumulative average of at least $80 \%$ in the Hispanic Studies Major program and have permission from the Hispanic Studies section. Admission into SPA 444 Honours Thesis requires an average of at least 75\% in SPA 443 Advanced Research Methods: Honours Thesis Proposal.

## Major in Hispanic Studies (45 credits*)

MAJHSP
Hispanic Studies Majors are required to complete 42 credits in Spanish and MLA 101. *Students with a Major in Hispanic Studies and another full major and students who are pursuing Hispanic Studies Major on a part-time basis are exempt from the MLA 101 requirement.
SPA 101 Spanish Language I
SPA 102 Spanish Language II
SPA 201 Spanish Language III
SPA 202 Spanish Language IV
SPA 203 Language and Cultures in Practice I
SPA 204 Language and Cultures in Practice II
SPA 301 Advanced Spanish: Topics and Texts I
SPA 302 Advanced Spanish: Topics and Texts II

## Any two of the following:

SPA 331 Introduction to Peninsular Literature
SPA 332 Introduction to Spanish American Literature
SPA 342 Seminar in Literature
Plus at least four additional 300 or 400 level SPA courses as part of the 42 SPA credits required

## Major in Modern Languages with concentration in Hispanic Studies (30 credits for concentration) MAJMLA+CONHSP

SPA 101
SPA 102
SPA 201
SPA 202
SPA 203
SPA 204
SPA 301
SPA 302
SPA 331
SPA 332 Introduction to Spanish American Literature Plus at least two additional 300 or 400 level SPA courses as part of the 30 SPA credits required

## Minor Hispanic Studies ( 24 credits)

MINHSP
SPA 101 Spanish Language I
SPA 102 Spanish Language II
SPA 201 Spanish Language III
SPA 202
Spanish Language IV
SPA 203 Language and Cultures in Practice I OR
SPA 204 Language and Cultures in Practice II
SPA 301 Advanced Spanish: Topics and Texts I OR
SPA 302 Advanced Spanish: Topics and Texts II
Plus at least two additional 300 or 400 level SPA courses as part of the 24 SPA credits required

## Certificate in Hispanic Studies (30 credits)

 CONHSPSPA 101 Spanish Language I
SPA 102 Spanish Language II
SPA 201 Spanish Language III
SPA 203 Language and Cultures in Practice I
SPA 202 Spanish Language IV
SPA 204 Language and Cultures in Practice II
SPA 301 Advanced Spanish Language: Topics and Texts I
SPA 302 Advanced Spanish Language: Topics and Texts II
And two additional 300 level SPA courses

## List of Spanish Courses

## Language Courses

SPA 100 Spanish Language I-II: Intensive Course $\quad \mathbf{6 - 6 - 0}$
The course covers the contents of SPA 101 and SPA 102 in one semester. Language audio exercises are included.
No prerequisite
SPA 101 Spanish Language I
3-3-0
The course is designed for students with little or no background in Spanish. Speaking skills are developed with an orientation to real-life tasks and genuine communication. Listening trains the student to recognize words, phrases, and international patterns in spoken Spanish. The course includes language audio exercises.
No prerequisite.
SPA 102 Spanish Language II
3-3-0
The course is a continuation of Spanish Language I. It is proficiency-based and includes an elementary survey of the basic categories of Spanish grammar. The general objective is Spanish communication. Language audio exercises are included.
Prerequisite: SPA 101 or permission from the instructor

## SPA 120 Spanish Language II-III Intensive <br> 3-3-0

This course covers the contents of SPA 102 and SPA 201 in one semester. The course is designed for students who are able to communicate in Spanish but need additional exposure to the basic structures and functions of the language. Students may take SPA 203 concurrently. Upon completion of SPA 120, students will be allowed to take SPA 202 and SPA 204. Language audio exercises are included.
Prerequisite: Permission from the instructor
SPA 200
Spanish Language III-IV
6-6-0
The course will be an intensive review of the Spanish Language. Emphasis is placed on using the acquired language. Oral and written exercises with attention to underlying structures lead to practice with complex structures in speech, reading, listening and writing. The course will be taught in Spanish.
Prerequisite: SPA 100 or SPA 102 or permission from the instructor

The course is designed for students with a basic background in Spanish. The purpose of this course is to give a better understanding of the Spanish language. Emphasis is placed on using the acquired language. Students will be able to more easily communicate their own ideas and will enhance their written and oral communication. Language audio exercises are included.
Prerequisite: SPA 100 or SPA 102 or permission from the instructor
SPA 202 Spanish Language IV $\quad \mathbf{3 - 3 - 0}$
An intensive review of the Spanish language. Oral and written exercises with attention to underlying structures lead to practice with complex structures in speech, reading, and writing. Language audio exercises are included.
Prerequisite: SPA 201 or SPA 120 or permission from the instructor
SPA 203 Language and Cultures in Practice I 3-3-0
This course is designed to complement the Intermediate Spanish Language courses through the study of Hispanic Cultures. Listening and reading comprehension will be improved through regular listening activities based on authentic texts and through the close reading of a novel. Grammar is presented using traditional exercises.
Prerequisite: SPA 100 or SPA 102 or permission from the instructor
SPA 204 Language and Cultures in Practice II 3-3-0
This course is a continuation of Language and Cultures in Practice I. Listening and reading comprehension will be improved through regular listening activities based on authentic texts and through the close reading of a novel. The course involves the review of difficult aspects of Spanish morphology and syntax. Expression will be improved through regular oral and writing activities.
Prerequisite: SPA 201 or SPA 203 or permission from the instructor
SPA 301 Advanced Spanish: Topics and Texts I 3-3-0.
The purpose of this course is to develop linguistic competence using the Hispanic world as a focus for class discussion, grammar review, and introduction to Hispanic social contexts and texts. Course materials may also include films, interviews, selections from the press, as well as literary or historical readings.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor
SPA 302
Advanced Spanish: Topics and Texts II
3-3-0
This course continues to reinforce the practice of oral and written communication in Spanish through topics in contemporary cultural materials from Spain and Spanish American countries. Students will focus on refining pronunciation and developing vocabulary. Course work involves grammar review and practice writing.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor

## Civilization and Culture

SPA 311 Spain: Civilization and Culture 3-3-0
The course examines Spain through its Roman, Arab, Jewish and Christian history, and through its literature, art, language and customs. The objective of the course is an understanding of present-day Spanish culture and society. The use of compact discs, CDrom and video will complement the information from the textbook.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor
SPA 313 Mexico: Civilization and Culture 3-3-0
This course will focus on the different periods in the history of Mexican culture and society. Beginning with pre-Aztec civilization, the course will examine the political, economic and cultural organization that evolved up to the Spanish Conquest of the 16 th century. The Mexican Baroque and succeeding periods will then be examined with particular emphasis on the structure and composition of the indigenous and Spanish populations. Special attention will be paid to this socio-economic context of each period, specifically those characteristics which led ultimately to the Revolution. Finally, the course will focus on the leading intellectuals of the 19th and 20th centuries, including the muralists, and the crucial events that have shaped present-day Mexico.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor
SPA 314 The Central American Region and the Spanish Caribbean: Civilization and Culture

3-3-0
This course offers an overview of major historical movements involving political, social, economic and cultural developments. Emphasis is on the major achievements of Cuba, Puerto Rico, the Dominican Republic, Venezuela, Colombia, and the Central American countries.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor

## SPA 317 The Southern Cone and the Andean Region: Civilization and Culture

3-3-0
This course involves a study of the culture and civilization of the region from a variety of viewpoints: historical, literary, sociological, anthropological, and political. Emphasis is on the major achievements of Argentina, Peru, Uruguay, Paraguay, Ecuador, Bolivia, and Chile.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor

## SPA 318 Spanish Cinema <br> 3-3-2

This course is designed to familiarize students with the Spanish Cinema and will consider the political, sociological and cultural context within which Spanish Cinema has developed. The course will examine works of film-makers who have contributed to the creation of contemporary Spanish Cinema, including, Buñuel, Saura, Pilar Miró, Almodóvar and others, Students will be required to watch films in addition to attending class.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor

## SPA 319 Topics in Hispanic Culture

3-3-0
Cultural issues in the Spanish-speaking world. Topics include film, journalism, religion, language in society, popular and mass culture, visual arts, immigration, mestizaje, and slavery.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor
SPA $320 \quad$ Hispanic Cinemas and Social Engagement
3-3-2
This course explores the representation of social and political engagement in and by Spanish-language cinema, with particular emphasis on films from Latin America. The purpose is twofold: to introduce students to notable films and filmmakers in Spanish, and to approach issues of social and political conflict in the Hispanic world through the filmic lens. The topics covered will be both universal and particular to Hispanic cultures and will include, among others: indigenous peoples, dictatorships, globalization, and women's rights.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor
SPA 336 Spanish Conquest and Colonial Encounters
3-3-0
This course is a survey of major works from the Spanish Conquest and Colonial periods in the Americas (between 1492 and 1825). Students will analyze and interpret primary source material such as chronicles, essays, epistolary exchanges, and poetry contextualized vis-à-vis the medieval and Renaissance values of Imperial Spain. Students will also study secondary criticism and film in order to contextualize the themes presented in the primary texts. Authors may include Cabeza de Vaca, Bartolomé de las Casas, Colón, Cortés, Diaz del Castillo, Lope de Aguirre, El Inca Garcilaso de la Vega, Guaman Poma de Ayala, Sor Juana Inés de la Cruz. The course will be taught in Spanish.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor

## Literature

SPA $330 \quad$ Major Hispanic Authors
3-3-0
This course offers a selection of representative works from the major writers and literary periods in Spain and Spanish America. Authors include Cervantes, Lope de Vega, Calderón, Galdós, García Márquez, Cortázar, Fuentes, Paz, Carpentier, and others. A variety of literary genres will be examined.
Prerequisite: SPA 331 or SPA 332 or permission from the instructor
SPA 331 Introduction to Peninsular Literature 3-3-0
A course designed to cover the development of literature in Spain through selected readings with particular attention to the Twentieth Century. Such authors as Camilo José Cela, Miguel Delibes, Carmen Gaite, Ana Maria Matute will serve to develop reading facility and appreciation of the written language. Specific topics which arise from the readings will initiate discussions, oral expositions and compositions. Prerequisite: SPA 202 or SPA 204 or permission from the instructor

## SPA 332 Introduction to Spanish American Literature <br> 3-3-0

A course which surveys the development of literature in Spanish America with emphasis on modern authors. Included are works by such outstanding writers as Alejo Carpentier, Julio Cortázar, José Donoso, Carlos Fuentes, Gabriel García Márquez, Juan Rulfo. The course provides opportunities to develop reading facility and appreciation of literature through selected texts. Discussions and oral presentations on specific topics arising from the readings will help to develop oral fluency. Writing competence will be reinforced by compositions.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor

SPA 333 Hispanic Literature and Films
3-3-2
This course is a survey of Hispanic cinema on literary masterpieces. Students will examine literary texts, scripts, and their screen adaptations. Writers and directors include Gabriel Garcia Márquez, Manuel Puig, Camilo José Cela, Edmundo Desnoes, Almudena Grandes, Luis Buñuel, Héctor Babenco, Carlos Saura, Pedro Almodóvar, Tomás, Gutiérrez Alea, and others.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor
SPA 335 Death, Dictatorship, and Discovery:
Representations of the Spanish Civil War

3-3-0 The Spanish Civil War (1936-1939) was a defining moment in Spanish, European, and world history, maintaining to the present a close relationship with cultural production. This course explores the representation of the Civil War from the propagandistic works of the conflict itself, to the censorship of the subsequent dictatorship under Francisco Franco, toe the memory-politics of the current democratic era. The primary focus of this course will be narrative fiction, in particular novels and films, though poetry, art, music, architecture, and documentaries will also be discussed.
Prerequisites: SPA 202 or SPA 204 or permission from the instructor
SPA $435 \quad$ Directed readings and Research I $\quad$ 3-3-0
This course will involve tutorial supervision of research on subjects and readings from Peninsular Literature not treated in regular courses.
Prerequisite: SPA 331 and by permission of Hispanic Studies Section.
SPA 436 Directed readings and Research II $\quad \mathbf{3 - 3 - 0}$
This course will involve tutorial supervision of research on subjects and readings from Spanish American Literature not treated in regular courses.
Prerequisite: SPA 332 and by permission of Hispanic Studies Section.

## Linguistics

SPA 321 History of the Spanish Language 3-3-0
This course focuses on the evolution of the Spanish language from its origins to the present. This diachronic analysis will encompass linguistic aspects such as phonology, morphology, syntax, and semantics.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor
SPA 325 Advanced Spanish Grammar
3-3-0
The main objective of this course is an intensive review of the more complex aspects of Spanish grammar for non-native speakers. The curriculum will cover specific areas of grammar: indicative/subjunctive, ser/estar, prepositions
Prerequisite: SPA 202 or SPA 204, or SPA 203 allow concurrent, or permission from the instructor
SPA 329 Introduction to Hispanic Linguistics 3-3-0
This course introduces students to the study of the main areas of Hispanic linguistics (morphology, syntax, and semantics). General theories on the formation of languages and on language change will be examined. Attention will also be given to the distinct geographical and sociological varieties of contemporary Spanish.
Prerequisite: SPA 202 or SPA 204 or permission from the instructor

## Seminars

SPA 342 Seminar in Literature 3-3-0
Research and individual projects within an area of Peninsular or Spanish American Literature.
Prerequisite: SPA 331 or SPA 332 or permission from the instructor
SPA 443 Advanced Research Methods: Honours Thesis Proposal 3-3-0
This course explores the theory, methodology, and practice behind the creation of a research project in Spanish or Latin American literatures, cultures, or Spanish linguistics. In consultation with a supervising member of the Hispanic Studies faculty, students will prepare a research proposal that outlines the specific topic to be explored, establishes clear objectives and parameters for the study, and provides a preliminary bibliography of key primary and secondary sources. This course constitutes the first step in the completion of the Honours Thesis in Hispanic Studies.
Prerequisites: SPA 331 and SPA 332 or equivalent
SPA 444
Honours Thesis
3-0-0
This course constitutes the second step in the realization of the Honours Thesis as students will complete the research project outlined by their work in SPA 443. Prerequisite: SPA 443

## Independent Studies

SPA 315 Independent Studies I 3-0-0
Individual study projects within an area of Spanish linguistics, literature or civilization.
Prerequisite: SPA 331 or SPA 332
SPA 316 Independent Studies II $\mathbf{3 - 0 - 0}$
Individual study projects within an area of Spanish linguistics, literature or civilization.
Prerequisite: SPA 331 or SPA 332

## Japanese Studies

## Modern Languages Major: Japanese International Concentration (30 credits for concentration)

Students who have been accepted to go on exchange in Japan may apply for a Japanese Studies International Concentration within the Major in Modern Languages.

Courses are chosen prior to the exchange in consultation with the Head of the Japanese Studies section.

With special permission under exceptional circumstances, the international requirement may be waived by earning the total of 30 JSE credits.

## Minor in Japanese Studies (24 credits)

MINJSE
The Minor in Japanese Studies is designed to provide students with an intermediate to advanced level competence in Japanese along with an understanding of various aspects of Japanese society, its civilization, its culture and its institutions.

For a Minor in Japanese Studies students must complete 24 credits.

A typical progression of courses leading to a Minor in Japanese Studies is: Year 1 - JSE 101/150 (Fall) / JSE 102 (Winter); Year 2 - JSE 201 (Fall) / JSE 202 (Winter), or an exchange program to Japan (one semester or two); Year 3 - Courses chosen in consultation with the Japanese studies program coordinator.

## List of Japanese Courses

## Japanese Language Courses

JSE $100 \quad$ Introduction to Japanese Language I-II Intensive Course
This course covers the contents of JSE 101 and JSE 102 in one semester.
JSE 101 Introduction to Japanese Language I 3-3-1
The purpose of the course is to equip students with grammatical patterns and basic vocabulary of present day, standard Japanese. Hiragana, one of the three writing systems of the language, will be gradually introduced, followed by Katakana and Kanji. Grammar sessions will be conducted in English while in drill sessions maximum use of Japanese will be expected. Concurrent registration of JSE 150 strongly recommended for exchange programs.
JSE 102
Introduction to Japanese Language II
3-3-1

JSE 201 Intermediate Japanese Language I

3-3-1
This course introduces students to more grammatical (as well as lexical) items that can be put to immediate use. The purpose of the course is to equip the students with comprehensive grammatical patterns and vocabulary of present-day, standard Japanese at the basic level.
Prerequisite JSE 100 or JSE 102 or equivalent
JSE 202 Intermediate Japanese Language II
3-3-1
Continuation of Intermediate Japanese Language I.
Prerequisite JSE 201 or equivalent
JSE 301 Advanced Japanese Language I
3-3-1
This course completes the over-all syntax of present-day Japanese, providing the students with a solid foundation for further studies in the field of their choice. The course adds more vocabulary as well as Kanji.
Prerequisite JSE 202 or equivalent
JSE 302 Advanced Japanese Language II
3-3-1
Continuation of Advanced Japanese I.
Prerequisite JSE 301 or equivalent
JSE 320 Introduction to Debate in Japanese
3-3-0
This course provides an introduction to formal, academic debate in Japanese. The course covers (1) the theoretical background where you will learn how to define key terms, how to construct arguments, how to refute your opponent's arguments, etc., (2) how to prepare for debates and (3) practice debating in Japanese (cross examination style).
Prerequisite JSE 202 or Instructor's Permission
JSE 330 Introduction to Japanese Linguistics $\quad \mathbf{3 - 3 - 0}$
This course introduces the basic aspects of Japanese linguistics in the areas of phonetics/phonology, morphology, syntax, semantics, and language variation.
Prerequisite JSE 202 or permission of instructor

## Courses on Japan

JSE 150 Japanese Society and Culture
3-3-0
This course is designed to give a basic level of knowledge on the main aspects of modern Japanese society and culture. The aim is twofold: first, to present modern Japan as it might be seen by the Japanese themselves, in hope that the student might learn to perceive Japanese society and culture from a Japanese point of view, and; second, to introduce some of the minute details - the intricacies - of everyday life in Japan which the student might not be aware of, yet which will help him or her to better understand and experience the ways of Japan. Concurrent registration of JSE 101 strongly recommended for exchange programs.
JSE 310 Independent Study:
Topics in Japanese Language and Culture I
3-3-0
Students will undertake projects related to some aspect of Japanese language, literature, society, and/or culture.
Prerequisite JSE 202 or instructor's permission
JSE 311 Independent Studies:
Topics in Japanese Language and Culture II
3-3-0
Students will undertake projects related to some aspect of Japanese language, literature, society and/or culture.
Prerequisite: JSE 202 or Instructor's Permission
JSE 401 Internship in Yamaguchi I $\quad$ 3-3-0
This is a one-year-long internship program that provides rare, hands-on experience of Japan, within the framework of the Japanese Studies Program. Students will work as assistants at a nursery school of the Town of Abucho, Yamaguchi, Japan with many generous benefits.
Prerequisite: JSE 101 and JSE 102 as well as an approval of the section chief of the Japanese Studies Program
JSE 402 Internship in Yamaguchi II $\quad \mathbf{3 - 3 - 0}$
This is a one-year-long internship program that provides rare, hands-on experience of Japan, within the framework of the Japanese Studies Program. Students will work as assistants at a nursery school of the Town of Abucho, Yamaguchi, Japan with many generous benefits.
Prerequisite: JSE 101 and JSE 102 as well as an approval of the section chief of the Japanese Studies Program

Prerequisite JSE 101 or equivalent

JSE 411
Internship in Nagasaki I
3-3-0
This is a one-year-long internship program where participating JSE students have the opportunity to improve their communication skills in Japanese while working as interns in a hotel in Japan. The work is primarily in the area of hospitality and customer services. This internship provides a rare opportunity to experience Japanese language and culture from the inside.
Prerequisites: JSE 202 or equivalent, and JSE 150
JSE 412 Internship in Nagasaki II $\quad \mathbf{3 - 3 - 0}$ This is a one-year-long internship program where participating JSE students have the opportunity to improve their communication skills in Japanese while working as interns in a hotel in Japan. The work is primarily in the area of hospitality and customer services. This internship provides a rare opportunity to experience Japanese language and culture from the inside.
Prerequisites: JSE 202 or equivalent, and JSE 150

## Music

## Faculty

## Ross Osmun

A.R.C.T. (Royal Cons.); B.Sc., B.Mus., B.Ed., (Windsor); M.Mus., D.M.A.
(Eastman); Professor
Chair of the Department
Mathieu Désy
B.Mus., M.Mus., CSPM. (Cons. De musique et d'art dramatique Montréal); D.Mus. (U. de Montréal); Assistant Professor

## Program Overview

The Department of Music offers a wide range of courses that provide a general introduction to the subject or that lead to a B.A. degree with either an Honours, Major or Minor in Music. Students also have the option to choose between the disciplines of Classical or Popular Music Studies (Jazz and Popular Music). A popular interdisciplinary program is the B.A. in Arts Administration (Music Concentration). A new Concentration in Music Theatre draws the worlds of Drama and Music together in an exciting collaborative enterprise. The Department also welcomes students from across campus to select from a wide range of courses geared to those with little or no background in music.

Courses leading to the B.A. in Music, in either the Classical or Popular Music stream, are drawn from four areas of study: history and literature; theory and composition; lessons on both classical and jazz instruments or voice; and choral or instrumental ensembles. Courses in the history and literature of music include historical surveys, genre studies, and special interest courses on many topics. Theory courses are combined with musicianship classes (ear-training, sight-singing and keyboard harmony). Advanced courses in composition, harmony, form and analysis, counterpoint and orchestration are also available. Performance study is available on all orchestral, band and keyboard instruments, as well as voice. Instruction is provided by professional musicians who live and work in the region. Ensembles include the University Singers, Chamber Music Ensembles, Jazz Combos and Rock/Pop Bands. Numerous performing opportunities both on and off campus are available as early as the first semester of study for students keen on building their confidence on stage.

The Department proudly boasts the acoustically superb, 165-
seat Bandeen Recital Hall. Other facilities include studios for teaching and ensemble rehearsal, classrooms, a small recording studio and a number of practice rooms all equipped with Yamaha upright pianos. The Department also owns a Karl Wilhelm continuo organ, a 2-manual French Baroque harpsichord made by Montreal craftsman Yves Beaupré, two 7-foot Hamburg Steinway pianos and a 7 -foot American Steinway piano. Students also have access to a 2-manual Wilhelm tracker organ in St. Mark's Chapel. As a general rule, students should possess their own instruments (with the exception of piano, double bass, harpsichord and organ).

In addition to its academic role, the Department of Music is the center of cultural activities for the University community and beyond. The Department offers a full series of concerts by Canadian and international musicians in Bandeen Hall, and co-sponsors a series of organ recitals in St. Mark's Chapel. Artists-in-Residence visit the Department each year to present concerts and master classes for Bishop's music students. A fully-staged musical is normally mounted each Spring semester, in collaboration with the Drama department.

## Admission

Students seeking admission must satisfy the general requirements for admission to the university. In addition, the Music Department requests that each applicant submit a letter detailing their previous musical studies and experience. An audition, either live or in video format, is required. Please contact the Admissions Office or the Department Chair for details.

## Programs

## Honours in Music ( 60 credits) HONMUS

In addition to the requirements listed below for the Music Major, the following courses are required for students pursuing the Honours Program, whether in the Classical or Popular Music Studies stream.

## Special Project Option:

Electives related to topic 6 credits
MUS 455 6 credits

## Performance Option:

| Elective related to topic 3 credits MUS 372 \& MUS 373$\qquad$$\qquad$ 4 credits |
| :---: |
|  |  |
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Students intending to choose the Honours program should declare their intent in writing by the fourth full-time semester. An Honours thesis or recital proposal must be approved by the Department. An average of at least $70 \%$, calculated on the marks obtained in all courses attempted in both the first and second 30 -credit program years, is required. In performance, a grade of at least $80 \%$ is required in MUS 373 to continue in Honours Performance.
Major in Music - Classical(48 credits)
MAJMUS
Two Music Literature Courses 6 credits
MUS 150, MUS 251. ..... 6 credits
Two other Music History Courses ..... 6 credits
MUS 120, MUS 125 \& MUS 220 6 credits
MUS 130, MUS 135 \& MUS 230 ..... 9 credits
Any one from MUS 332, MUS 333, MUS 335, MUS 337 . ..... 3 credits
Four Ensemble Courses ..... 4 credits
MUS 172, MUS 173, MUS 272 \& MUS 273 ..... 8 credits
Year 1 Recommended Music Courses (19 credits) MUS 150 ..... 3 credits
MUS 120 \& MUS 125 ..... 4 credits
MUS 130 \& MUS 135 ..... 6 credits
Any two Ensemble Courses (taken from MUS 180 - MUS 189) 2 credits
MUS 172 \& MUS 173 ..... 4 credits
Year 2 Recommended Music Courses ( 20 credits)Two Music History Courses (taken from MUS 251,
MUS 244, MUS 245, MUS 246, MUS 247)...... 6 credits
MUS 220 ..... 2 credits
MUS 230 ..... 3 credits
One Music Theory Course (taken form MUS 332, MUS 333, MUS 335 or MUS 337) ..... 3 credits
Any two Ensemble Courses (taken from MUS 280 - MUS 289) ..... 2 credits
MUS 272 \& MUS 273 ..... 4 credits

These remaining required music credits may be taken at any time during the student's stay at Bishop's. Majors and Minors may take more than the required number of music credits.

## Major in Popular Music Studies Jazz, Pop/Rock (48 credits) <br> MAJMUP

In addition to our Classical Music Program, the Music Department at Bishop's University offers an option to those interested in pursuing a career in popular music.

This program contains certain core courses. It is designed to cover both the practical and academic aspects of the contemporary music streams in popular culture.

MUS 150
3 credits
Any three from MUS 101/MUS 102, MUS 103/MUS 104, MTH 151/MTH 152, MUS 115/MUS 116, MUS 203/MUS 204

9 credits
MUS 120, MUS 125 ............................................ 4 credits
MUS 220 or MUS 123 ......................................... 2 credits
MUS 130, MUS 135 \& MUS 230......................... 9 credits
MUS 234 ............................................................ 3 credits
Any two of MUS 291, 323, 376, 392 or other 300-level
Theory Courses ................................................... 6 credits
Four Ensemble Courses....................................... 4 credits
MUS 172, MUS 173, MUS 272 \& MUS 273 ......... 8 credits

## Year 1 Recommended Music Courses (19 credits) MUS 150 3 credits

MUS 130 and MUS 135 ..... 6 credits
Any two Ensemble Courses
(taken from MUS 180 - MUS 189) ..... 2 credits
MUS 172 \& MUS 173 ..... 4 credits
Year 2 Recommended Music Courses ( 20 credits)
Any two literature courses from the list above .... ..... 6 credits
MUS 220 or MUS 123 ..... 2 credits
MUS 230 ..... 3 credits
MUS 234 ..... 3 credits
Any two Ensemble Courses
(taken from MUS 280 - MUS 289) ..... 2 credits
MUS 272 \& MUS 273 ..... 4 credits
These remaining required music credits may be taken at anytime during the student's stay at Bishop's. Majors and Minors maytake more than the required number of music credits.
Minor in Music - Classical
(24 credits)
MINMUS
MUS 140 ..... 3 credits
One Music Literature Course. ..... 3 credits
MUS 120 ..... 2 credits
MUS 130 and MUS 135 ..... 6 credits
Any two Ensemble Courses (taken from MUS 180 - MUS 189) ..... 2 credits
MUS 172 \& MUS 173 ..... 4 credits
Music Electives ..... 4 credits
Minor in Popular Music Studies - Jazz, Pop/Rock (24 credits)MINMUP
Any two from MUS 101/MUS 102, MUS 103/MUS 104, MTH 151/MTH 152, MUS 115/MUS 116 , MUS 203/MUS 204 6 credits
MUS 120 ..... 2 credits
MUS 130 and MUS 135 ..... 6 credits
Any two Ensemble Courses
(taken from MUS 180 - MUS 189) ..... 2 credits
MUS 172 \& MUS 173 ..... 4 credits
Music Electives ..... 4 credits
Arts Administration:
Music Concentration MAJAAMRefer to the Arts Administration, Concentration: Drama, FineArts, Film Studies, Music or Public History - Music (30 credits)MAJAAM section in the Academic Calendar for course require-ments.

## List of Courses

## Theory and Composition

MUS 120 Musicianship I
2-2-0
An introduction to the fundamental skills of musicianship, including ear-training, sight-singing and basic keyboard skills.
Formerly MUS 121. Not available to students who have successfully completed MUS 121.
Co-requisite: MUS 130
MUS 125 Musicianship II 2-2-0
Continuation of MUS 120
Formerly MUS 122. Not available to students who have successfully completed MUS 122.
Prerequisite: MUS 120 or MUS 121.
Co-requisite: MUS 135
MUS 123 Introduction to Jazz Skills
An introduction to skills required for jazz performance, including understanding the modes, basic jazz harmony, and deciphering basic jazz charts.
Prerequisite: MUS 130 or equivalent, or permission of the instructor.

## MUS $130 \quad$ Materials of Music I

An introduction to basic musical literacy, including rhythmic notation, reading in all modern clefs; spelling scales, intervals and triads; and the structure of the tonal system.

## MUS 135 Materials of Music II <br> 3-3-0

Review of the rudiments of music followed by the study of diatonic harmony, melody and voice-leading in the common-practice era.
Prerequisite: MUS 130 or equivalent, or permission of the instructor. Formerly MUS 131. Not open to students who have completed MUS 131.

MUS 220 Musicianship III $\quad \mathbf{2 - 2 - 0}$
Essential musicianship skills extended to chromatic language, including ear training, sight-singing and keyboard harmony.
Continuation of MUS 125. Formerly MUS 221. Not open to students who have completed MUS 221.
Prerequisite: MUS 125 or MUS 122.
Co-requisite: MUS 230.
MUS $230 \quad$ Materials of Music III
3-3-0
Continuation of MUS 135.
Formerly MUS 132. Not available to students who have successfully completed MUS 132.
MUS 234 The Jazz/Pop Musician's Toolbox 3-3-0
This course offers a hands-on skills workshop for jazz musicians that will convert theoretical knowledge into practical performing skills. Understanding and hearing musical forms, converting scales, modes, chords and arpeggios into solos, transcribing pieces, understanding jazz etiquette and jargon will all be addressed in detail. Required for all students in the Popular Music program.
Prerequisite: MUS 135 or permission of instructor.
MUS 238 Composition I 3-3-0
This course will focus on various approaches to writing music through the investigation of different pitch language systems. Contemporary uses of rhythm, form, texture, colour and dynamics will also be studied with the goal of creating an original work.
Prerequisite: MUS 135 or permission of instructor.
MUS 291 Song and Instrumental Writing 3-3-0
This course provides the student with a history of the development of popular song styles from the early 20th century onward. There will be a study of the various stylistic approaches by different composers of this era as well as an introduction to the composition of songs in each style.
Prerequisite: MUS 135 or permission of instructor.
MUS 293 The Music Profession
3-3-0
This course will introduce students to the practical side of the music business. Topics covered will include résumé building, recording a demo CD, gigging, grant applications and effective marketing techniques.
MUS 312 Independent Study I: Theory
3-1-0
MUS 313 Independent Study II: Theory

MUS 323 Materials of Popular Music
3-3-0
This course will focus on the development of theoretical knowledge as well as practical analytical and writing skills necessary for a deeper understanding of both the Jazz and Blues styles. Repertoire for study will include jazz standards as well as blues forms. The art of improvisation in each of these styles will also be introduced
Prerequisite: MUS 135 or 231.
MUS 332 Advanced Harmony
3-3-0
This course stresses both the writing and analysis of advanced chromaticism in the common-practice era and the twentieth century. Music of Schubert, Brahms, and beyond.
Prerequisite: MUS 230.
This course is not available to students who have previously completed MUS 232.
MUS 333 Compositional Strategies in Formal Design 3-3-0
Principles of formal analysis. Small to large level form is examined with respect to properties of harmony, melody, voice-leading, rhythm, texture and timbre.
Prerequisite: MUS 230.
MUS 335 Compositional Strategies in Counterpoint $\quad$ 3-3-0
An introduction to the writing of counterpoint. Fuxian species, Baroque dance forms, invertible counterpoint, motivic development, and the 2- and 3-part invention.
Prerequisite: MUS 230.
MUS 337 Orchestration
3-3-0
An introduction to the art of orchestration which includes study of all the major orchestral instruments and how to effectively combine them.
Prerequisite: MUS 230.
MUS 338 Composition II
3-3-0
A study of advanced compositional techniques and forms. Students will compose for a variety of chamber music media in short exercises with the goal of creating an extended work as a major project.
Prerequisite: MUS 238.
MUS 392 Arranging and Scoring for Jazz and Pop Music 3-3-0
This course will provide students with the skills that will enable them to arrange pop and jazz tunes for a variety of instrumental/vocal ensembles.
This course is not available to students who have previously completed MUS 292.
MUS 438 Composition III
A continuation of MUS 338.
Prerequisite: MUS 338.

## Music Literature

MUS $100 \quad$ Making and Interpreting Music: A Foundation 3-3-0 This course is designed to introduce students to the study of Music. Some classes will examine music from other perspectives - Physics, Psychology, Philosophy, Religion, Politics, History, etc. - but a key part of the course experience will be performing music in class. We will earn how musical notation works and listen to a variety of musical genres, essential steps to understand how music works. Come prepared to sing and/or play an instrument - every day! No previous study required.
MUS 101
Rock 101
3-3-0
This course offers a survey of rock music from its origins and covers the most important songs of the fifties and sixties. Influences from blues, pop and other genres will be investigated to gain a deeper understanding of how this phenomenal movement changed the music world forever.

MUS 102 Rock/Pop Music 1975 to Present
3-3-0
The course will be of great interest to a wide body of students, since it will include the music they listen to at present. An effort will be made to explain how pop music is related to popular culture in a wider sense, and to contemporary society.
MUS 103 Classic Jazz 3-3-0
This course offers a chronological study of the different eras that have marked the evolution of Jazz in America up to 1945. Analysis of form, melody, harmony, rhythm and improvisation techniques of the major works of the masters will be covered.

MUS 104 Modern Jazz
3-3-0
This course offers a study of the different genres that have marked the evolution of Jazz in America since 1945. Analysis of form, melody, harmony, rhythm and improvisation techniques of the major works of the masters will be covered.

MUS 106 Song
3-3-0
The singer's repertoire is surveyed and analyzed. Special attention is given to German and French song literature of the nineteenth century as well as art song in England and France. Among the composers considered will be Schubert, Schumann, Brahms, Fauré, Duparc, Debussy, Britten and Ives.

## MUS 107 Opera <br> 3-3-0

Is it music or is it drama? The balance changes through the ages, but opera is always lyrical, emotional, sensational. This course will trace the evolution of opera from the earliest experiments in 1600 through the elaborate productions of the High Baroque; the birth of modern opera with Gluck and Mozart; the Golden Age of Italian bel canto from Rossini and Bellini through Verdi and Puccini; German opera from Beethoven to Wagner; and the new aesthetics of the 20th century, with Strauss, Berg and Britten.
MUS 112 Music for Orchestra
3-3-0
Follow the history of music written for orchestra: concerto, symphony, symphonic poem and related genres. The concerto repertoire begins in 17th-century Italy with Corelli, evolves with Vivaldi and Bach, then passes through the matchless works by Mozart and into the great virtuosic creations of the 19th century. On the symphonic side, we move from Haydn and Beethoven to the great melodists and orchestrators of the Romantic era: Berlioz, Schumann, Brahms, Liszt, Strauss and Mahler. 20th-century creations by Bartok, Stravinsky and others will round out this survey.

## MUS 114 Recital Music

3-3-0
This course will survey recital repertoire from the 17 th to the 21 st centuries. Included will be solo repertoire for harpsichord and piano, and chamber music such as the trio sonata, string quartet and related genres. Emphasis will be placed on the most important contributors to the repertoire: J.S. Bach, Mozart, Beethoven, Schubert, Chopin and Brahms, as well as on works of the 20th \& 21st centuries. An effort will be made to coordinate course content with recitals given in the Music Department.

MUS $115 \quad$ Film Music I
3-3-0
This course will survey the history of film music and its major composers beginning in the late 1920's and ending in the mid 1970's. Examples from many different genres - drama, Western, comedy, horror and animation will offer a wellrounded introduction to this fascinating art form.
MUS 116 Film Music II
3-3-0
This course will survey the history of film music and its major composers beginning in the late 1970's and ending with the most recent releases. Examples from many different genres - drama, Western, comedy, horror and animated will offer a well-rounded introduction to this fascinating art form.
MUS 140 The ABCs of Classical Music $\quad \mathbf{3 - 3 - 0}$
This course is designed to introduce students to the world of Classical Music. The 3 B's, The ' 5 ', Les Six and other composers will be covered as well as the jargon necessary to navigate through any conversation about classical music as well as understand the hieroglyphics of any printed program seen in the concert hall.
Formerly MUS 110/111. Not open to students who have completed MUS 110 and/ or 111). Cannot be counted towards the Music Major.
MTH $151 \quad$ History of Music Theatre to 1975
3-3-0
This course will cover the field of popular musical theatre from its origins in $19^{\text {th }}$ century comic opera and operetta to Broadway musicals. Composers include Kern, Rogers and Hart/Hammerstein and Loewe and the more sophisticated works of Bernstein.
Formerly MUS 109. Not open to students who have completed MUS 109
MTH 152 History of Music Theatre 1975 - Present
3-3-0
Musical Theatre starting in 1975 - the new "Golden Age" with sophisticated Sondheim; the blockbuster shows of Andrew Lloyd Weber, Shonberg/Boublil and Disney; "Poperettas"; Juke-box Musicals; and subjects as diverse as Wicked, Book of Mormon and Hamilton.
MUS 200 Major Composers I
3-3-0
An intensive analysis of the works, style and significance of one or more major composers of Western art music.

## MUS 203 The Blues

3-3-0
This course traces the development of the blues genre from its beginnings in the Mississippi Delta to its modern-day manifestations. Perhaps the most influential popular music genre of the $20^{\text {th }}$ century, blues underlines the foundations of jazz, swing, rock 'n' roll, rhythm \& blues, hard rock and many pop forms. Study will be made of blues classics by Son House, Charlie Patton, Robert Johnson, Blind Lemon Jefferson, Bessie Smith, T-Bone Walker, Stevie Ray Vaughan, Eric Clapton and others.

MUS 204 The Be-Bop Revolution
3-3-0
This course takes an in-depth look at the major figures of the Be-Bop era including Charlie Parker, Dizzy Gillespie, Thelonious Monk and Miles Davis, Biographical profiles, song analysis, and historical/social relevance will also be studied in detail. This course will contain both a research and writing component.
Pre-requisite MUS 104 or permission of Instructor.

## Music History

MUS 150 Introduction to Music $\quad$ 3-3-0
This team-taught course for music students in both the classical and popular disciplines will develop skills such as how to effectively "train" your ear, listen, research, write, practice, rehearse and perform music in various genres and styles. An overview of the major historical trends in Classical and Popular Music will also be covered.
MUS 244 Music of the Early Twentieth Century
3-3-0
The development of music from the turn of the century to the Second World War. The bewildering variety of musical styles in this era will be examined: impressionism, expressionism, neo-classical and neo-romantic, nationalist and radical; Debussy and Ravel, Schönberg and his followers, Stravinsky, Bartok, Hindemith, Prokofiev and Shostakovich, Ives and Varèse.
MUS 245 Music Since 1945
3-3-0
A survey of the principal developments in Western art music since the Second World War. Included in this study are electronic music, computer music, aleatory, total serialism, minimalism and post-modernism.
MUS 246

## Classical Music

3-3-0
This course will cover the period from 1740 up to the death of Beethoven. An investigation of the roots of Classical style will be followed by a study of the three greatest composers of the era-Haydn, Mozart and Beethoven-and their contemporaries. Particular stress will be placed on interpreting the new musical language, including classical harmony and formal structures, including sonata, rondo, and minuet; keyboard style of the piano; the new orchestra and string quartet; modern opera.
MUS 247 Romantic Music 3-3-0
We will analyze the new musical language of the 19th century: including chromatic harmony, cyclic construction, virtuoso performance, program music, and nationalist idioms. The music to be studied includes Schubert, Chopin, Schumann, Liszt, Brahms, Wagner, Verdi, Mahler, etc.

3-3-0
A survey of the major trends in the evolution of music from the Middle Ages through the Renaissance and Baroque periods.
Prerequisite MUS 150.
PSY $292 \quad$ Psychology of Music 3-3-0
MUS 310 Independent Study I: Music History 3-1-0
MUS 311 Independent Study II: Music History 3-1-0
MUS 445F Thesis: Music History 6-1-0
An individual topic to be chosen by the Honours student in consultation with the Department.
MUS 455F Thesis: Special Project 6-1-0
An individual topic with the possibility of a performance element to be chosen by the Honours student in consultation with the Department.

## Ensemble

Students may register for up to two ensembles for credit in any given semester. Students outside the Music program may also participate in ensembles and are encouraged to join. A successful audition is required or consent of instructor.

See the Music Department chair for audition details.
MUS $180 \quad$ Choral Ensemble I
1-3-0
Large choral group that explores the classical repertoire from the 17th through the 20th century. Normally the Winter semester features a program of popular music. Choral ensemble is required for all incoming music students except those accepted into MUS 182, MUS 184, 186 or 188 . Open to all campus and community members, by audition.
MUS 181 Choral Ensemble II
See description under MUS 180.

MUS 182 Chamber Music Ensemble I $\quad 1$ 1-3-0
Small chamber music groups that perform classical repertoire. Good reading skills are expected. Entry by audition only.
$\begin{array}{ll}\text { MUS 183 Chamber Music Ensemble II } & \mathbf{1 - 3 - 0} \\ \text { See description under MUS 182. }\end{array}$
MUS 184 Jazz/Improvisation Workshop I 1-3-0
Mixed instrumental ensemble exploring the repertoires of popular music and jazz. Entry by audition only.
MUS 185 Jazz/Improvisation Workshop II
See description under MUS 184.

## MUS 186 Chamber Orchestra I

1-3-0
Formed fundamentally to explore the great repertoire for string orchestra, this group may also include winds, brass and percussion. Offered when numbers permit.
MUS 187 Chamber Orchestra II
See description under MUS 186.
MUS 188 Rock/Pop Band I
1-3-0
These courses provide experience rehearsing and performing in a rock/pop band. Repertoire will be chosen from the rock and pop repertoire. Entry by audition only.
MUS 189 Rock/Pop Band II
See description under MUS 188.
MUS $280 \quad$ Choral Ensemble III
1-3-0
See description under MUS 180.
MUS 281 Choral Ensemble IV
1-3-0
See description under MUS 180.
MUS 282 Chamber Music Ensemble III
See description under MUS 182.
MUS $283 \quad$ Chamber Music Ensemble IV
1-3-0
See description under MUS 182.
MUS 284 Jazz/Improvisation Workshop III
See description under MUS 184.
MUS 285 Jazz/Improvisation Workshop IV
See description under MUS 184.
MUS 286 Chamber Orchestra III
See description under MUS 186.
MUS 287 Chamber Orchestra IV
See description under MUS 186.
MUS 288 Rock/Pop Band III
1-3-0

See description under MUS 188.
MUS 289 Rock/Pop Band IV
See description under MUS 188.
MUS $380 \quad$ Choral Ensemble V
See description under MUS 180.
MUS 381 Choral Ensemble VI
See description under MUS 180.
MUS 382 Chamber Music Ensemble V
See description under MUS 182.
MUS 383 Chamber Music Ensemble VI
See description under MUS 182.
MUS 384 Jazz/Improvisation Workshop V
See description under MUS 184.
MUS 385 Jazz/Improvisation Workshop VI
See description under MUS 184.
MUS 386 Chamber Orchestra V
1-3-0

See description under MUS 186.
MUS 387 Chamber Orchestra VI $\quad \mathbf{1 - 3 - 0}$
See description under MUS 186.
MUS 388 Rock/Pop Band V
See description under MUS 188.
MUS 389 Rock/Pop Band VI
See description under MUS 188.

## Practical Study

Individual practical study, which consists of private lessons on an instrument or in voice, is divided into two categories: courses required for completion of an Honours, Major, or Minor in Music, and courses taken as an elective, either by music students, or students outside the program. Normally required lessons are 60 minutes in length, while those taken as an elective are 45 minutes in length.
*For all practical study courses, there is a fee surcharge levied each term. Please see fee schedule "Music Practicum" under "Other Fees".

## 1. Required Performance Courses:

These courses are open to Music Minors, Majors, and Honours students. An audition is required. There is no end-of-term jury for MUS 172, however all other required principle instrument performance courses include a jury exam.
MUS $172 \quad$ Principal Instrument $I \quad \mathbf{2 - 1 - 5}$
Performance instruction on any classical or jazz instrument or voice. Attendance at studio recitals and Music Department concerts is a required element of this course. Co-requisite with MUS 180, MUS 182, MUS 184, MUS 186, or MUS 188.
MUS $173 \quad$ Principal Instrument II $\quad \mathbf{2 - 1 - 5}$
Description as for MUS 172 above. End-of-term jury exam is required.
Co-requisite with MUS 181, MUS 183, MUS 185, MUS 187, or MUS 189.
Prerequisite: MUS 172.
MUS $272 \quad$ Principal Instrument III $\quad \mathbf{2 - 1 - 5}$
Performing in studio recitals, attendance at Music Department concerts and end-of-term jury exam are required.
Co-requisite with MUS 280, MUS 282, MUS 284, MUS 286, or MUS 288.
MUS $273 \quad$ Principal Instrument IV $\quad \mathbf{2 - 1 - 5}$
1-3-0 Description as for MUS 272 above.
Co-requisite with MUS 281, MUS 283, MUS 285, MUS 287, or MUS 289.
MUS $372 \quad$ Principal Instrument $V \quad \mathbf{2 - 1 - 5}$
Description as for MUS 272 above.
Intended for Music students enrolled in Performance Honours.
MUS $373 \quad$ Principal Instrument VI
2-1-5
Description as for MUS 272 above.
Intended for Music students enrolled in Performance Honours.
Prerequisite: MUS 372.
MUS 475F Recital
6-1-14
Description as for MUS 172 above.
Students in Honours Performance must present a full recital at the end of the academic year. A written work on a topic chosen by the student in consultation with the Department must also be presented.
Open only to Music Students enrolled in Performance Honours, who have completed MUS 373 (or MUS 273) with a grade of at least $80 \%$

## 2. Elective Performance Courses:

1-3-0 These courses are open to all music students, and to students outside of the Music program after an initial audition. End-ofterm juries are required for all " 71 " courses.
*Non-music students must consult with the Music Department before they enrol in MUS 170.
MUS $170 \quad$ Elective Instrument I $\mathbf{1 - 3 / 4 - 5}$
Performance instruction for either a principal or second instrument, which is not a program requirement. No jury exam is required.
MUS 171 Elective Instrument II 2-3/4-5
A continuation of MUS 170. End-of-term jury exam is required.
MUS 270 Elective Instrument III
1-3/4-5
See description under MUS 170.
MUS 271 Elective Instrument IV
2-3/4-5
A continuation of MUS 270. Jury exam is required.
MUS $370 \quad$ Elective Instrument V
1-3/4-5
See description under MUS 170.

MUS 371 Elective Instrument VI
A continuation of MUS 370. Jury exam is required.
MUS 265 Musical Theatre
6-12-6
In collaboration with the Drama department, a full musical play is mounted, normally in the Spring semester. Open, by audition only, to actors, singers, musicians and technical staff, as required for each show.
Co-listed as DRA 265.
MUS 374 Individual Practical Study: Special Project 3-2-5
A special project involving a performance aspect, on a topic approved by the Department.
MUS 375 Instrument Techniques $\quad \mathbf{2 - 1 - 5}$
Introduction to performing, teaching, and maintenance techniques of orchestral instruments: strings, woodwinds, brass, percussion. Recommended for Double Majors in Music and Secondary Education (instrumental), and open to others with permission of the Department.
MUS 376 Improvisation 3-3-6
This course will develop the skills necessary for jazz/pop music improvisation. It is designed for students nearing graduation.
This course is not available to students who have previously completed MUS 290.

## MUS 378 Introduction in Recording Technology 3-2-6

This course is designed to introduce the student to basic sound recording, using modern digital equipment. Instruction will be offered one-on-one. The course is project-based, and will be individually tailored to the student's knowledge and background. Enrolment limited to Music students, or others with the permission of the Department and instructor.
MUS 379 Recording Technology II
3-2-6
A continuation of MUS 378 which will introduce the student to more sophisticated techniques in the field.
Prerequisite: MUS 378.

## Concentration in Musical Theatre (30 credits)

The departments of Music and Drama at Bishop's University are pleased to offer a new 30-credit concentration in Music Theatre as a supplement to the Major in Music or Drama. This is a program unique among Quebec universities. Students entering the Music program will be required to complete an additional 12 credits or cognates in Drama and vice versa. The successful student with a Drama or Music Major plus the Concentration in Music Theatre will earn a total of:

30 credits (Concentration) $+\mathbf{4 8}$ credits (Major) $+\mathbf{1 2}$ credits (corequisites/cognates) $=\mathbf{9 0}$ credits.
CoursesMTH 100 - Intro. To Dance \& Movement I........... 3 credits
Plus 2 of:
MTH 200 - Dance II: Ballet ..... 3 credits
MTH 201 - Dance III: Tap. ..... 3 credits
MTH 202 - Dance IV: Contemporary ..... 3 credits
MTH 203 - Dance V: Jazz ..... 3 credits
Other required courses:MTH 110 - Intro. to Acting with Song I
$\qquad$ 3 creditsMTH 210 - Acting with Song II: Operetta
$\qquad$ 3 credits
MTH 211 - Acting with Song III: The Golden Age .. 3 ..... 3 credits
MTH 212 - Acting with Song IV: Modern

$\qquad$
3 credits
MTH 151 - Hist. of Musical Theatre to 1975.

$\qquad$
3 credits
MTH 152 - Hist. of Musical Theatre 1975-Present ... 3 ..... 3 credits
MTH 300 - Musical Production I ..... 3 credits
OR
MTH 301 - Musical Production II ..... 3 credits
Total: 30 credits
Additioanl Elective Courses in Musical TheatreMTH 400 - Independent Study I
$\qquad$3 credits
MTH 401 - Independent Study II ..... 3 credits
MTH 410 - Song Writing for Musical Theatre ..... 3 credits

## List of Courses

MTH 100 Intro. to Dance \& Movement I 3-3-0
Students learn fundamental techniques commonly applied to all genres of dance including isolation exercises, posture and alignment study as well as dynamics, rhythm and interpretation.

## MTH 200 Dance II: Ballet <br> 3-3-0

Students learn basic techniques commonly applied to the genre including barre, floor, and centre work as well as the concepts of rhythm, dynamics, space and balance. Elements of good posture, body alignment, turnout, pointing the toe, etc., are interwoven with the French terminology associated with specific ballet moves. Prerequisite MTH 100 or consent of instructor.
MTH 201
Dance III: Tap
3-3-0
Students are presented with rigorous and repetitive series of isolation exercises series for the ankle and foot that develop the basic steps associated within the genre of tap. Development of a clear sense of rhythm and syncopation also a focus of the course.
Prerequisite MTH 100 or consent of instructor.

## MTH 202 Dance IV: Contemporary

3-3-0
Students focus on rhythm and various types of movement, communication and interpretation, and the effective use of a performing space in both solo, duet and small ensemble settings.
Prerequisite MTH 100 or consent of instructor.
MTH 203 Dance V: Jazz
3-3-0
Students are presented with rigorous exercises to develop the basic moves associated within the 6 genres of jazz - Classic, Street, Afro, Commercial, Latin and Contemporary, Development of a clear sense of rhythm and syncopation also a focus of the course.
Prerequisite MTH 100 or consent of instructor.
MTH 110 Intro. to Acting with Song I
3-3-0
This course explores the intimate relationship between acting and music and will be centered around the analysis, discussion and performance of short scenes taken from the standard repertory.
Prerequisites: MUS 172, MUS 120, MUS 130, DRA 131, and/or consent of instructor(s).

MTH 210
Acting with Song II: Operetta
3-3-0
A continuation of MTH 110, this course explores the intimate relationship between acting and music and will be centered around the analysis, discussion and performance of short scenes taken specifically from the operetta repertoire.
Prerequisite MTH 110.

MTH 211 Acting with Song III: The Golden Age 3-3-0
A continuation of MTH 110, this course explores the intimate relationship between acting and music and will be centered around the analysis, discussion and performance of short scenes taken specifically from the Broadway repertoire. Prerequisite MTH 110.

## TH 212 Acting with Song IV: Modern 3-3-0

A continuation of MTH 110, this course explores the intimate relationship between acting and music and will be centered around the analysis, discussion and performance of short scenes taken specifically from the contemporary repertoire. Prerequisite MTH 110.
MTH $300 \quad$ Musical Production I
3-3-0
This course prepares students to mount a public presentation of a full-scale musical theatre production taken from the standard repertory as well as new and hybrid musicals. Successful audition required.
MTH 301 Musical Production II
3-3-0
This course prepares students to mount a public presentation of a full-scale musical theatre production taken from the standard repertory as well as new and hybrid musicals. Successful audition required.
MTH 400 Independent Study I 3-3-0
This upper-level course allows the advanced student the opportunity to develop projects under faculty supervision specific to their interest and career path.
MTH 401 Independent Study II
3-3-0
This upper-level course allows the advanced student the opportunity to develop projects under faculty supervision specific to their interest and career path.

## MTH 151 History of Music Theatre to 1975

(formerly MUS 109 Music and Theatre)
3-3-0
This course will cover the field of popular musical theatre from its origins in 19thcentury comic opera and operetta; and then Broadway musicals up to ca. 1975. Kern, Rogers and Hart/Hammerstein, Lerner and Loewe; the more sophisticated works of Bernstein. Not open to students who have successfully completed MUS 109.

MTH 152 History of Music Theatre: 1975-present 3-3-0
This course will cover the field of popular musical theatre from its origins in 19thcentury comic opera and operetta; and then Broadway musicals up to ca. 1975. Kern, Rogers and Hart/Hammerstein, Lerner and Loewe; the more sophisticated works of Bernstein. Not open to students who have successfully completed MUS 109.

## MTH 410 Song Writing for Musical Theatre 3-3-0

Students will analyze the standard musical theatre repertory, examining song forms, the incorporation of characters, time, place, mood, spoken dialogue, subtext etc. Students, composers and/or lyricists will collaborate to adapt dramatic scenes into songs for the musical stage. Works-in-progress will be collectively critiqued followed by performances of original works in class.
Prerequisite MUS 120 and MUS 130, or consent of instructor.

## Co-requisites / Cognate Courses:

In an effort to balance the skill sets between Music and Drama, Drama Majors entering the concentration must also complete the following Music courses ( 12 credits):

MUS 172, 173 \& 270 ............................................. 5 credits
MUS 181, 281 ........................................................ 2 credits
MUS I20................................................................. 2 credits
MUS 130 .................................................................. 3 credits
In an effort to balance the skill sets between Music and Drama, Music Majors entering the concentration must also complete the following Drama courses ( 12 credits):
DRA 101
3 credits
DRA 102 or DRA 110
3 credits
DRA 131 \& 132 6 credits

## Philosophy

## Faculty

James Crooks,

B.Mus. (Mt. Allison), M.A., Ph.D.
(Toronto); Professor
Chair of the Department
Don Dombowsky,
B.A. (Concordia), M.A. (New School for

Social Research), Ph.D. (Ottawa)
Associate Professor

## Bruce Gilbert,

B.A. (Toronto), M.A. (McGill), Ph.D.
(Penn.State); Professor

## Program Overview

Human beings are filled with wonder, curiosity and awe about the world we live in and about our own beguiling lives. Philosophy quite literally asks the "big questions" about the meaning of life and death, what human fulfillment is, the parameters of a just society, cosmology, metaphysics and a host of other similar topics. We also explore the nature of reason and good arguments.

Knowledge of the philosophical tradition is essential to a sound and liberal education. It lies at the heart of what Bishop's has understood historically and continues to embrace today as its educational mission.

In recognition of this, the Department of Philosophy offers a program designed to meet the needs of both specialists and those seeking to supplement their work in other disciplines. Honours and Majors follow a curriculum which emphasizes two broad areas: Continental European Philosophy and the Western Philosophical Tradition. Advanced students may also pursue independent studies of special topics in greater depth. These offerings are supplemented by a series of introductory and cross-disciplinary courses designed to provide the background, skills and tools for a thoughtful, critical approach to a wide variety of problems and issues and delivered, for the most part, at a level accessible to the non-specialist.

## Programs

## Honours in Philosophy (60 credits)

Candidates for the Honours program must obtain an average of $70 \%$ on the best 60 credits in Philosophy in order to graduate with the Honours degree. In addition, these students will be required to write an Honours thesis (PHI 400 / PHI 401, 6 credits).

## Major in Philosophy ( 48 credits) MAJPHI

Honours and Majors in Philosophy must have the following courses:
Any 3 of:
LIB 210 Eros, Love and Desire
LIB 211 Empire and Its Enemies
LIB 212 In Search of Justice
LIB 213 The Use and Abuse of Beauty
LIB 214 Ecological Crisis and the Struggle
for Environmental Justice
LIB 215 Ecstasy and Excess
LIB 216 The Divine and Ultimate Concern
LIB 217 Space, Place \& The Human Experience
LIB 218 The History and Philosophy of Science
(Lib courses beyond the three required courses for a Major and in
all cases for a philosophy Minor count only if they are taught by a
member of the Department of Philosophy)

Any 3 of:
PHI 100 On the Way to the Good Life
PHI 101 On Thinking and Thinking Well
PHI 102 The Metaphysical Mysteries of Reality
PHI 103 But How Do You Know?
PHI 104 The Hopes and Conflicts of Social and Political Life

## All 4 of:

PHI 271 Socrates and Plato
PHI 272 Aristotle
PHI 260 Kant
PHI 204 Analytic Philosophy
Liberal Arts Honours and Majors with a Concentration in Philosophy must have the following courses:

## Any 3 of: <br> PHI 100 On the Way to the Good Life <br> PHI 101 On Thinking and Thinking Well <br> PHI 102 The Metaphysical Mysteries of Reality <br> PHI 103 But How Do You Know? <br> ```All 4 of: \\ PHI 271 Socrates and Plato \\ PHI 272 Aristotle \\ PHI 260 Kant \\ PHI 204 Analytic Philosophy```

PHI 104 The Hopes and Conflicts of Social and Political Life

## Any 2 of:

PHI 263 Hegel
PHI 265 Nietzsche
PHI 267 Heidegger
PHI 324 The Philosophy and Politics of Karl Marx
PHI 362 Topics in Existentialism and Phenomenology
PHI 364 Topics in Postmodern Philosophy
PHI 366 Topics in Critical Theory
The remaining 9 credits may be either Philosophy courses or Philosophy cognates (excluding Liberal Arts Philosophy cognates).

Minor in Philosophy ( $\mathbf{2 4}$ credits) MINPHI
A minor consists of any 24 credits in philosophy.

## List of Courses

## General Introduction

## PHI 100 On the Way to the Good Life 3-3-0

Every one of us strives to live the best possible life--to achieve real happiness and fulfillment. We taste deep joy and even ecstasy, and yet we face beguiling worries. Are we tragic beings that always undermine our own projects? Is there real evil in humanity such that our happiness is an illusion? It is possible to be truly fulfilled? To really flourish? In this course students not only engage with key texts from our tradition that tackle these issues, but are also encouraged to explore and develop their own pathways to the "good life".
PHI 101 On Thinking and Thinking Well 3-3-0
Thinking well is absolutely necessary to your freedom, for if we think poorly we are vulnerable to the manipulation and ideological coercion of others. Indeed, thinking permeates our lives, and poor thinking can undermine or even sabotage our most important and valued projects and activities. Whether we try to discern rhetoric from argument in political debate, solve a conflict in our personal lives or prove a scientific hypothesis, we must become good at the art of both discovering and giving good reasons for what we hold to be true. In this course we carefully study the art of good reasoning and argument in a manner directly oriented to strengthening each student's capacity to thrive as a student in the university, as a citizen of his or her community and in his or her personal life.
PHI 102 The Metaphysical Mysteries of Reality 3-3-0 Is reality fundamentally "one", such that humanity and nature are unified and interdependent, sharing a common purpose that we are only just starting to grasp? Or are we fragmented individuals adrift in a chaotic or even absurd and surreal universe in which, if there is to be meaning at all, it must be simply created by our will? Is some other notion of reality yet more convincing? In this course we will explore the great metaphysical mysteries of being and reality.
PHI 103 But How Do You Know? 3-3-0
From personal questions like "How do I know I am in love?" to scientific problems like "How do we know the universe began with a 'Big Bang'?", the problem of how do we know saturates our experience. Surely "seeing is believing", and yet so much intellectual and artistic experience requires that we posit ideas and images that are impossible to perceive with our senses. Moreover, is there still a way in which we can say there is Truth, or is truth really just disguised power? In this course we will explore great puzzles of knowing that animate problems from the Scientific Method to claims about religious knowledge.
PHI 104 The Hopes and Conflicts of Social and Political Life 3-3-0 We live in a time of great social and political turmoil. On the one hand, there is widespread consensus that democracy is the only form of governance adequate to the dignity of human freedom. Yet on the other hand, we are plagued by worries that enormous gaps of wealth and power make authentic democratic participation next to impossible. Or we worry that the state or large corporations are robbing citizens of their genuine liberty. Is our society dominated by the " $1 \%$ ", or are current inequalities of wealth and power actually mutual benefit to everyone? This course will focus on concrete social and political conflicts and struggles in our own time, and trace the way that these raise fundamental philosophical and political problems about freedom, rights, gender and sexuality, race and ethnicity, economic justice and other important themes.
PHI 105 Freedom, Anxiety and Authenticity: Existentialist Philosophy

3-3-0
Beneath our freedom is nothing but an abyss, for there is no God or metaphysical foundation for humanity to lean upon. Freedom is thus less a liberty "to do what we want" than an anxiety-laden imperative to either create meaning for ourselves or flee from that responsibility. So said the larger than life existentialist philosophers of the 20th century, Jean-Paul Sartre, Simone de Beauvoir and others. In this course we introduce this dynamic philosophical movement that continues to have enormous influence over our culture by studying not only its main writers but also by exploring the many vital human themes it raises.
PHI 106 Philosophy of Sex and Love
3-3-0
What is gender? What is sexuality, and how is it different from eroticism? Is love just expression of reproductive drives or a higher calling to the Beautiful, the Good and the True? This course explores traditional and contemporary theories of love, desire and sexuality as problems at the heart of the human journey.

## Independent Studies

| PHI 207 | Independent Study I | $3-3-0$ |
| :--- | :--- | :--- |
| PHI 208 | Independent Study II | $3-3-0$ |
| PHI 307 | Independent Study III | $3-3-0$ |
| PHI 308 | Independent Study IV | $3-3-0$ |

## Thesis

PHI400 Honours Thesis I 3-3-0 Each student researches, writes and publically defends a comprehensive thesis proposal under the supervision of one member of the Department. Students must receive a grade of $75 \%$ or higher in this course in order to be permitted to register for PHI 401.
PHI 401 Honours Thesis II
3-3-0
Based on the proposal completed in PHI 400, students draft, revise and defend an honours thesis, as examined by all members of the Department of Philosophy. Prerequisite: PHI 400

## THE HISTORY OF WESTERN PHILOSOPHY

PHI 200 / CLA 273 Ancient Philosophy 3-3-0
Exploration of key themes and problems in ancient Greek philosophy, including the Pre-Socratic and Hellenistic philosophers, but with special emphasis on the thought of Socrates, Plato and Aristotle. Ancient philosophers inaugurated our scientific and philosophical tradition, and this course will thus address vital themes like existence of pure ideas of the Good, the Beautiful and the Just, the nature of a human longing to fulfill or realize our nature, as well as the character of eros, friendship and dialogue (logos).

## PHI 201

Medieval Philosophy
3-3-0
Exploration of the treatment of a range of philosophical issues prior to the Renaissance including: arguments for the existence of God, the relation between reason and revelation, the question of the eternity of the world, and the status of the universals. Text will be drawn from Augustine, Boethius, Eriugena, Anselm, Alfarabi, Avicenna, Averroes, Bonaventure, Siger of Brabant and Aquinas.
PHI 202
Modern Philosophy
3-3-0
Explores key themes, problems and debates in the rationalist and empiricist tradition in the Modern period of European philosophy. This includes especially the thought of rationalist philosophers like Descartes, Leibniz and Spinoza as contrasted with that of the great empiricists - Locke, Berkeley and Hume. This course will address topics such as the relationship of body and mind, of ideas to sensation, of necessity and freedom as well as the nature of human happiness.

## PHI 203

Continental Philosophy
3-3-0
Explores key themes and problems in contemporary continental philosophy. Beginning with the transcendental philosophy of Kant the continental tradition has focused on themes such as freedom, the body, emotion, and our concrete relationships with other people. Students will study authors like Hegel, Marx, Nietzsche, Sartre, Heidegger, de Beauvoir, Merleau-Ponty, and Derrida.
PHI 204 Analytic Philosophy 3-3-0
Introduction to 20th century analytic philosophy drawing on works of Moore, Russell, Wittgenstein, Quine, Ayer, Strawson and Armstrong.

## The Western Philosophical Tradition

PHI 260 Kant 3-3-0
Consideration of epistemological and ethical issues in Kant's first two Critiques.
PHI 271 / CLA $271 \quad$ Socrates \& Plato 3-3-0
A study of the character and teaching of Socrates as portrayed in Plato's early and middle dialogues. Emphasis will be on theory of education.
PHI 272 / CLA 272 Aristotle 3-3-0
A study of selected works of Aristotle with special emphasis on logic, metaphysics, and the concept of substance.
PHI 374 Spinoza $\mathbf{3 - 3 - 0}$
An in depth study of Spinoza's Ethics with reference especially to the novelty of its method, its relation to philosophies of the tradition and its subsequent influence.

## Continental European Philosophy

PHI 263
Hegel
3-3-0
A study of Hegel's Phenomenology of Spirit with reference especially to the dialectical method and the origin of the philosophy of history.

PHI 265 Nietzsche
3-3-0
This course examines the development of Nietzsche's aesthetic, ethical and political views. Text include The Birth of Tragedy, The Gay Science, Beyond Good and Evil and The Genealogy of Morals.
PHI 267
Heidegger
3-3-0
This course surveys the long career of Martin Heidegger with special attention to his analysis of human being, his articulation of a post-metaphysical philosophy and his pioneer work in environmental philosophy.
PHI 324 / POL 324 The Philosophy and Politics of Karl Marx 3-3-0
A study of the philosophy and political theory of Karl Marx, with empahsis on Marx's theory of society, political economy and history. The course will consider a variety of Marx's texts, but focus on Capital, Volume 1.
PHI 362 Topics In Existentialism and Phenomenology 3-3-0
An in depth study of one of the major contributions to phenomenology (e.g. Husserl's Logical Investigations, Heidegger's Being and Time, Merleau-Ponty's Phenomenology of Perception).
PHI 364 Topics in Postmodern Philosophy 3-3-0
Discussion of recent philosophical critiques of modernity with reference especially to the question of whether the intellectual and social/political movements which have shaped the modern world give that world the resources for understanding itself genuinely. Texts will be drawn from Heidegger, Foucault and Deleuze and Derrida.
PHI 366 / POL 325 Topics in Critical Theory
3-3-0
This seminar course will explore the development of Critical Theory from its roots in dialectical philosophy (especially Hegel and Marx), to its appropriation of psychoanalysis (especially Freud), to its engagement with contemporary politics, society and art. Authors studied may include Walter Benjamin, Theodor Adorno, Max Horkheimer and Herbert Marcuse.
Pre-requisite: POL 228 or POL 229, or one course in Philosophy.

## Problems, Special Interests and Service Courses <br> PHI $244 \quad$ Philosophy of Mind $\quad$ 3-3-0

Theories of mind including those developed by Aristotle, Descartes, Hume, Berkeley, Ryle, Strawson and Armstrong.
PHI $249 \quad$ Philosophy of History 3-3-0
The course looks at the philosophical treatment of history in thinkers such as Hegel, Marx, Neitzsche and Collingwood.
PHI 279 Between Transcendentalism and Pragmatism 3-3-0 Inspired by the European romantics and idealists but charting a distinctly New World path, the great philosophical and literary authors of the $19^{\text {th }}$ century New England Renaissance gave birth to Transcendentalist philosophy - especially in authors like Ralph Waldo Emerson and Henry David Thoreau. Spurning the elitism and dualistic battles of European thought, this movement affirmed the wisdom of emotion and sensuality but without spurning reason. The transcendentalists prepared the ground for the birth of Pragmatism in the late 19th century, especially in philosophers like Charles Sanders Peirce, William James and, in the next generation, John Dewey. Temporarily eclipsed by the rise of analytic philosophy in the mid-twentieth century, a new wave of pragmatism in authors like Hillary Putnam and Robert Brandom is becoming enormously influential on both sides of the Atlantic. This course will follow the development of pragmatism from its earliest roots right into most important contemporary debates.
PHI 340
Ethics on the Cutting Edge
3-3-0
Ethical controversies ring more loudly than ever in our society and, in step with this, so too does a flourishing philosophical debate that charts a new path of ethical engagement that avoids moral relativism on the one hand and mere analytic reasoning on the other. This course will explore the writing of some of the most dynamic contemporary writers on ethics and the good life, including Emmanuel Levinas, Charles Taylor, Martha Nussbaum, Alasdair MacIntyre and others.
Prerequiste: at least one course in Philosophy

PHI 343 Topics in Philosophy of Language and Hermeneutics 3-3-0
This course will focus on the development of the hermeneutic philosophy of language whose origin dates to the late 18 th century. The major figures studied will include Wittgenstein, Heidegger and Gadamer.
PHI 345 Topics in Philosophy of Film
3-3-0
This course will explore key philosophical themes through film. Students will combine viewing and discussion of film with the study of related philosophical texts.
Pre or Co-Requisite: Any course in philosophy or any course in the Film Studies minor.
PHI 346 Topics in The Philosophy of Art 3-3-0
A look at some attempts by major thinkers to account for the nature of art and beauty, focusing on texts of Plato and Aristotle, Kant and Hegel, Nietzsche and Heidegger.
PHI 347 Topics in Philosophy of Literature 3-3-0
From the time of Plato's engagement with Homer to the contemporary philosophical dialogue with poetry and the novel, philosophy and literature have had a rich and sometimes controversial relationship. This course will explore this dynamic interaction through the careful study philosophically significant works of literature and related works of philosophy.
PHI 348 / POL 348 Topics in Social and Political Philosophy 3-3-0
This course will typically consist of a detailed study of a great work of Western social and political philosophy. Students will be expected to present seminars and do research on the text itself, the social and political context in which it emerged and its implications for all serious inquiry into questions of society and politics.
PHI 349 Topics in Feminist Philosophy $\quad$ 3-3-0
An introduction to feminist thought from the Enlightenment to the present, looking at some feminist discussions in ethics, theory of knowledge, philosophy of language, and philosophy of science.
PHI 352 Topics in Philosophy of Being 3-3-0
A detailed study of key themes in metaphysics and ontology, including topics like the nature of first philosophy, the nature of the philosophical God, the notion of Spirit and the character of our being in the world.
Prerequiste: at least one course in Philosophy
PHI 353 Topics in the Philosophy of Knowledge 3-3-0
A detailed study of key themes in epistemology, including topics like the nature of a priori concepts, empiricism, scientific method, knowledge as self-transcendence and the self-withdrawal of Being.
Prerequiste: at least one course in Philosophy
PHI 354 The Philosophy of Contemplation
3-3-0
When Plato said that "philosophy begins in wonder" he inaugurated a tradition in the West in which contemplation and the awe that accompanies it were elevated to among the richest and most sublime of human experiences. Here West joined East, which already had a centuries-old devotion to contemplation in the Hindu, Buddhist and Taoist traditions, among others. This course will develop not just a familiarity with the philosophical theories of contemplation but also cultivate precisely the kinds of contemplative experiences that draw us towards transcendence.
PHI 355 Analysis Seminar 3-3-0
An in depth study of one of the major contributions to analytic philosophy (e.g. Strawson's Individuals, Quine's Word and Object, or Geach's Reference and Generality).
Prerequisite: PHI 204
PHI 387 Topics in the World Philosophy $\quad$ 3-3-0
Explores one or more of the world's great philosophical traditions, such as Buddhist, Taoist, Hindu, African and North American philosophy.
Prerequiste: at least one course in Philosophy

## Cognate Courses

FRA 262
ESG 366
LIB 210, LIB 211, LIB 212, LIB 213, LIB 214, LIB 215, LIB 216
POL 323, POL 324, POL 329
PSY 342, PSY 443
SOC 122, SOC 320
REL 232, REL 233, REL 252, REL 253, REL 330, REL 331

## Pre-Law

## Program Overview

The pre-law program - the certificate and the minor - is designed to ground students in the theoretical underpinnings of lawmaking and interpretation, concepts of justice and equity, and civic governance and responsible citizenship, while also building a knowledge-base in a wide array of related disciplines, such as literature, history, politics, and criminology. The program will also expose students to core competencies - such as problem solving, critical reading, oral and written communications, research, organization and time-management, leadership, and team-building - that enhance capacities for success in law school or other careers within the justice system.

This program is interdisciplinary and offers students the opportunity to develop and/or hone their skills in the areas of logic and critical thinking, argumentation and debate, time-management, and group dynamics. The program aligns with the vision and values of Bishop's University, and seeks to enhance the mission to provide students with an exemplary undergraduate experience in the classroom and beyond. To develop these competencies, students will choose from a list of Humanities, Social Sciences, and other courses provided and will take one capstone course, to be offered annually during the Winter term. Participants should note that the program does not guarantee admission to law school but seeks rather to help in their success once admitted.

Course selection from a select list is based on LSAT criteria and disciplinary knowledge: Content, Reading Comprehension, Analytical Reasoning, Writing proficiency, and Logical Reasoning.

For contact and more information on the Pre-Law program please go to the following website: https://www.ubishops.ca/aca-demic-programs/faculty-of-arts-and-science/humanities/pre-lawprogram/

## Programs

## Pre-Law Minor (24 credits)

## MINPRL

For the minor, students will take two courses each from the Logical and Analytical Reasoning lists, three from the Reading and Writing categories, and the capstone course.

For the minor, double counting will be allowed on the same basis as the certificate and students may not take more than two 100 level courses. Double counting of courses between the certificate and a student's major or honours program should be set at a maximum of two courses or six credits. To receive the certificate, students may not take more than three 100 level courses.

## Pre-Law Certificate (30 credits) CONPRL

For the certificate, students will be obliged to take one course from the Content list, two courses from each of the Analytical and Logical Reasoning lists and four courses from the Writing and Reading category, plus the capstone course, in order to complete the program.

In order to ensure that this is a selective program for students, the minimum average required for admission into the certificate will be $80 \% / 25 \mathrm{R}$ score.

Please note also: Courses taken within the Pre-Law Certificate program cannot be counted as courses towards a university degree. Students currently enrolled in an undergraduate program at Bishop's should therefore take the minor, the courses for which can be counted towards their degree.

## List of Courses

(Please refer to other sections of the Academic Calendar for full course descriptions)

## 1. Content

BMG 221 Business Law
CLA 321 Laws and Outlaws in Ancient Rome
DRA 131 Acting I
DRA 132 Acting II
DRA 212 Theatre and the State
FIH 240 Art Popular and Mass Culture
HIS 228 Memory, Truth and Reconciliation
HIS 229 Human Rights and Humanitarian Organizations
HIS 300 The Law of the Land: Indigenous Treaties with Canada
HIS 393 Inquisitions, Law and Society
LIB 370 Social Movements and Social Change in Brazil
REL 200 Politics and Religion
ECO 217 International Economics
ECO 237 Economics of the Environment
SOC 207 Sociology of Indigenous-Settler Relations
SOC 209 Young Offenders
SOC 235 Women and the Penal System
ESG 354 Environmental Impact Assessment
POL 101 Introduction to Comparative Politics
POL 112 Introduction to Canadian Politics
POL 118 Constitutional Law and Canadian Government
POL 214 Public Administration
POL 344 The Politics of International Trade and Investment
POL 345 Introduction to Public International Law
PSY 356 Forensic Psychology
2. Analytical Reasoning (making connections)

BMG 322 Change Management - Prereq: BHR 221
BMG 323 Interpersonal Skills - Prereq: BHR 221
ENG 205 The Art of Rhetoric
ENG 255 Legal Bodies: Crime \& Culture in Victorian England
ENG 352 Canadian Literature and Theories of Globalization
FIH 314 Colonial and Postcolonial Issues in the Visual Arts
HIS 235 Europe's Queer History
HIS 234 The Italian Renaissance
HIS 269 First Nations/Settler Relations
LIB 212 In Search of Justice
LIB 214 Human Will and Nature
LIB 222 Citizenship and Democratic Practice I
LIB 223 Citizenship and Democratic Practice II
REL 232 Philosophy of Religion I
REL 233 Philosophy of Religion II
ECO 322 Real Estate Economics
SOC 208 Criminology
SOC 230 Deviance 1
SOC 298 Social Problems
SOC 309 Advanced Seminar in Global Colonization and Decolonization
SOC 331 Deviance 2: Selected Topics
SOC 340 Women: Theory and Ideology
SOC 396 Post-Colonial Theory
ESG 350 Environmental Justice
POL 334 Public Policy Analysis
POL 338 International Law and Human Rights

## 3. Logical Reasoning (problem solving)

BHR 316 Organizational Conflict and Negotiation
LAT 101F Beginners' Latin I
LAT 200 Intensive Intermediate Latin (or LAT 201a. 202b)

Any 100 or 200 level Philosophy courses
MAT 100 Excursions in Modern Mathematics
MAT 200 Introduction to Discrete Mathematics
SOC 315 Political Sociology in the Digital Era
SOC 311 Quantitative Tools for Social Research
PSY $330 \quad$ Psychology and Ethics

## 4. Reading Comprehension and

 Writing ProficiencyAny 200 or 300 level courses in Classical Studies, English, History and Global Studies, Religion

## Religion

## Faculty

## Michele Murray,

B.A. (Trinity Western), M.A, (Hebrew

University of Jerusalem), Ph.D.
(Toronto); Professor
Chair of the department
Daniel Miller,
B.A., M.A. (Toronto), M.A. Ph.D.
(Michigan), Associate Professor

## Program Overview

The study of religion has been a foundational part of Bishop's University's mission since the institution's establishment in the mid-19th century. At that time the focus was on Christianity, but today, as a department in the Humanities division, we offer a broad range of courses covering the major world religions and examining religion from a number of perspectives. Our objective is to further the understanding of religion, not to advocate its practice or non-practice. To this end, we offer courses in three major categories.

Courses in "Biblical Studies" invite students to become familiar with the sacred texts of the Jewish and Christian traditions, to examine the historical and cultural contexts of their origin and development, and to acquaint themselves with the critical, analytical, theoretical and historical tools for inquiry into these texts.
"World Religions" courses offer a knowledge of the sacred texts, traditions, rituals, beliefs and practices of the world's major religions. Students will come to appreciate the richness and depth that characterize these religions, which have elicited devotion from persons in every time and place.

The courses in the third category, "Approaches, Perspectives and Expressions," reflect the fact that religions and religious life do not exist in a vacuum, but are linked to other aspects of human life, including philosophical thought, psychological, social, political and economic dimensions, and literature and fine arts.

Because religions have significantly influenced, and been influenced by, the political, artistic, intellectual, social and economic life of cultures throughout history, the academic study of religion is an interdisciplinary pursuit. Students taking an Honours or Major program in Religion are encouraged to take courses in other, related fields and, conversely, students in other disciplines are welcomed in Religion courses in order to round out their understanding of their areas of concentration.

Students planning on entering professions such as education, social work, law, theatre, music, business, etc. may study religion in order to enhance their vocational and personal lives. The study of religion may also, of course, be in preparation for some form of ministry.

## Programs

## Honours in Religion ( 60 credits) HONREL

Students must keep an average of at least $70 \%$ as calculated from the best 60 credits in the program (including cognates). Students have the option of writing an Honours thesis in their final year.

Students usually take the Honours program if they plan to pursue graduate work. See the Major in Religion below.

## Major in Religion (42 credits)

MAJREL
Honours and Majors are also required to fulfill the following minimum distribution requirements ( 30 credits; see the course lists for course descriptions):
Biblical Studies: 6 credits from: REL 112, REL 114, REL 115, REL 135, REL 214, REL 215, REL 328
World Religions: 12 credits, including REL 100 and REL 101, plus 6 credits from: REL 124, REL 125, REL 126, REL 127
Approaches, Perspectives and Expressions: 12 credits, including: REL 232 and REL 233

# Minor in Religion (24 credits) 

MINREL
Any 24 credits in Religion

## List of Courses

## Biblical Studies

REL 112 The Traditions of Ancient Israel 3-3-0
An exploration of the world of the ancient Israelites, the forerunners of the Jewish people. Material from selected books of the Hebrew Bible (also called the Old Testament) will be combined with archaeological data and evidence from inscriptions to situate Israelite civilization within the socio-cultural context of the wider ancient Middle Eastern and Mediterranean worlds.
REL 114 Biblical Hebrew I
3-3-0
Introduction to biblical Hebrew grammar, and reading of simple texts.
REL 115 Biblical Hebrew II 3-3-0
More advanced biblical Hebrew grammatical concepts, and study of more challenging texts.
REL 135 The World of the New Testament 3-3-0
How did Jesus the Jew come to be known as Jesus Christ? What was the GraecoRoman world that birthed the first-century Jewish sect that became Christianity like? Through an analysis of various New Testament documents and other early Christian writings, this course will focus on the social, historical and political context of the Graeco-Roman world that gave rise to Christianity.
REL 214 Israelite Mythology and Cultic Practice $\quad$ 3-3-0 An examination of mythology and cultic practices within Israelite society, as reflected in the Hebrew Bible (Old Testament). Extra-biblical texts and archaeological evidence will be used to contextualize the biblical material. Topics include: the origins of the Israelite deity Yahweh; monotheism and polytheism; goddess worship; child sacrifice.
REL 215 Fake News? History vs. Legend in the Narrative of Early Biblical Israel

3-3-0
An examination of historical accounts concerning the Israelites in the Hebrew Bible (Old Testament), with a view to assessing their historical authenticity. Extrabiblical texts and archaeological evidence will be used to contextualize the biblical material and to evaluate its claims. Topics include: the Patriarchs (Abraham, Isaac and Jacob); Joseph in Egypt; the Exodus; the Israelite settlement in Canaan; the supposed "United Monarchy" under David and Solomon; David and Goliath.
REL 247 Study Tour of Biblical Israel
6-3-0
This six-credit course explores the historical, archaeological and cultural contexts of the origin and development of the Jewish and Christian traditions. After preliminary lectures on campus, students will spend 10-12 days travelling in Israel and visiting the major archaeological sites pertinent to Judaism (and its precursor ancient Israelite religion) and Christianity.
REL 311
Advanced Study in Biblical Texts
3-3-0
This course closely examines selected biblical texts with special reference to context and (re)interpretation.
REL 328 Christian Origins
3-3-0
This course explores a variety of early Christian and Jewish texts to understand
the existence of different Christianities in the first four centuries of the Common Era and the complex relationship between Jews and Christians within the broader historical context of the Roman Empire. Possible topics to be discussed include: How did Christianity become its own religion, separate from Judaism? What did Christians believe about Jesus and about their own identity in the formative period of Christianity? What social and cultural forces forged the earliest images of Jesus? Prerequisite: REL 135 or permission of the instructor

## World Religions

REL 100 Western Religions
3-3-0
An introduction to Western religious traditions (Zoroastrianism, Judaism, Christianity and Islam). In addition to addressing the historical evolution, religious practices, writings, fundamental concepts, beliefs and cultural expressions of each of these traditions, the course will also consider methodological issues pertaining to the study of religion as an academic discipline.

REL 101 Eastern Religions
3-3-0
An introduction to Eastern religious traditions (Hinduism, Buddhism, Jainism, Sikhism and Shinto). In addition to addressing the historical evolution, religious practices, writings, fundamental concepts, beliefs and cultural expressions of each of these traditions, the course will also consider methodological issues pertaining to the study of religion as an academic discipline.

## REL 120 /

CLA 112 Ancient Greek Mythology 3-3-0
The origin and development of Greek mythology, and the importance of myths in understanding ancient literature and religion: theories of myth, cult and ritual, mystery religions, the epic tradition. Greek sources are read in translation.

## REL 124 Hinduism: The Many Faces of the Divine 3-3-0

A study of Hinduism in its infinite variety from earliest times to the present. Topics include: the Indus Valley Civilization; early Vedic religion, its myths and gods; the Upanishads; Brahmanism; the Ramayana and the Mahabharata; the caste system; Vaishnavism, Saivism and goddess worship.
REL 125 Buddhism: The Middle Way 3-3-0
The origins of Buddhism in its native India and its spread throughout many countries of the East. Topics include: the relationship of Buddhism to Hinduism and Jainism; the development of the monastic order, principal teachings and practices; meditation; ritual; study of major writings and modern developments.
REL 126 Judaism: A Covenant with God
3-3-0
An introduction to the history, literature, ideas and practices of Judaism from its biblical origins to the present. Topics include: the major festivals and High Holidays; Torah and Talmud, mitzvah and midrash; philosophers of Judaism; Kabbalah and the mystical tradition; temples and synagogues; Rabbinic Judaism; Orthodox, Conservative and Reform; dietary and religious practices; women and the rabbinate; rites of passage; the Holocaust; the modern state of Israel and messianism.
REL 127 Islam: Submission to Allah 3-3-0
The history, literature, ideas and practices of Islam from its origins to the present. Topics include: pre-Islamic Arabia; the life, example and practices of the Prophet Muhammad; the Qur'an; the caliphate and the ummah; sunnah and Hadith; the Five Pillars and worship; shari'ah; Sufism and the mystical tradition; Sunni and Shiite; women in Islam; art and architecture in Islam; Islam and modernity.

## REL 205 <br> Indigenous Religious Traditions <br> 3-3-0

This course will examine the kinds of religious experiences found among the indigenous peoples of the Americas, with a particular emphasis on the traditions of Canada's First Nations (for example, Cree, Iroquois, Mohawk) and Inuit. Beyond the Canadian landscape, possible topics will include the religious traditions of the Inca, Aztec, Maya and Lakota.

## REL 238 /

CLA 238 Greece: Land of the Gods
6-3-0
This six-credit course examines the sacred art and architecture of ancient Greece from Mycenae to Byzantium on site in Greece. Offered in the Spring semester. After preliminary lectures on campus students will spend two weeks traveling to the major sacred sites of mainland Greece. Travel plans must be finalized by the middle of January prior to departure in May. Contact the Classics department for information.
American students on US Federal aid cannot enrol in this course for credit. Open to first-year students. Instructor's permission required.
REL 239 The Prehistoric Origins of Religion
How old is religion and when did humans like ourselves and our distant ancestors first become religious? This course will trace the origins of the earliest spiritual
and religious beliefs from prehistory, through the beginnings of agriculture to the rise of the first civilizations in Mesopotamia and Egypt some five thousand years ago. We will begin by examining the nature of spiritual beliefs and religion and question their relationship to the physical evolution and cognitive development of our human ancestors. Is there any evidence from prehistory for spiritual or religious beliefs? If so, how were these beliefs first expressed, and who were the first priests and shamans? We will look for answers to these questions by examining artefacts from the archaeological record, such as ritual burials, ancestor worship, skull cults, cave paintings, animal spirits, body decoration and the numerous "Venus" or fertility statuettes. Finally, what do early forms of religious architecture, such as Göbekli Tepe in eastern Turkey and other standing-stone structures, tell us about the formation of early religious beliefs and organizations during the Neolithic Period?

REL 280 / CLA 280
Roman Religion
3-3-0
This course examines the religion of the ancient Roman people, following the traditions and changes from the 8th century BCE to the Imperial period. Roman religion was very different from the monotheistic religions with which many of us are familiar today, but it was also significantly different from the mythology of the ancient Greeks, despite the Romans' willingness to absorb and adapt the Greek myths. Topics to be studied in this course will include the Roman concept of divinity, beliefs about the dead, religious and cult ritual, senatorial and imperial control of religion, emperor worship, divination and prophesy, festivals, and Roman responses to the introduction of foreign religions.

## Approaches, Perspectives and Expressions

## REL 109 / <br> CLA 109 Egypt and Mesopotamia: From the Rise of Civilization to the Persian Conquest

3-3-0 The geographical region of Mesopotamia (modern Iraq) saw the development of the first complex urban society more than 5,000 years ago. At the same time, a second complex society, Egypt, was forming along the banks of the Nile River in Africa. Employing a mixture of historical texts and archaeological research, this course will give an overview of ancient Egypt and Mesopotamia covering the time from the Neolithic Period (generally said to have begun ca. 10,000 BCE) to the Persian conquest in the sixth century BCE. The course will begin with the development of seed agriculture and animal domestication, followed by the formation of early complex societies (civilizations), including the formation of the first cities, the first writing systems, and major building projects in the form of temples and pyramids. In addition to examining the lives and the political careers of important historical characters, the course will also explore the religious beliefs and the techniques of astronomy, medicine and warfare prevalent at the time.

## REL 148 Psychology of Religion

An introduction to major theoretical approaches to the psychological understanding of religion: pragmatism (William James), Psychoanalysis (Sigmund Freud, Carl Jung, Erik Erikson) and Humanism (Gordon Allport, Abraham Maslow).
REL 149 Sociology of Religion
3-3-0
An introduction to the understanding of religion as a social phenomenon: a discussion of the views of Ludwig Feuerbach, Karl Marx, Emile Durkheim, Max Weber, Peter Berger and Robert Bellah.
REL $200 \quad$ Politics and Religion
3-3-0
This course examines the intersection between extremist religious beliefs and political power, predominantly but not exclusively those cases in which violence and serious conflict have arisen. Topics include: radical Zionist settlers in the West Bank; the triumph of Islamic theocracy in Iran; conservative Christian evangelicals in the United States; radical Islamist groups (e.g., ISIS, Al Qaeda and the Taliban).
REL 203 /
CLA 206 Early Christian Art and Architecture 3-3-0
This course examines the ways in which the Christians adapted elements from Greek, Roman and Near Eastern art and architecture to their religious beliefs and requirements and also studies the development of this new Christian art in the Byzantine Empire. Major topics include: Catacomb art, early Christian and Byzantine architecture, mosaic and painting, manuscript illuminations, textiles and the minor arts.
REL 204 /
CLA 204 Women in Religion
3-3-0
An investigation of the religious lives of early pagan, Jewish and Christian women in the context of the Graeco-Roman world. Literary and epigraphical sources from the fourth century BCE to the third century CE are analyzed in order to determine
women's roles, rites and practices, with special attention to constructions of gender in the Graeco-Roman world.
Open to first-year students.
REL 206 Apocalypse
3-3-0
It's the End of the World as We Know It... Whereas cosmic time in Eastern religious traditions is generally seen as cyclical, with recurring phases of creation and destruction, in Western-based religions such as Judaism, Christianity and Islam it is viewed as linear, with a single creation and a final destruction of this present world - the apocalypse. This course will look at the sacred texts that underpin apocalyptic concepts in established Western religions (e.g., the biblical books of Daniel and Revelation), and examine how apocalyptic beliefs have been given expression in these traditions. Consideration will also be given to End Time beliefs in more recent "apocalyptic" movements (e.g., Heaven's Gate and the Branch Davidians).

## REL 207 Sex and Religion

3-3-0
This course provides an overview of topics in which issues of sex and sexuality intersect with particular Eastern and Western religious traditions. The course is selective rather than comprehensive. Topics that could be covered include: menstruation and early sexuality; heterosexuality; contraception; homosexuality; same-sex marriage; celibacy; asexuality; sex and the sacred. Attitudes, traditions and regulations pertaining to these topics will be explored from various religious perspectives through readings and films.
Prerequisite: REL 100 or REL 101 or permission of the instructor

## REL 208 /

LIB 216 The Divine and Ultimate Concern
3-3-0
The divine is that about which we are "ultimately concerned"-so said theologian Paul Tillich of Union Seminary in New York. Is this just a last-ditch attempt to salvage faith and spirituality in the midst of charges that religion is, at best, an "opiate of the masses" (Marx) and, at worst, "patently infantile" (Freud)? Or again, is the role of religion being taken over by its longtime sister in spirit-art? This course will explore the troubled and passionate place of religious experience and the aesthetic in Western civilization.

## REL 209 Sports and Religion

3-3-0
This course will examine the intersection between sport and religious mentality and expression. Topics will include the rituals associated with athletics, supposed sports miracles and curses, prayer, the passion of the individual fan ("flow") and the euphoria of the collective ("communitas").

## REL 232 Philosophy of Religion I

3-3-0
The subject matter of this course consists of philosophical arguments for the existence of God. Lectures and discussions will be based on original texts (in translation): Thomas Aquinas's five proofs and the ontological argument in its classical (Anselm) and modern formulations. The modern and much debated argument from design will also be discussed. The class will also learn the standard critiques of those arguments by David Hume, Immanuel Kant and others. If time allows, this will be followed by an analysis of the problem of evil as counting against belief in the existence of God.
REL 233 Philosophy of Religion II
3-3-0
This course focuses on two issues: (1) the problem of evil—if there is a God who is perfectly good and loving, omnipotent and omniscient, why do people suffer?; (2) the problems of religious knowledge, understanding and discourse- what, if anything, can one know of God, is talk of God meaningful and, if so, how? How might religious texts be interpreted and understood? Subjects include: the classical theory of analogy; modern empiricism; contextual semantics; recent hermeneutical (interpretation) theory.

## REL 234 /

POL 236 Introduction to Middle Eastern Politics 3-3-0
The course will focus on the forces that have shaped current Middle Eastern politics: particularly the growing influence of Islam and Islamic fundamentalism on political life and thought; the enduring legacies of westernization, colonialism and secular nationalism; and the Arab-Israeli conflict. Arriving at an understanding of Middle Eastern politics in this course will also entail study of the challenges modernizing states, parties and leaders are confronting today, and the profound impact of Western interests and policies on the region.
REL 236 /
CLA 236 Death and Dying in the Ancient World
3-3-0
This course explores the myths, rituals and beliefs associated with death and dying in antiquity. Topics include: myths associated with the afterlife; books of the dead; magic and death rituals; understandings of heaven and hell; final judgment.
Prerequisite: REL 100 or REL 101 or permission of the instructor

REL 237
Film and Religion
3-3-0
This course employs film to study religion, and religion to study film. Different genres of film will be used to explore various issues, dimensions and expressions of religion, while images, metaphors and teachings found in religion will be employed to illuminate the material portrayed in film.
REL 302 Of Latter-day Saints and Modern-day Prophets: New Religious Movements

3-3-0 In the past two centuries, a number of new religious groups claiming a significant number of adherents have emerged, joining long-established religions such as Judaism, Christianity, Islam, Hinduism and Buddhism in the global religious tapestry. Some of these groups are recognizably offshoots of much older religious traditions while others are entirely new entities, with only a tangential connection to what has gone before. This course will examine the roots and development of some of these groups, which scholars have generally called "New Religious Movements" (NRMs). Possible movements studied will include: The Church of Jesus Christ of Latter-day Saints (i.e., Mormonism), the International Society for Krishna Consciousness (i.e., the Hare Krishnas), Scientology, Bahá'í, Jehovah's Witnesses, Christian Science and the Raëlian Movement.
REL 303 /
LIB 303 On the Road Again: Pilgrimage in Theory and Practice 3-3-0 This course will examine pilgrimage as embodied experience, with a special focus on contemporary pilgrimage. Cross-cultural approaches and historical context will be key to understanding the current fascination with walking as transformative practice. Theories of identity, community, and belonging will also be discussed. Students will have an opportunity to participate in a short pilgrimage.
REL 310 The Religious Right in the United States:

## From Moral Majority to FOX NEWS

3-3-0
In the early 20th century, in response to the Enlightenment and growing challenges to literalist biblical claims, a conservative movement emerged among American Protestants. For the next several decades, this movement waxed and waned until it found a standard-bearer, the Rev. Jerry Falwell, in the late 1970s. Falwell fronted an organization called "The Moral Majority" and those supporting it became known as the Religious Right. Today, the Religious Right continues to be a significant part of the American cultural and political landscape, with its viewpoint disseminated by FOX NEWS, among other media. This course will examine the theological underpinnings of the Religious Right; the social, political and religious context in which it emerged and has developed; the effect it has exerted on politics in the United States; and its prospects for the future in a country divided by the "culture wars" that began there in the 1990s.
REL 332 /
CLA 332
Magic and Divination in the Ancient Near East
3-3-0
Since the 19th century, magic and divination have been subjects of great scholarly interest. This course will examine how these phenomena were manifested in the region of what is today called the Middle East. We will also look at the supposed polemic against magic and divination in the Hebrew Bible (Old Testament), where calling someone a magician or diviner was a strategy for social control and definition, serving as an element in the construction of views about legitimate and illegitimate religious authority.
REL 335 /
CLA 335 Sacred Space in the Ancient World 3-3-0 How did the ancients experience their surroundings? How did their conceptions of space and place affect their relationships with their deities, their ancestors, and each other? From lofty temples to humble shrines, scared mountains to grottoes, we will explore the intimate connection between sacred places and the development of ancient identity. Archaeological and literary data, as well as modern theories of space and place, will be examined.
Prerequisites: at least two Classics courses or permission of the instructor
REL 350 /
CLA 350 The Goddess: History, Cult and Myth 3-3-0
From Diana's bow to Athena's shield, from the fearsome wail of the Erinyes to the dulcet tones of the Muses, the sacred feminine in all its manifestations has fueled the imagination. How we in the modern world perceive the female divine, however, also reflects our own changing attitudes towards women. In this seminar course, we will examine the sacred feminine in art, archaeology, and literature, from Paleolithic Europe to contemporary America, with a view to understanding the construction of tropes of femininity both in ancient cultures and our own. Topics may include Near Eastern and Graeco-Roman goddesses, Hindu goddesses, gendered archaeology, the virgin Mary, modern goddess movements, and more! Prerequisite: at least two Classics courses or permission of the instructor

Independent Studies

REL 300 Independent Studies I 3-3-0
REL 301 Independent Studies II 3-3-0
REL 402F Honours Thesis 6-3-0
A full-year (two-semester) course in which the student does guided research into a subject, produces a written thesis and, ultimately, gives an oral defence of the thesis.
Prerequisite: departmental acceptance of the thesis proposal

## Cognate Courses

The following courses in other departments are recognized as Religion cognates:

CLA 110 The Art and Archaeology of Ancient Egypt
CLA 113 Classical Mythology: The Greek Influence on Rome
DRA 211 Ritual and Theatre
EDU 313 Teaching Ethics and Religious Culture (Elementary \& Secondary)
HIS 253 A History of Medieval Europe
HIS 278 A History of the Middle East to 1919
HIS 279 The Middle East in the Twentieth Century
HIS 291 Women in the Islamic World
HIS 393 Inquisitions, Law and Society
LIB 384/
ITA 384 Dante's Divine Comedy
Some courses offered in the Liberal Arts program
Some courses offered in the Philosophy Department

## PSY298 Zen and the Brain

This is not an exhaustive list. Religion students should consult the chair of the Religion Department regarding any other courses offered by other departments or programs that they wish to take for Religion credit.

## Division of Natural Sciences and Mathematics

## Overview

The Division of Natural Sciences and Mathematics offers a diverse range of courses, programs and degrees (B.Sc., B.A., M.Sc.) in Biochemistry, Biological Sciences, Chemistry, Computer Science, Environmental Science, Mathematics, Pre Medicine and Physics and Astronomy.

Students enrolled in the experimental science classes receive extensive laboratory experience. Laboratories are well equipped and laboratory courses are instructed by the regular faculty. Each department has its own computer facilities and dedicated study rooms. Laboratories and classes tend to be small (often fewer than 20 students) and students are able to obtain essential feedback from Professors. The Division also offers students free help in learning mathematics/statistics, physics and computer science through Help Centres staffed with upper year students and/or professional tutors, under the supervision of Faculty members. The Bishop's University Astronomical Observatory is also available for graduate and undergraduate research as well as for public viewing.

Graduates from the Division pursue careers in many diverse fields. In recent years these careers have included, but are not limited to: medicine, veterinary medicine, dentistry, biomedical research, engineering, actuarial science, statistics, software engineering, pharmacology, physiotherapy, secondary and primary school science teaching and the chemical industry.

## Degrees and Programs

Detailed descriptions of the degrees and programs offered are found under the respective Departmental sections of this calendar. The Division of Natural Sciences and Mathematics offers selected Masters of Science (M.Sc.) degrees and a wide range of programs leading to the Bachelor of Science (B.Sc.) or Bachelor of Arts (B.A) degrees with Honours or Majors specialization. In addition, several departments offer Minor programs that can be added to one's Honours/Major program, and Computer Science offers a certificate program. Please see the complete list of programs in Table I below.

## Divisional Major

The Division offers an entry level program for a limited number of students, allowing them to register as Divisional Majors (rather than into a specific program) for a maximum of two semesters. After two semesters of full-time study are completed, students must enrol into a specific program (Major). Students who are not accepted into one of the regular programs must consult with the Dean of Arts and Science to determine an academic plan.

## Length of Degrees and Collegial Equivalent Science Courses

All students admitted into their first Bachelor's degree come into a 4-year, 120-credit program. Students having a Québec collegial diploma (DEC), as well as Mature students (please consult the Admission section of the calendar for the definition of Mature status), will be granted up to one year of advanced credits ( 30 credits) if they have completed all the collegial courses that are equivalent to the introductory science courses which must be taken as part of the various science programs. CEGEP/Bishop's course equivalencies are listed below; Bishop's collegialequivalent science courses that must be completed in each of our science programs are listed in Table II. Note that the labs that are associated with many of these courses (e.g. the course BIO 196 has an associated lab named BIL 196), must be taken concurrently.

| Cellular/Molecular Biology | BIO 196 |
| :--- | :--- |
| General Chemistry | CHM 191 |
| Solutions Chemistry | CHM 192 |
| Differential Calculus | MAT 191 or MAT 198 |
| Integral Calculus | MAT 192 or MAT 199 |
| Mechanics | PHY 191 or PHY 193 |
| Electricity and Magnetism | PHY 192 or PHY 194 |

## Arts and Science Requirement

In addition to the courses listed in Table II, in order to encourage students enrolled in the Division of Natural Sciences \& Mathematics to broaden the scope of their education, all majors and honours are required to complete at least three credits in either the Division of Humanities or the Division of Social Sciences. While this requirement will not in itself ensure against excessive specialization, it is hoped that it will lead students to find and pursue various areas of interest. Students with program combinations which require more than 72 credits are exempt from this requirement.

## Advanced Placement

The Division of Natural Sciences and Mathematics grants credit for successful completion of AP examinations in the Sciences as follows. Note that a minimum score of 4 is required. When applicable, credit will also be granted for the lab that is associated with the course (e.g. the course BIO 196 and associated lab BIL 196).

Biology
Chemistry
Computer Science AB
Mathematics BC
Physics C-Mechanics
Physics C-Electricity

## BIO 196

CHM 191 and CHM 192
CS 311
MAT 191 and MAT 192
PHY 191 (or PHY 193)
PHY 192 (or PHY 194)

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| Department/Program | Table I: Programs Offered |  | Specialization Level |
| :---: | :---: | :---: | :---: |
|  | Concentration | Degree type |  |
| Biochemistry |  | B.Sc. | Honours, Major, Minor |
| Biological Sciences | Health Science | B.Sc., B.A | Honours, Major |
|  | Biodiversity and Ecology | B.Sc., B.A | Honours, Major |
|  | Biology |  | Minor |
| Chemistry |  | B.Sc. | Honours, Major, Minor |
| Computer Science |  | M.Sc. |  |
|  |  | B.Sc. | Honours, Major, Minor |
|  |  | Certificate |  |
|  | Information Technology | B.A. | Major |
| Environmental Science (part of Environment and Geography) | Physics | B.Sc. | Major |
|  | Chemistry | B.Sc. | Major |
|  | Environmental Science |  | Minor |
| Mathematics |  | B.Sc., B.A | Honours, Major, Minor |
|  | Mathematics Education | B.Sc., B.A | Double Major* |
|  | Matematicas en Español | B.Sc., B.A | Honours, Major |
|  | Mathematical Contexts |  | Minor |
| Physics |  | M.Sc. |  |
|  |  | B.Sc. | Honours, Major, Minor |
| Science Teaching | Biology | B.Sc. | Double Major* |
|  | Chemistry | B.Sc. | Double Major* |
|  | Physics | B.Sc. | Double Major* |
| *The Division of Natural Sciences and Mathematics, in cooperation with the School of Education, offers students in these programs the opportunity to prepare for professional careers as Secondary School science and mathematics educators. Students must also be registered Education majors in the School of Education. The specific required course lists and program regulations for these double Major programs are found in the School of Education section of this Calendar. All questions concerning application to the School and course requirements should be referred to the Dean of the School of Education. |  |  |  |


| Table II: Collegial-equivalent courses |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Department/Program | Life Science | Chemistry | Mathematics | Physics | Humanities* |
| Biochemistry | BIO 196 | CHM 191 | MAT 198 | PHY 191 or PHY 193 | ENG 116 + 1** |
|  |  | CHM 192 | MAT 199 | PHY 192 or PHY 194 |  |
| Biological Sciences B.Sc. | BIO 196 | CHM 191 | MAT 198 | PHY 191 or BIO 197 | ENG 116+1** |
|  |  | CHM 192 | MAT 199 | PHY 192 or PHY 194 |  |
| Biological Sciences B.A. | BIO 196 |  |  |  | ENG 116 + 1** |
|  | BIO 197 |  |  |  |  |
| Chemistry |  | CHM 191 | MAT 198 | PHY 191 | ENG $116+1$ ** |
|  |  | CHM 192 | MAT 199 | PHY 192 |  |
| Computer Science B.Sc. |  |  | MAT 191 | PHY 191 | ENG $116+1^{* *}$ |
|  |  |  | MAT 192 | PHY 192 |  |
| Information Technology B.A. |  |  | MAT 196 |  | ENG $116+1 * *$ |
|  |  |  | MAT 197 |  |  |
| Environmental Science | BIO 196 | CHM 191 | MAT 191 | PHY 191 | ENG 116+1** |
|  |  | CHM 192 | MAT 192 | PHY 192 |  |
| MathematicsB.Sc. |  |  | MAT 191 | PHY 191 | ENG $116+1 * *$ |
|  |  |  | MAT 192 | PHY 192 |  |
| Mathematics B.A. |  |  | MAT 191 |  | ENG $116+1^{* *}$ |
|  |  |  | MAT 192 |  |  |
| Physics |  | CHM 191 | MAT 191 | PHY 191 | ENG 116+1** |
|  |  | CHM 192 | MAT 192 | PHY 192 |  |
| Science Teaching | BIO 196 | CHM 191 | MAT 191 or MAT 198 | PHY 191 or PHY 193 | ENG $116+1^{* *}$ |
|  |  | CHM 192 | MAT 192 or MAT 199 | PHY 192 or PHY 194 |  |
| * Any CEGEP DEC fulfils the Humanities requirement |  |  |  |  |  |
| ** ENG 116 (Effective Writing) can be replaced by another English course (coded 'ENG'). The second humanities course can be selected from the 100- or 200-level courses in the following disciplines: Classical Studies (CLA), English (ENG), History (HIS), Liberal Arts (LIB), Philosophy (PHI) and Religion (REL) |  |  |  |  |  |

## Transfers from other Universities and Colleges

Students entering a program in the Division of Natural Sciences and Mathematics from another Canadian University or College, or from accredited international post-secondary institutions, will have their transcripts of grades examined individually for possible transfer credit against a Bishop's program's requirements. Please consult the Admission section of this Calendar or the Admissions Office, admissions@ubishops.ca for details.

## Transfers from other programs at Bishop's University

Bishop's students wishing to transfer into a program offered by the Division of Natural Sciences and Mathematics normally require a cumulative average of $65 \%$ on all courses attempted at Bishop's. Students whose average is below $65 \%$ may still register in courses offered in the Division, subject to the normal regulations regarding course registration in the University. Program transfers are not normally permitted in a student's first semester of studies at Bishop's University.

## Graduation "with Distinction"

The notation "with Distinction" will appear on the transcript of students who graduate with a cumulative average of $80 \%$ or more. It is only available for first degree students.

## Biochemistry

Faculty<br>Elizabeth Prusak,<br>M.Sc. Eng. (Tech. Univ., Poland); Ph.D. (Polish Academy of Science);<br>Professor<br>Chair of the Department<br>Virginia Stroeher,<br>B.Sc. (Montana State), Ph.D.<br>(University of Washington); Professor

## Program Overview

The Biochemistry program at Bishop's is coordinated through an interdisciplinary committee of chemists, biochemists and biologists, providing students with a strong background in chemistry, biochemistry and biology necessary for membership in the Chemical Institute of Canada and accreditation by l'Ordre des chimistes du Québec.
The Biochemistry program offers both an Honours degree, which rigorously prepares students for graduate studies or professional schools, and a Major degree, which provides students more flexibility in their program. The program places strong emphasis on mastering the fundamentals of experimental biochemistry, and provides students with well-equipped laboratory facilities, first-
hand experience with modern laboratory equipment, and close instructional contact with professors. As well, the Agriculture Canada Research Station in Lennoxville and the Université de Sherbrooke, with its associated medical research hospital, are easily accessible to students and provide additional opportunities and exposure for interested Honours students.

## Programs

## Biochemistry Honours

(99 credits)
Students are not admitted to the Honours Biochemistry program until the end of their Y3 year.

To be eligible to enter the Honours Biochemistry program, a student must normally achieve:
i) a minimum cumulative average of $75 \%$ by the end of the Y3 year, and
ii) at least $75 \%$ in each 300 -level and 400 -level course required in the program.
To complete the Honours Biochemistry program, a student must;
i) maintain a minimum cumulative average of $75 \%$ and
ii) achieve at least $75 \%$ in each 300 -level and 400 -level course required in the program with a maximum permitted exemption of four credits and
iii) achieve at least $75 \%$ in each of BCH 491 and BCH 492.

The Honours Biochemistry program includes a three credit scientific writing course and a six-credit honours research project that will be evaluated by faculty from, or recognized by, the Biochemistry Program Committee. The scientific results of the honours research project must be presented in public, either through an oral seminar or poster presentation, and the scientific results submitted in a written thesis.

The Biochemistry Honours program is a four-year program that requires 40 three-credit courses, or their equivalent, for a total of 120 course credits, plus associated laboratory courses. The 120 course credits are divided as follows: 78 core required course credits, 21 required optional course credits, 18 free elective credits and 3 humanities or social sciences elective credits.

## Core Required Courses (78 course credits)

Y1 Year

BIO 196 / BIL 196 (Intro Cellular and Molecular Biology)
CHM 191 / CHL 191 (General Chemistry I)
PHY 193 / PHL 193 (General Physics I for Life Science)
MAT 198 (Calculus I for Life Science)
ENG 116 (Effective Writing)
Y2 Year
BIO 201 (Cellular and Molecular Biology)
CHM 111 / CHL 111 (Organic Chemistry I)
CHM 141 / CHL 141 (Analytical Chemistry)
PHY 101 (Statistical Methods)
OPT

CHM 192 / CHL 192 (General Chemistry II)
PHY 194 / PHL 194 (General Physics II for Life Science)
MAT 199 (Calculus II for Life Science)
OPT
OPT

BIO 208 / BIL 208 (Genetics)
BCH 210 (General Biochemistry)
CHM 131 / CHL 131 (Physical Chemistry I)
CHM 211 / CHL 211 (Organic Chemistry II)
CHM 245 / CHL 245 (Instrumental Analysis)* or CHM 341 / CHL 341 (Molecular Spectroscopy)*
( ${ }^{*}$ CHM 245 is offered every second year)

## Y3 Year

| BIO 336 / BIL 336 (Animal Physiology I) | BCH 312 (Lipids \& Biomembranes) |
| :--- | :--- |
| BCH 311 (Proteins) | BCH $313 /$ BCL 313 (Metabolism) |
| OPT | CHM $245 /$ CHL 245 (Instrumental Analysis) ${ }^{*}$ or |
| OPT | CHM 341 / CHL 341 (Molecular Spectroscopy) |
| OPT | ( ${ }^{*}$ CHM 245 is offered every second year) |
|  | OPT |
|  | OPT |

## Y4 Year

BCH 411 (Molecular Biology)
BIO 386 (Scientific Writing)
BCH 491 (Honours Research Project I)
OPT
OPT

BCH 492 (Honours Research Project II)

## OPT

## OPT

## OPT

OPT

## Required Optional Courses ( 21 course credits from the list)

BCH 381 (Immunology)
BCH 382 (Environmental Biochemistry and Toxicology)
BCH 421 (Enzymology)
BCH 422 / BCL 422 (Biotechnology)
BIO 310 (Advanced Cell Biology)
BIO 320 (Programmed Cell Death)
BIO 337 / BIL 337 (Animal Physiology II)
BIO 352 / BIL 352 (Microbiology)
BIO 359 (Human Genetics)
BIO 365 (Developmental Biology)
BIO 394 (Biology of Cancer)
CHM 231 / CHL 231 (Physical Chemistry II)
CHM 311 / CHL 311 (Physical Chemistry III)
PBI 380 (Psychopharmacology)

## Free Electives (18 course credits)

## Humanities or Social Sciences Elective (3 course credits)

## Biochemistry Major (90 credits)

MAJBCH
The Biochemistry Major program is a four-year program that requires 40 three-credit courses, or their equivalent, for a total of 120 course credits, plus associated laboratory courses, the number of lab courses required depending on the specialization selected. The 120 course credits are divided as follows: 69 core required course credits, 21 required optional course credits, 27 free elective credits and 3 humanities or social sciences elective credits.

## Core Required Courses (69 course credits):

## Y1 Year

BIO 196 / BIL 196 (Intro Cellular and Molecular Biology)
CHM 191 / CHL 191 (General Chemistry I)
PHY 193 / PHL 193 (General Physics I for Life Science)
MAT 198 (Calculus I for Life Science)
ENG 116 (Effective Writing)

CHM 192 / CHL 192 (General Chemistry II)
PHY 194 / PHL 194 (General Physics II for Life Science)
MAT 199 (Calculus II for Life Science)
OPT
OPT

Y2 Year

BIO 201 (Cellular and Molecular Biology)
CHM 111 / CHL 111 (Organic Chemistry I)
CHM 141 / CHL 141 (Analytical Chemistry)
PHY 101 (Statistical Methods)
OPT

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BIO 208 / BIL 208 (Genetics)
BCH }210\mathrm{ (General Biochemistry)
CHM 131 / CHL 131 (Physical Chemistry I)
CHM 211 / CHL }211\mathrm{ (Organic Chemistry II)
CHM 245 / CHL 245 (Instrumental Analysis)* or
CHM 341 / CHL 341 (Molecular Spectroscopy)*
(*CHM 245 is offered every second year)
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BCH 312 (Lipids \& Biomembranes)
BCH 313 / BCL 313 (Metabolism)
CHM 245 / CHL 245 (Instrumental Analysis)* or
CHM 341 / CHL 341 (Molecular Spectroscopy)*
(* CHM 245 is offered every second year)
OPT
OPT

Y4 Year

| BCH 411 (Molecular Biology) | OPT |
| :--- | :--- |
| OPT | OPT |
| OPT | OPT |
| OPT | OPT |
| OPT | OPT |

Required Optional Courses (21 course credits from the list)
BCH 381 (Immunology)
BCH 382 (Environmental Biochemistry and Toxicology)
BCH 421 (Enzymology)
BCH 422 / BCL 422 (Biotechnology)
BIO 310 (Advanced Cell Biology)
BIO 320 (Programmed Cell Death)
BIO 337 / BIL 337 (Animal Physiology II)
BIO 352 / BIL 352 (Microbiology)
BIO 359 (Human Genetics)
BIO 365 (Developmental Biology)
BIO 394 (Biology of Cancer)
CHM 231 / CHL 231 (Physical Chemistry II)
CHM 311 / CHL 311 (Physical Chemistry III)
PBI 380 (Psychopharmacology)
Free Electives (27 course credits)
Humanities or Social Sciences Elective (3 course credits)

## Biochemistry Minor (24 credits) MINBCH

The program requires 8 three-credit one-semester courses, or their equivalent, for a total of 24 course credits, plus credits for associated laboratory courses.

## Required Courses: ( $\mathbf{1 5}$ course credits) <br> BCH 311 (Proteins) <br> BCH 312 (Lipids \& Biomembranes) <br> BIO 208 / BIL 208 (Genetics) <br> BIO 336 / BIL 336 (Animal Physiology I) <br> CHM 141 / CHL 141 (Analytical Chemistry)

Required Optional Courses
( 9 course credits from list):
BCH 313 / BCL 313 (Metabolism)
BCH 381 (Immunology)
BCH 411 (Molecular Biology)
BCH 421 (Enzymology)
BIO 310 (Advanced Cell Biology)
BIO 320 (Programed Cell Death)
BIO 337 / BIL 337 (Animal Physiology II)
BIO 352 / BIL 352 (Microbiology)
BIO 394 (Biology of Cancer)
CHM 131 / CHL 131 (Physical Chemistry I)
CHM 211 / CHL 211 (Organic Chemistry II)

## List of Courses

BCH 101 Introduction to Nutrition
3-3-0
This course is designed for students from any discipline (except Biochemistry, Biology and Chemistry). It will provide an introduction to basic concepts of nutrition and ways that good nutrition can be integrated into a healthy life style. Principles of digestion and absorption, the function of nutrients, disease prevention, diet modification and weight control will be discussed.
Prerequisites: None. However, secondary school Biology is strongly recommended. Note: This course may not be taken for credit by students in Biology, Biochemistry or Chemistry programs.
BCH 210 General Biochemistry 3-1-0
An introduction to the structure and function of biomolecules with the emphasis on the central phenomena behind the behavior of biomolecules in the cellular environment.
Prerequisites: CHE 111 and BIO 201

## BCH 311 Proteins 3-3-0

Protein structure and function, including protein purification, structure analysis, protein synthesis, distribution and degradation, as well as molecular visualization of protein structure.
Prerequisite: Chemistry 111 and BCH 210
BCH 312 Lipids and Biomembranes $\quad$ 3-3-0
Biomembranes structure and function, including study of cell membrane structure, and transport, trans-membrane signaling, hormones and secondary messengers.
Prerequisite: BCH 311
BCH 313 Metabolism
3-3-0
Introduction to the basic metabolic pathways of living cells. These include the central metabolic pathways associated with cellular energy generation, carbohydrate degradation and synthesis, fatty acid degradation and synthesis, lipid metabolism and nitrogen metabolism. Emphasis will be placed on the role and regulation of enzymes associated with these pathways.
Prerequisite: Chemistry 111 or BIO 155, and BIO 336
Co-requisite: BCL 313
BCL 313 Metabolism Laboratory
1-0-3
This course introduces the student to research approaches in metabolic enzymology and the study of enzyme kinetics. Environmental factors influencing enzyme activity as well as the effects of different inhibitory molecules will be examined. As well, protein isolation and analysis will be covered.
Co-requisite: BCH 313
BCH 371 Independent Studies in Biochemistry I
3-1-3
This course is not regularly offered and is only meant for final-year students who wish to pursue in-depth study of a particular area of biochemistry or who have a special need for a biochemistry course that would otherwise not be available during their final year of course work. This course can only be done in close collaboration with a faculty advisor from within the Biochemistry program, and may not be used as a supplement to a student's honours project. Requirements for this course will be agreed upon by a committee of professors from within the Biochemistry Program.
Prerequisite: Permission of the Biochemistry Committee
BCH 372 Independent Studies in Biochemistry II
3-1-3
This course represents an additional semester of independent work, either a continuation of or a separate course from BCH 371, meant for final-year students who wish to pursue in-depth study of a particular area of biochemistry or who have a special need for a biochemistry course that would otherwise not be available during their final semester of course work. This course can only be done in close collaboration with a faculty advisor from within the Biochemistry Program, and may not be used as a supplement to a student's honours project. Requirements for this course will be agreed upon by a committee of professors from within the Biochemistry Program.
Prerequisite: Permission of the Biochemistry Committee
BCH 381 Immunology
3-3-0
A comprehensive study of the fundamental principles of immunobiology. Intercellular recognition and self/non-self discrimination. Clonal selection theory and genetic basis of antibody diversity. Biochemistry of immunoglobulins. Regulation of immune response and tolerance.
Prerequisites: BIO 201 and BIO 208

BCH 382 Environmental Biochemistry and Toxicology
3-3-0
This course will examine the biochemical effects of environmental stresses on organisms, and adaptations that allow organisms to face these stresses. Emphasis is placed on biochemical responses to toxic compounds such as aromatics, halogenated aliphatics, drugs, and heavy metals. Other topics will include adaptations to stresses such as temperature extremes, pathogens, and ionizing radiation. Applications to related biotechnological processes may also be considered.
Prerequisite: BIO 201 and BIO 208
BCH 411 Molecular Biology 3-3-0
The molecular biology of nucleic acids and proteins, including DNA replication, mutation, and recombination; RNA transcription; and protein synthesis. Also covered will be protein/nucleic acid interactions and regulation of gene expression. Prerequisite: BIO 201, BIO 208
BCH 421 Enzymology 3-3-0
Kinetics of enzyme reactions and mechanism of catalysis. Regulation by allosteric effectors and covalent modification. Protein targeting and degradation.
Prerequisites: $\mathrm{BCH} 311, \mathrm{BCH} 312$ and BCH 313
BCH 422 Biotechnology 3-3-0
This course will explore the technical approaches used in current research and biotechnology, emphasizing the applications of molecular strategies and processes studied in BCH 383. Both the theoretical and practical aspects of these molecular approaches will be discussed, as well as how these techniques are utilized and how they have changed modern research and medicine.
This course will be offered every second year.
Prerequisite: BCH 383 (may be taken concurrently)
Corequisite: BCL 422
BCL 422 Biotechnology Laboratory
1-0-3
Practical application of several of the techniques introduced in BCH 422.
Prerequisite: BCH 383 (may be taken concurrently)
Corequisite: BCH 422
BCH 491 Honours Research Project I 3-1-6
An introduction to the planning, execution and reporting of biological research offered to students matching eligibility criteria. Each student is required to choose a research problem and, in consultation with a departmentally approved supervisor, draw up a formal research proposal of work to be undertaken. The final mark in this course will be based on the research proposal, preliminary research completed on the stated project, and presentation of a poster during the final week of classes. Satisfactory completion of BCH 491 with a minimum overall mark of $75 \%$ with a minimal score of $70 \%$ in each graded component, is required for enrolment in BCH 492.
Prerequisite: Permission of Biochemistry Committee
Co-requisite or prerequisite: BIO 386

## BCH 492 Honours Research Project II

3-1-12
A continuation of BCH 491 offered to students matching eligibility criteria. The student will complete all research as outlined in the research proposal. The final mark in this course will be based on the quality and amount of research completed, presentation of a departmental seminar during the final week of classes, open to the public, based on research findings, and submission of a final written honours thesis. Enrolment in BCH 492 is conditional upon completing BCH 491 with a minimum mark of $75 \%$. Satisfactory completion of BIO 492 with a minimum overall mark of $75 \%$, with a minimal score of $70 \%$ in each graded component, is required to complete the Honours program
Prerequisite: BCH 491

## Biological Sciences

## Faculty

Patrick Bergeron,

B.Sc. (McGill), Ph.D. (Université de Sherbrooke), Associate Professor
Marylène Boulet,
B.Sc. (Laval), M.Sc. (Laval), Ph.D. (McMaster), Senior Instructor
Estelle Chamoux,
Ph.D. (Sherbrooke); Associate Professor
Kerry Hull,
B.Sc, Ph.D. (Alberta); Professor

Michael Richardson,
B.Sc., M.Sc., Ph.D. (McGill); Associate Professor

Chair of the Department
Jade Savage,
B.Sc., Ph.D. (McGill); Professor

Virginia Stroeher,
B.Sc. (Montana State), Ph.D. (University of

Washington); Professor

## Program Overview

The Biology programs educate students about diverse aspects of living organisms, ranging from microbes to human populations to complex ecosystems. Many of our graduates go on to graduate and professional studies in medicine, dentistry, veterinary medicine, the allied health sciences, forestry, wildlife biology, microbiology or biotechnology. A degree in biology also prepares students for direct employment in the biotechnology sector, environmental biology, or some allied health fields.

The Biology program's best attribute is its teachers. Our faculty members are dedicated to undergraduate teaching and enjoy helping students develop their knowledge and skills both in and out of the classroom.

The Department of Biological Sciences is well equipped for study and student research in zoology, botany, physiology, molecular biology and ecology. Students receive extensive instruction and hands-on experience in our modern laboratory facilities, and are encouraged in every way to develop their capacities for independent work. Bishop's University is located near a variety of habitats including bogs, lakes, rivers, mountains, marshes, hardwood forests and meadows. This variety means students can be hiking during one lab and canoeing the next. The rural setting of Bishop's combines the features of a biological field station with those of a well-equipped biology department, providing exceptional opportunities for field study and research in ecology and environmental biology. Those students interested in molecular biology and health sciences will benefit from the proximity of the Université de Sherbrooke. This French-language university provides an active nucleus of researchers in physiology, immunology, nuclear medicine, and microbiology. An ongoing collaboration between the Université de Sherbrooke and Bishop's provides our students (including unilingual Anglophones) with access to these researchers and their laboratories.

The Biology department offers both Bachelors of Science (B.Sc.) and Bachelors of Arts (B.A.) degrees. Students in either degree program choose between two concentrations: Health Science or Biodiversity and Ecology. Health Science is the best concentration for students interested in medical research, clinical medicine, or the allied health sciences (such as nursing or physiotherapy). Students interested in wildlife biology, plant science, and environmental biology choose the Biodiversity and Ecology concentration. Please note that the courses to be taken within each program are outlined in the nearby tables.

Please refer to the Natural Sciences Division page for information on Divisional Requirements.

## Programs

All Biology programs include core Biology courses, courses related to the chosen concentration, and, in the case of B.Sc. programs, basic science courses. All Bachelor degrees require 120 credits; thus, each student takes elective courses in addition to those required for their specific program.

## B.Sc. Biology Major ( 90 credits) MAJBIO

The B.Sc. programs are the best choice for students with a strong grounding in the core sciences (math, physics, and chemistry). Students graduating with a B.Sc. will be ready to enter graduate studies (M.Sc. or Ph.D) or professional schools (e.g. medicine, dentistry, physiotherapy, or veterinary medicine). See the nearby tables for the complete list of courses.

## B.Sc. Biology Honours (102 credits)

HONBIO
Highly motivated students may choose to pursue an honours degree, which requires additional Biology courses and thus fewer electives (see nearby tables). To qualify, students must: (1) maintain a cumulative average of at least $75 \%$; (2) receive a mark lower than $75 \%$ in no more than four credits ( 1 lecture and 1 laboratory course) in any 300 or 400 -level Biology or Biochemistry course; and (3) obtain a mark of $75 \%$ or higher in each BIO 492 and BIO 493.

## B.A. Biology Major ( 54 credits) MAJBIO

The B.A. Biology program is designed for students lacking a strong science background. This program has fewer required courses than the B.Sc. programs, so students may be able to complete the requirements of a second major within their 120 -credit degree. It is thus ideal for students interested in pursuing a double major (such as Biology and Psychology, or Biology and Political Science), and provides a solid grounding in the biological sciences. The B.A. Biology degree provides adequate preparation for some, but not all, professional and graduate programs. Students are advised to consult officials of the specific post-graduate institution of interest. Please see the nearby Tables for the complete list of courses required to complete this major.

## Pre-Medicine Double Major

MAJMED
Many of our students enrolled in the biology program are interested in going to medical school, and the BSc Biology (Health Sciences) program includes common prerequisites for application to medical schools in both Canada and the US. However, students should be aware that the entrance requirements can vary greatly between medical schools, and often change from year to year, therefore we recommend that students decide on which schools they are hoping to go to and then research what are the particular requirements of that school (the faculty can help you with this search). For those students unsure of where they would like to go and wishing to cover as wide a set of potential requirements as possible, BU also offers an inter-disciplinary Pre-Medicine double major, which specifically addresses these concerns. See the PreMedicine Double Major section for more details on how this program can be combined with a B.Sc. or B.A. Biology.

## Biology Minor (24 credits)

MINBIO
The biology minor consists of eight introductory courses in different areas of Biology. As illustrated in Table 2, seven of these courses are required and one is optional. This minor allows students majoring in a different field to obtain a perspective on modern biology.

## Table 1: The Health Science Concentration

## B.Sc. Biology (Health Sciences)*

## 1. Y1 Year

(All non-Quebec students; 30 cr)
BIO 196 Introduction to Cell \& Molecular Biology
CHM 191 General Chemistry I
CHM 192 General Chemistry II
PHY 193 Physics for the Life Sciences I
PHY 194 Physics for the Life Sciences II
MAT 198 Calculus I for Life Sciences
MAT 199 Calculus II for Life Sciences
ENG 116 Effective Writing (or other ENG)
Humanities option (CLA, ENG, HIS, REL, PHI or Lib. Arts)
Free elective: students may take any free elective or they may want to consider taking either BIO 207 Introduction to Evolution and Ecology or BIO233 Human Anatomy. Students who did not do well in BIO 196 should not take the above courses until their second year when they are better prepared.

## 2. Required Core Courses (21 cr)

BIO 201 Cellular and Molecular Biology
BIO 205 Diversity of Life 1
BIO 206 Diversity of Life 2
BIO 208 Genetics
BIO 336 Animal Physiology 1
CHM 111 Organic Chemistry
PHY 101 Statistical Methods
3. Required Concentration Courses ( $\mathbf{1 5} \mathrm{cr}$ ) BCH 313 Metabolism
BIO 337 Animal Physiology 2
BIO 352 Microbiology
OR BCH 383 Molecular Biology
BCH 210 General Biochemistry
PSY 101 Introductory Psychology
4. Concentration Options (21 cr)

Select any 7 courses from the far right column. At least 5 of these courses must be from Biology and at least one of these 7 courses must be either BIO 394 Biology and Cancer, BIO 411 Health Science Seminar, or BIO 428 Advanced Physiology.

## 5. Science Options ( 6 cr )

Select any 2 courses from the Division of Natural Sciences and Mathematics (including Biology). All courses must be eligible for science credit by science students (see individual course
descriptions). For students interested in medicine, PHY 206 Waves and Optics and CHM 211 Organic Chemistry II may be good choices as they are pre-requisites for some medical schools.

## 6. Free Options (27 cr)

Choose 9 courses from any division to complete your 120 -credit degree. These electives can be used to fulfill the requirements for a minor from a different department.

## B.Sc. Biology Honours <br> (Health Sciences)

In addition to requirements 1-5 above, students in the honours program must add the following 4 courses and reduce the free options by 12 credits ( 4 courses).
BIO 492 Honours Thesis I
BIO 493 Honours Thesis II
BIO 386 Scientific Writing
BIO 311 Quantitative Methods in Biology

## B.A. Biology (Health Sciences)*

## 1. Y1 Year

(All non-Quebec students; 30 cr)
BIO 196 Introduction to Cell \& Molecular Biology
ENG 116 Effective Writing (or other ENG)
Humanities option (CLA, ENG, HIS, REL, PHI or Lib. Arts)
7 free options
2. Required Core Courses ( $\mathbf{1 5} \mathrm{cr}$ )

BIO 201 Cellular \& Molecular Biology
BIO 205 Diversity of Life 1
BIO 206 Diversity of Life 2
BIO 208 Genetics
PHY 101 Statistical Methods

## 3. Required Concentration Courses ( $\mathbf{1 2} \mathbf{~ c r}$ )

BIO 233 Human Anatomy
PSY 101 Introductory Psychology
BIO336 Animal Physiology 1
BIO 337 Animal Physiology 2

## 4. Concentration Options ( $\mathbf{1 8} \mathbf{~ c r}$ )

Select any 6 courses from the far right column, a minimum of 5 must be from Biology

## 5. Free Options ( $\mathbf{4 5} \mathrm{cr}$ )

Choose 15 courses from any division to complete your 120-credit degree. Consider using these free options (along with the Y1 options, if applicable) to fulfill requirements for a second major.
Health Sciences Concentration

## Options* <br> BIO 207 Introduction to Evolution and Ecology

BIO 311 Quantitative Methods in Biology
BIO 315 Frontiers of Biology, From Past to Present
BIO 320 Programmed Cell Death
BIO 340 Comparative Anatomy
BIO 341 Population Genetics and Evolution
BIO 349 Medical and Forensic Entomology
BIO 359 Human Genetics
BIO 365 Developmental Biology
BIO 391 Experiential Learning in Health Sciences and Biochemistry
BIO 394 Biology of Cancer
BIO 411 Seminar in Health Sciences
BIO 428 Advanced Physiology
BCH 210 General Biochemistry
BCH 311 Proteins
BCH 312 Lipids and Membranes
BCH 381 Immunology
BCH 382 Environmental Biochemistry and Toxicology
BCH 383 Molecular Biology
BCH 422 Biotechnology
CHM 141 Analytical Chemistry
CHM 211 Organic Chemistry II
EXS 231 Nutrition for Sports and Exercise
EXS 317 Biomechanics of Human Movement
PBI 275 Health Psychology 1
PBI 288 Brain and Behavior 1
PBI 379 Neuropsychology
PBI 380 Psychopharmacology
PSY 213 Research Methods
PMA 360 Advanced Psychological Statistics
*Please note that many courses have associated labs, featuring the same course number and the BIL code, as indicated in the individual course descriptions. Lab credits do not count towards the total credit requirements of the program. The associated (co-requisite) lab must be completed to receive credit for the course.

## Table 2: The Biodiversity and Ecology Concentration

## B.Sc. Biology <br> (Biodiversity and Ecology)*

## 1. Y1 Year

(All non-Quebec students; 30 cr) BIO196 Intro. to Cell \& Molecular Biology
CHM 191 General Chemistry I
CHM 192 General Chemistry II
PHY 193 Physics for the Life Sciences I PHY 194 Physics for the Life Sciences II
MAT 198 Calculus I for Life Sciences
MAT 199 Calculus II for Life Sciences ENG 116 Effective Writing (or other ENG) Humanities option (CLA, ENG, HIS,REL, PHI or Lib. Arts)
Free elective: students may take any free elective or, they may want to consider taking BIO 207 Introduction to Evolution and Ecology. Students who did not do well in BIO 196 should not take the above course until their second year when they are better prepared.

## 2. Required Core Courses ( 21 cr )

BIO 201 Cellular and Molecular Biology
BIO 205 Diversity of Life 1
BIO 206 Diversity of Life 2
BIO 208 Genetics
BIO 336 Animal Physiology 1
CHM 111 Organic Chemistry
PHY 101 Statistical Methods
3. Required Concentration Courses ( 15 cr ) BIO 207 Intro. to Evolution and Ecology BIO 327 Advanced Ecology
BIO 338 Vertebrate Life 1 or BIO 339: Vertebrate Life 2
BIO 329 Invertebrate Biology
ESG127 Introduction to Physical Geography

## 4. Concentration Options (21 cr)

Select any 7 courses from the far right column, including a maximum of 2 nonBIO courses.
5. Science Options (6 cr)

Select any 2 courses from the Division of Natural Sciences and Mathematics (including Biology). All courses must be eligible for Science credit by science students (see individual course descriptions).
Students wishing to continue to graduate school may want to consider taking MAT 209 Linear Algebra, or MAT 310 Ordinary Differential Equations, as these will better prepare them for more advanced statistical courses later in their careers.
6. Free Options (27 cr)

Choose 9 courses from any division to complete your 120 -credit degree. These electives can be used to fulfill the requirements for a minor from a different department.

## B.Sc. Biology Honours (Biodiversity and Ecology)

In addition to requirements 1-5 above, add the following courses and reduce the free options by 12 cr (4 courses).
BIO 492 Honours Thesis I
BIO 493 Honours Thesis 2
BIO 386 Scientific Writing
BIO 311 Quantitative Methods in Biology

## B.A. Biology

## (Biodiversity and Ecology)*

## 1. Y1 Year

(All non-Quebec students; 30 cr )
BIO 196 Introduction to Cell \& Molecular Biology
ENG 116 Effective Writing (or other ENG)
Humanities option (CLA, ENG, HIS, REL, PHI or Lib. Arts)
7 free options
2. Required Core Courses ( $\mathbf{1 5} \mathbf{c r}$ )

BIO 201 Cellular \& molecular Biology
BIO 205 Diversity of Life 1
BIO 206 Diversity of Life 2
BIO 208 Genetics
PHY 101 Statistical Methods
3. Required Concentration Courses ( 12 cr )

BIO 207 Intro. to Evolution and Ecology
BIO 338 Vertebrate Life 1 or BIO 339 Vertebrate Life 2
BIO 329 Invertebrate Biology
ESG 127 Introduction to Physical Geography

## 4. Concentration Options ( 18 cr )

Select any 6 courses from the far right column, a minimum of 5 must be from Biology.

## 5. Free Options (45 cr)

Choose 15 courses from any division to complete your 120-credit degree. Consider using these free options (along with the Y1 options, if applicable) to fulfill requirements for a second major.

## Biodiversity and Ecology <br> Concentration Options

BIO 311 Quantitative Methods in Biology
BIO 315 Frontiers of Biology,
From Past to Present
BIO 327 Advanced Ecology
BIO 329 Invertebrate Biology
BIO 331 Freshwater Biology
BIO 332 Vertebrate Zoology
BIO 337 Animal Physiology 2
BIO 341 Population Genetics and Evolution
BIO 334 Epidemiology
BIO 338 Vertebrate Life 1
BIO 339 Vertebrate Life 2
BIO 340 Comparative Anatomy
BIO 349 Medical and Forensic Entomology
BIO 352 Microbiology
BIO 354 Insect Biodiversity
BIO 358 Animal Behaviour
BIO 386 Science Writing
BIO 392 Experiential Learning in Biodiversity \& Ecology
BIO 412 Seminars in Biodiversity \& Ecology
BCH 313 Metabolism
ESG 262 Introduction to GIS
ESG 250 Geomorphology
ENV 241 Environmental Chemistry I
ENV 242 Environmental Chemistry II
ENV 337 Economics of the Environment
ENV 375 Environmental Physics
ENV 475 Ecological Economics
Minor in Biology (24 credits)
BIO196 Intro. to Cell \&
Molecular Biology
BIO 201 Cellular \& Molecular Biology
BIO 205 Diversity of Life 1
BIO 206 Diversity of Life 2
BIO 207 Intro. to Evolution and Ecology BIO 208 Genetics
Any 2 additional Biology courses
*Please note that many courses have associated labs, featuring the same course number and the BIL code, as indicated in the individual course descriptions. Lab credits do not count towards the total credit requirements of the program. The associated (co-requisite) lab must be completed to receive credit for the course.

Note: A course can only count under one category. For instance, if you took BIO 338 as a required concentration course, it cannot be counted as one of your concentration options.

## List of Courses

PLEASE NOTE: The following list of courses represents those courses which are normally offered by the Department of Biological Sciences. However, some courses alternate and thus are only available every second year. Courses offered on an occasional basis are indicated with an asterisk (*). Students should plan their schedules in advance, in consultation with their Departmental Chair, to ensure that they register for all of the courses required for graduation.
BIO 111 Organic Gardening 3-3-0
This course is an introduction to organic and environment-friendly gardening, combining lectures and a hands-on-practicum. Principles of companionship, growth, water and mineral balance will be discussed. Students will learn how to recognize and treat diseases, pests or common physiological disorders with environmentally natural techniques. At the end of this course, students should be able to set-up and run a garden using environment-friendly techniques and know how to harvest, handle and store crops. Depending on the interests of the group, the course will either cover transformation strategies for year-long storage of vegetables grown in the summer (canning, freezing, fermentation, drying...), or make an introduction to entrepreneurship in organic farming (based on the instructor's own experience). In addition, several visits will be organized to locally run organic farms to present various models of environment-friendly productions of veggies, fruits and herbs.
Note: This course is open to the general public and may be taken by non-DNS students for science credit. However, students in any of the science majors may only take this course as a free elective, and may not count this course for science credit. It is offered in the spring semester.
BIO 131 The Human Body in Health and Disease 3-3-0 An introduction to human anatomy and physiology. This course will employ problem-based learning, virtual experiments, and traditional lectures to explain the relationship between the structure of the human body and its functions. These concepts will then be applied to the study of representative human diseases. This course is designed for students with minimal biology backgrounds, including arts students, teachers, coaches, and home-care workers. Students will acquire a working knowledge of human biology and the ability to communicate this knowledge to others.
Prerequisites: Secondary school Biology and/or Chemistry recommended
Note: This course cannot be taken for credit by students in Biology or Biochemistry or by students with credit for BIO 233
BIO 194 General Biology for the Social and Human Sciences 3-3-0
This course provides an introduction to biology for students without a strong science background. Topics include: Scientific method, chemistry of life, cell structure, cell metabolism, photosynthesis, origin of life, evolution, genetics, reproduction, diversity of life, ecology, and ecosystems. This course cannot be taken for credit by students in a B.Sc. program of B.A. Biology. It is not a sufficient prerequisite for more advanced Biology courses.
This course cannot be taken for credit by anyone who already has credit for collegial Biology NYA, BIO 191, BIO 193, BIO 196 or BIO 197.
BIO 196 Introduction to Cell \& Molecular Biology 3-3-0
Topics covered include: chemistry of life; structure and function of biomolecules; structure and organization of cells; structure and function of organelles, genetic replication and expression; gene mutation; cell signaling; regulation of the cell cycle. This course is intended for B.Sc. students and B.A. (Biology) students; other students are encouraged to take BIO 194.
Prerequisite: High School Biology and Chemistry
This course cannot be taken for credit by anyone who already has credit for collegial General Biology 2/00XU, BIO 191, BIO 193 or BIO 194.
Corequisite: BIL 196
$\begin{array}{ll}\text { BIL } 196 & \begin{array}{l}\text { Introduction to Cellular and } \\ \text { Molecular Biology Laboratory }\end{array}\end{array}$
1-0-3
Practical exercises in microscopy, molecular and cellular biology, and histology.
Prerequisites: High School Biology and Chemistry; Co-requisite: BIO 196

Topics in modern cell biology. Examines aspects of eukaryotic cell structure and function. Includes, but not restricted to, areas such as intracellular signaling, cell cycling and cancer, cell-matrix interactions, endo/exocytosis, protein targeting and organelle biogenesis.
Prerequisites: BIO 196 or collegial general Biology 2/00XU or BIO 194 with a mark of $75 \%$ or better
This course may not be taken for credit by anyone who already has credit for Biology 110.
BIO 205 Diversity of Life I 3-3-0
This course offers a thorough exploration of one branch of the tree of life, that occupied by multicellular animals. The course complements Diversity of Life II, a winter-term course with a focus on prokaryotic and non-animal eukaryotic life. The material in both courses is organized according to a modern phylogenetic framework. In this course students will learn about phylogenetic hypotheses and evidence, and they will study how classifications are created, tested, and, where necessary, rejected. Focusing on animals, we will discuss many of the morphological and physiological adaptations that have arisen. The evolutionary implications of some features, such as bilateral symmetry and the notochord, will be discussed more thoroughly. Recent advances as well as current contentious issues in animal classification will also be examined.
Prerequisite: BIO 194 or BIO 196; Co-requisite: BIL 205
Students with credit for BIO 115 cannot also receive credit for BIO 205.
BIL 205 Diversity of Life I Laboratory $\quad \mathbf{1 - 0 - 3}$
The classification, identification, morphology and biology of the animals considered in BIO 205.
Co-requisite: BIO 205
Students with credit for BIL 115 cannot also receive credit for BIL 205.
BIO 206 Diversity of Life II 3-3-0
Like its companion course BIO 205, this course explores the tree of life, but from a less animal-centric view. We study the prokaryotes at the root of the tree, responsible for more than half of the earth's biomass. Next, we examine the branch that contains all fungi (and lichens). The various protists and those algae that are not related to green plants form other branches, which we will also explore. Finally, we study in more detail the largest group of eukaryotes by biomass, the green plants. The material in this course (and in BIO 205) is organized according to a modern phylogenetic framework. The focus will be on diversity, function and ecological importance. In the case of the green plants, we look at the reasons for the tremendous ecological success of this form of life. We examine photosynthesis, transport, reproduction and life cycles, and evolution, empathizing ecological relevance.
Prerequisite: BIO 194 or BIO 205
BIO 207 Introduction to Evolution and Ecology 3-3-0 This course will start by looking at the development of modern evolutionary theory before exploring natural selection and speciation. This course will then explore some of the basic principles of ecology, including species interactions such as predation and competition, and how these interactions help structure the complex web of life that helps form ecological communities and ecosystems. Although intended for Biology majors, students from other programs may also take this course with the instructor's permission.
Prerequistie: BIO 205
This course cannot be taken for credit by anyone who already has credit for BIO 197.

BIO 208 Genetics 3-3-0
An introduction to the study of biologically inherited traits from three perspectives. (i) Mendelian Genetics: the rules of genetic transmission and heredity. (ii) Molecular Genetics: the biochemical and chromosomal basis of heredity. (iii) Population \& Evolutionary Genetics: the variation in genes amongst individuals and populations, heritability, and changes in genes over time.
Prerequisite: BIO 201; Co-requisite: BIL 208
Students with BIO 194 may enrol in this course with permission of the Chair of Students
Students with credit for BIO 118 cannot also receive credit for BIO 208.
BIL 208 Genetics Laboratory
1-0-3
Experiments in genetics designed to complement topics discussed in BIO 208. Co-requisite: BIO 208

BIO 211 Sustainable Organic Agriculture
The objective of this course is to introduce students to the concepts and techniques of organic gardening through an integrated and sustainable approach. Subjects covered will include, applied botany, basic soil chemistry, weed control, crop rotation, tillage, ecologically responsible use of fertilizers, and drainage and irrigation practices. The course includes lecture classes as well as practical handson activities in biology laboratory JOH 320, JOH greenhouse and the Biology outdoor garden, where students will be expected to apply some of the techniques discussed in class to real life situations.
Pre or Co requisites: BIO205 and BIO206 or with permission of the instructor if the student can demonstrate a suitable background knowledge of the necessary material. Co-requisite BIL211. This course may not be taken for credit by students who have already completed BIL111.

BIL 211 Sustainable Organic Agriculture Lab
1-0-3
This lab course requires students to work in small teams on a variety of projects around campus. Central to each project will be the integration of principles learned in the organic agriculture lecture. Examples of such projects might include; the development of an ecologically friendly butterfly garden; integrated plantings to minimize crop damage; design and installation of a bioswale system; or monitoring and control of entomological pests on campus. Students should be aware that most of these projects will involve outdoor field work which includes working in all weather conditions, getting bitten or stung by insects, and in general getting dirty. Co-requisite: BIO 208
BIO 233 Human Anatomy
3-3-0
The anatomy of all of the major body systems will be discussed in the context of human health and disease. This course is designed for students interested in the biomedical sciences or health education. Students will develop their understanding of human anatomy and will acquire the ability to communicate scientific concepts to their patients or students.
Prerequisite or Corequisite: BIO 196 or EXS 127
This course cannot be taken for credit by anyone who already has credit for BIO131, BIO 132, or BIO 133

BIO 311 Quantitative Methods in Biology 3-3-0
The main objective of this course is to teach how to use quantitative methods as a tool to answer practical problems in biological sciences. This course focuses on real life situations often encountered by scientists such as how to critically review studies, study design, and statistical output. This course will also cover the statistical and data management methods most often used in biological sciences. Prerequisite: BIO208 and PHY 101

## BIO 315 Frontiers of Biology, From Past to Present <br> 3-3-0

This course is for upper year biology students who already have a good understanding of complex concepts like human DNA sequencing, genomics, cell biology, and human anatomy and physiology. Topics covered include the history of genetics and human evolution, cell theory, chromosomes, mitosis and meiosis, human fertilization and heredity, recent advances in pharmacogenomics, genetic selection, and the CRISPR technology for DNA editing. The goal of this course is to broaden student's understanding on the development and acceptance of such discoveries and to ultimately understand that what they learnt in their first 2 or 3 years in biology is knowledge built from several non-linear steps that will likely go on evolving and developing in future years.
Prerequisites: BIO 205 and BIO 208
Students with credit for BIO 319 cannot receive credit for BIO 315.

## BIO 320 Programmed Cell Death

3-3-0
Programmed cell death, also called apoptosis, is a normal physiological process that takes place in every type of cell in the animal kingdom. It plays a critical role in embryo development, in selective processes (immune system), in degenerative diseases and in cancer. Since the early 90 's, programed cell death is one of the fastest growing subject of research, with almost 15000 scientific publications in 2004. In this course, we will explore normal and impaired mechanisms involved in cell death, through examples taken in human medicine or in invertebrates' development.
Prerequisite: BIO 201
BIO 327 Advanced Ecology
3-3-0
Ecology is about finding the best data/modelling to test your theories and hypotheses. Great ideas, hiking boots and computers are all that are needed. This ecology course focuses on understanding the relationships between organisms and the strategies they use to survive, reproduce, and interact with their environment. This course will expand on the fundamental theories of ecology seen in BIO 207 with the application to real life data and analysis. Prerequisite: BIO 207
Students with credit for BIO 217 cannot receive credit for BIO 327.

BIO 329 Invertebrate Biology 3-3-0
Morphology, physiology, embryology, evolution and classification of invertebrate animals.
Prerequisite: BIO 205; Co-requisite: BIL 329
Students with credit for BIO 248 cannot also receive credit for BIO 329.
BIL 329 Invertebrate Biology Laboratory $\mathbf{1 - 0 - 3}$
The classification, identification, morphology and biology of the animals considered in BIO 329.
Co-requisite: BIO 329
Students with credit for BIL 248 cannot also receive credit for BIL 329.
BIO 331* Freshwater Biology
3-3-0
This course will expose students to the biological importance and diversity of freshwater systems. Class material will look at both the biotic and abiotic components of aquatic systems as well as their interactions.
Prerequisite or Co-requisite: BIO 205; BIO 207; Co-requisite: BIL 331
BIL 331* Freshwater Biology Lab
1-3-0
The lab section will focus on the different techniques necessary for sampling both lentic and lotic systems. Emphasis will be placed on practical first-hand experience using the appropriate equipment in the field. The process of data collection will culminate in the students performing a mini-research project on a local aquatic system of their choice and presenting these data to their peers.
Prerequisite or Co-requisite: BIO 205; BIO 207; Co-requisite: BIO 331
BIO 334* Epidemiology 3-3-0
Epidemiology is the study of the distribution and determinants of diseases and health conditions among populations and the application of that study to control health problems. Concepts learned in this course will be applied to current health issues from different perspectives, such as pharma-economy, health care management, disease avoidance and food production.
Prerequisite: BIO 201 and BIO 208
BIO 336 Animal Physiology I
3-3-0
Basic mechanisms of homeostatic regulation. Topics include: Cell physiology, Nervous system, Muscular system, and the Cardiovascular system.
Prerequisite: BIO 201
Students who have received credit for BIO 226 cannot also receive credit for BIO 336.
BIO 337 Animal Physiology II 3-3-0
Mechanisms of functional operation of animal organisms. Topics include: renal, respiratory, gastrointestinal, and reproductive function.
Prerequisite: BIO 208 and BIO 336; Co-requisite: BIL 337
Students who have received credit for BIO 228 cannot also receive credit for BIO 337.
BIL 337 Animal Physiology II Laboratory $\quad \mathbf{1 - 0 - 3}$ Experiments dealing with different aspects of animal physiology. Some experiments will be performed using computer simulations.
Co-requisite: BIO 337
Students who have received credit for BIL 228 cannot also receive credit for BIL 337.

## BIO 338

Vertebrate Life I:
An Introduction to Ichthyology and Herpetology 3-3-0
This course is the first of two exploring those animals with a cartilaginous or bony backbone, the vertebrates. Given their great diversity, two courses have been devoted to this group, Vertebrate Life $1 \& 2$; this is the first of those courses. Vertebrate Life 1 will focus on the fishes, amphibians, and reptiles and is divided into two sections. The first section will explore the evolution of the earliest vertebrates and the myriad of types that we generally refer to as fishes. Part two of the course will look at the colonization of land by the first tetrapods and the rise of the amniotes and will explore the extant groups of amphibians and reptiles. Students may not receive credit for this courses if they have already taken BIO 332 and BIO 367
Prerequisites: BIO 205 and BIO 207
BIL 338 Vertebrate Life I Lab
1-0-3
This is the co-requisite lab for BIO 338 Vertebrate Life I and will focus on practical field and laboratory techniques useful to working in Ichthyology and Herpetology Co-requisite: BIO 338

## BIO 339 Vertebrate Life II:

An Introduction to Ornithology and Mammalogy 3-3-0
This course is the second of the series focusing on the evolutionary history and diversity of the vertebrates and will focus on the mammals and birds. From the tiniest hummingbird to the mightiest whale, these two vertebrate groups represent separate evolutionary branches from within the amniote family tree. The course will start by looking at the ancestors of each group, before exploring their evolutionary diversification, and how these distantly related groups have solved similar evolutionary problems. Vertebrate Zoology II may be taken without previously taking Vertebrate Zoology I.
Co-requisite: BIL 339
Prerequisites: BIO 205 and BIO 207
Students may not receive credit for this course if they have already taken BIO 332
BIL 339 Vertebrate Life II Lab
1-0-3
This is the co-requisite lab to the BIO 339 Vertebrate Life II. This course will help students develop basic skills in the identification of most of the common vertebrates in the region. Although focusing primarily on the subject matter of the co-requisite lecture, BIO 339 birds and mammals, all vertebrate groups will be explored including fishes, amphibians, and reptiles.
Co-requisite: BIO 339
Prerequisites: BIO 205 and BIO 207
Students may not receive credit for this course if they have already taken BIL 332
BIO 340* Comparative Vertebrate Anatomy 3-3-0
This course will use a comparative approach to help students understand vertebrate anatomy. Students will explore the evolution of major organ systems within the vertebrates, using both dissection and preserved material. Students should be prepared to both take lecture notes and dissect specimens every class.
Prerequisites: BIO 205
BIO 341 Population Genetics and Evolution
3-3-0
Understanding the processes by which selection and genetic variation allows species to adapt and evolve is an important aspect of biology. This course uses a wide spectrum of examples from animal and plant populations to outline the general principles in population and quantitative genetics that will then be applied to important issues in health sciences.
Prerequisites: BIO 208 and PHY 101

## BIO 349 Medical and Forensic Entomology

3-3-0
As one of the most important group of disease vectors, insects and other arthropods are involved in the transmission of numerous pathogens causing diseases such as the plague, malaria, West Nile fever, scabies, and Lyme disease. This course will introduce students to some of the basic concepts of medical entomology with a focus on selected diseases. Information on the life cycles of insect vectors and the pathogens they carry is presented, as well as symptoms, treatment and geographical distribution of selected arthropod-borne diseases. The relevance of entomological evidence in criminal investigations (such as the use of insects to determine post-mortem interval is also discussed.
Prerequisite BIO 205

## BIO 352 Microbiology

1-0-3
An introduction to prokaryotic microorganisms, eukaryotic microorganisms, and viruses; their ecology, growth characteristics, and host interactions. Examination of the environmental roles of microbes as well as their impact on the human world. Prerequisite: BIO 201 and BIO 208; Co-requisite: BIL 352
BIL 352 Microbiology Laboratory
1-0-3
An introduction to common microbiological techniques used in medical, biological and biochemical research, including techniques in growth, staining and identification of bacteria and viruses. As well, the diversity of physiological and metabolic requirements of bacteria will be examined.
Co-requisite: BIO 352
BIO 354 Insect Biodiversity
3-3-0
The main goal of this course is to teach the students how to collect, preserve and identify insects, especially those found in eastern North America. In addition to using material housed in the Bishop's insect collection, material collected in the field by each student will be prepared in a fashion that will make the specimens museum worthy. Through the collecting and identification process, students will learn about insect taxonomy but they will also learn about where different taxa can be found and what their general ecological requirements are. Once they have completed the course, students should be able to identify most commonly encountered insects at least to the family level and recognize those that are beneficial or potentially harmful.
Prerequisite: BIO 205

The study of animal behaviour represents the oldest known form of biological study. Even from our earliest beginnings, humans had an intense interest in understanding how animals behave. This interest is still evident from our almost instinctive need to share our homes with various pets. This course will build on this most basic need to watch and understand animal behaviour, but will do so from a more scientific approach.
Prerequisite: BIO 205, BIO 207 and BIO 311
BIL 358
Animal Behaviour Lab
1-0-3
This course is the co-requisite lab for BIO 358: Animal Behaviour. During the semester students will be expected to design and implement a series of animal behaviour experiments, culminating in a final project that they will then present to their peers in the form of a final scientific paper and oral presentation.
Co-requisite: BIO 358
BIO 359 Human Genetics
3-3-0
Cytogenetics, biochemical genetics, Mendelian genetics, molecular genetics and quantitative genetics of humans; chromosome mapping; genetics and medicine. Prerequisite: BIO 208
BIO 365 Developmental Biology
3-3-0
Examination of the molecular events involved in the development of vertebrates, invertebrates and plants, emphasizing common strategies used in these three systems. Topics will include establishment of body axes, origin of germ layers, and segmental pattern formation. The role of developmental genes, regulatory gene families, and maternal effect genes will be emphasized. Morphogenesis and early cell differentiation will also be studied.
Prerequisite: BIO 208 and BIO 201
BIO 386 Scientific Writing
3-3-0
Lectures will introduce the scientific method and train students to critically read the scientific literature. Detailed examples of a written paper will then follow with step-bystep instructions. Data analysis, word processing and citation methods will be reviewed. In addition to written manuscripts, poster and oral presentations will be discussed.
Prerequisite: This course is normally open to Y3 or Y4 students by permission of departmental chair or instructor only.
Students with credit for BIO 272 cannot also receive credit for BIO 386.
BIO 391 Experiential Learning in
Health Sciences and Biochemistry
3-3-0
Students in the Health Science or Biochemistry program may receive credit for working under the tutelage of a mentor in a field directly related to their area of study. Students must secure both an internal supervisor (a fulltime faculty member) and a suitable mentor (i.e. external supervisor who will supervise the day to day activities of the student). Students must be actively involved in the daily work and should not be acting as menial labor.
Assessment of the student will be based largely on a mark assigned by the mentor directly responsible for the student and the submission of a journal outlining the daily objectives and actual work itself. Projects may be intensive in nature (i.e. 3 weeks during the summer), or may be more drawn out (i.e. 6-8 hours every week during the semester).
This course is only eligible to students in good standing and if available positions are available. Students may not work for salary and may not work concurrently in an area directly related to their honors project.
Note: Students may only take one experiential learning course for credit (i.e. BIO 391 or BIO 392 or ELP 300).
Coordinator: Professor Savage
BIO 392 Experiential Learning in Biodiversity \& Ecology 3-3-0
Students in the Biodiversity \& Ecology program may receive credit for working under the tutelage of a mentor in a field directly related to their area of study. Students must secure both an internal supervisor (a fulltime faculty member) and a suitable mentor (i.e. external supervisor who will supervise the day to day activities of the student). / Students must be actively involved in the daily work and should not be acting as menial labor.
Assessment of the student will be based largely on a mark assigned by the mentor directly responsible for the student and the submission of a journal outlining the daily objectives and actual work itself. Projects may be intensive in nature (i.e. 3 weeks during the summer), or may be more drawn out (i.e. 6-8 hours every week during the semester).
This course is only eligible to students in good standing and if available positions are available. Students may not work for salary and may not work concurrently in an area directly related to their honors project.
Note: Students may only take one experiential learning course for credit (i.e. BIO 391, or BIO 392 or ELP 300).
Coordinator: Professor Savage

BIO 394 Biology of Cancer
3-3-0
This course will review the broad subject of cancer development and treatment. In particular it will focus on taking concepts seen in cell biology and applying them to cancer cells. Among the topics reviewed will be: cancer types and staging, mutation rates and environmental contributions to genetic changes, oncogenes and tumor suppressors, cell proliferation/death balance, modification of cancer cells phenotypes and metastases formation, role of the immune system in the prevention of cancer spreading, strategies of cure, and a review of the body's physiological responses to several forms of cancer.
Prerequisites: BIO 336 AND BIO 201
Offered in odd-numbered winters
Students with credit for BIO 224 cannot receive credit for BIO 394

## BIO 411 Seminars in Health Sciences 3-3-0

An advanced course discussing current topics in the Health Sciences. Students will be expected to critically evaluate recent scientific literature, prepare and deliver oral and written presentations, participate in discussions, and analyze research questions.
Pre-requisites: BIO 208 AND BIO 336
Restricted to students in year 3 or 4 (i.e. with less than 60 credits remaining of a B.Sc. Biology degree)

BIO 412* Seminars in Biodiversity \& Ecology 3-3-0
This course will discuss recent developments in specific areas of ecology, conservation, and/or zoology. The course content will vary from year to year, depending on the instructor's area of expertise and the students' interests.
Prerequisite: BIO 205, BIO 207
Students with credit for BIO 362 cannot also receive credit for BIO 412.

## BIO 421 Independent Studies in Biology I

3-1-3
This course is intended for final-year students who wish to pursue in-depth study of a particular area of biology or who have a special need for a biology course that would otherwise not be available during their final semester of course work. This course can only be done in close collaboration with a faculty advisor from within the Department of Biological Sciences, and may not be used as a supplement to a student's honours project. Requirements for this course will be agreed upon by a committee of professors from within the Department of Biological Sciences.
Pre-requisite: Permission of the committee
Students with credit for BIO 371 cannot also receive credit for BIO 421.
Coordinator: Professor Chamoux
BIO 422 Independent Studies in Biology II 3-1-3
This course represents an additional semester of independent work, either a continuation of or a separate course from BIO 421, meant for final-year students who wish to pursue in-depth study of a particular area of biology or who have a special need for a biology course that would otherwise not be available during their final semester of course work. This course can only be done in close collaboration with a faculty advisor from within the Department of Biological Sciences, and may not be used as a supplement to a student's honours project. Requirements for this course will be agreed upon by a committee of professors from within the Department of Biological Sciences.
Pre-requisite: Permission of the committee
Students with credit for BIO 372 cannot also receive credit for BIO 422.
Coordinator: Professor Chamoux

## BIO 428 Advanced Physiology

This course will examine how animals adapt to environmental stresses such as extremes of temperature of altitude, hypoxia, water limitation and dietary changes. Short-term (acute), medium-term (acclimatory) and chronic (evolutionary) adaptations will be discussed.
Pre-requisite: BIO 336; Pre-or Co-requisite: BIO 337
Offered in even-numbered winters
Students with credit for BIO 328 cannot also receive credit for BIO 428.

## BIO 433 Advanced Exercise Science 3-3-0

This course examines selected topics in Exercise Physiology. Through traditional lectures, directed readings, seminars, and case studies, students will study short-term and long-term adaptations to exercise. We will also examine the scientific principles underlying sports-related topics such as optimizing exercise performance, injuries, and injury repair.
Prerequisite: BIO 336 or EXS 327
Students with credit for BIO 333 cannot also receive credit for BIO 433.
Note: See Exercise Science 433. Students may not take this course for credit if they have received credit for EXS 433.

BIO 434 Teaching Assistant Internship in Biology
3-3-0
Students enrolled in BIO 434 will work closely with a faculty member to work as a teaching assistant in a specific biology course they have already completed. Students will be expected to devote an average of 6-9 hours a week divided between deepening their knowledge of a specific field in biology, interacting with the students enrolled in the course, attending lectures on best practices in teaching biology, and maintaining a detailed journal of their work. This course should not be viewed as simply an unpaid TA for credit but rather as an opportunity to expand their knowledge of a specific biological discipline in their field of interest, and to learn about how best to help other undergraduates learn this material. Because this course requires a close working relationship with a teacher, students may only register by permission of the faculty teaching the course.
BIO 492 Honours Research Project I 3-1-6 An introduction to the planning, execution and reporting of biological research offered to students matching eligibility criteria. Each student is required to choose a research problem and, in consultation with a departmentally approved supervisor, draw up a formal research proposal of work to be undertaken. The final mark in this course will be based on the research proposal, preliminary research completed on the stated project, and presentation of a poster during the final week of classes. Satisfactory completion of BIO 492 with a minimum mark of $75 \%$, with a minimal score of $70 \%$ in each graded component, is required for enrolment in BIO 493.
Prerequisite: Permission of committee
Co-requisite or prerequisite: BIO 386
Students with credit for BIO 421 cannot also receive credit for BIO 492.
BIO 493 Honours Research Project II
3-1-6
A continuation of BIO 492 offered to students matching eligibility criteria. The student will complete all research as outlined in the research proposal. The final mark in this course will be based on the quality and amount of research completed, presentation of a departmental seminar during the final week of classes, open to the public, based on research findings, and submission of a final written honours thesis. Enrolment in BIO 493 is conditional upon completing BIO 493 with a minimum mark of $75 \%$. Satisfactory component, is required to complete the Honours program.
Prerequisite: Permission of committee
Students with credit for BIO 422 cannot also receive credit for BIO 493.

# Chemistry and Brewing Science 

Faculty

## Mihai Scarlete,

 Ph.D. (McGill), Ph.D. (Politehina Inst., Bucharest); ProfessorChair of the Department
Dale Wood,
B.Sc., Ph.D. (UNB);

Associate Professor

## Program Overview

The Chemistry Department offers three distinct programs Chemistry Honours, Chemistry Major, and Chemistry Minor. All of our programs provide students with a balanced, rich, and practical education in all sub-disciplines of Chemistry (Analytical, Biochemical, Inorganic, Organic, and Physical) and students graduating with a Chemistry degree from Bishop's University have had an excellent record of being admitted to graduate schools and professional programs (Medicine, Dentistry, Pharmacy, Education, etc.) or in finding employment in their field.

Class sizes in chemistry courses are small, which promotes close personal interaction between members of the faculty and students. The faculty are also directly involved in all undergraduate laboratories, which enhances personal contact and results in a friendly and very productive learning in experimental chemistry.

The Chemistry Department has an excellent set of modern instruments, such as a 400 MHz NMR and a GC/MS, which are used by undergraduates in their laboratory courses and in research projects. This is in contrast to most universities where many instruments are reserved for graduate students. Hands-on, extensive training on this modern instrumentation and equipment greatly benefits our students and ensures that they are very well prepared for graduate studies or future employment.

## Undergraduate Programs

It is strongly recommended that students enrolled in Department of Chemistry programs follow the order of courses outlined in the tables below. Some Chemistry courses are offered on two-year rotations, so failure to follow the suggested course sequence may result in students not being able to fulfill their degree requirements in the normal time frame.

## Table 1. First year of study in the 4-year Chemistry Honours and Major programs

Fall Semester
CHM 191 and CHL 191
BIO 196 and BIL 196
PHY 191 and PHL 191
MAT 191
ELA 116

## Winter Semester

CHM 192 and CHL 192
PHY 192 and PHL 192
MAT 192
Humanities Option
Humanities Option

## Chemistry Honours (84 credits) HONCHE

The Chemistry Honours program fulfills the academic requirements for membership in the Chemical Institute of Canada and for accreditation by l'Ordre des chimistes du Québec. (For membership in the latter, it is necessary to possess a working knowledge of the French language.) The Chemistry Honours program is a four-year program that prepares a student for graduate studies in chemistry, as well as for direct professional employment. The program requires 37 three-credit one-semester courses, one 3-credit full year course, and a full year, 6-credit research project in the final year for a total of 120 course credits. In addition, students must also complete the 15 co-requisite lab courses. The Chemistry Honours degree program is shown in Table 2.

## Entrance Requirements for Honours

To be eligible to enter the third year of the Honours Chemistry program, a student must achieve a minimum average of $70 \%$ in the required second year Chemistry courses (CHM 111, CHM 211, CHM 121, CHM 131, CHM 141, CHM 341 and all corequisite labs). To be eligible to enter the final year of the Honours Chemistry program, a student must achieve a minimum average of $70 \%$ in the third year required Chemistry courses (CHM 311, CHM 225 or CHM 245, CHM 231 or CHM 331 and all corequisite labs).

Table 2. Honours Chemistry Program ${ }^{1}$

Fall Semester
Year 2 CHM 111 and CHL 111
CHM 121
CHM 141 and CHL 141
BIO 201
Option ${ }^{2}$
Year 3 CHM 311
CHM 231 and CHL $231^{3}$
Science option ${ }^{4}$
Option ${ }^{2}$
Option ${ }^{2}$
Year 4 CHM 331 / CHL $331^{3}$
CHM $471^{7}$
CHM $499^{8}$
BIO $386^{9}$
Option ${ }^{2}$

## Winter Semester

CHM 211 and CHL 211
CHM 131
CHM 341 and CHL 341
BCH 210
Option ${ }^{2}$

Chem. Option ${ }^{5}$
CHM 225 and CHL 2256
BCH 313 and BCL 313
Option ${ }^{2}$
Option ${ }^{2}$
CHM 245 and CHL $245^{6}$ CHM $471^{7}$ CHM $499^{8}$
Option ${ }^{2}$ Option ${ }^{2}$
${ }^{1}$ All Chemistry students must take any two Humanities lecture courses in the first year. Students with a D.E.C. may be credited with these options.
${ }^{2}$ Chemistry Honours students must take one lecture course from the Humanities or the Social Sciences and one science option and two lecture courses from any of the Sciences. All other options are free electives. If a course has a co-requisite lab then the lab must be taken as well.
${ }^{3}$ CHM231 / CHM331 and their co-requisite labs are offered on a rotating basis, so the order in which they are taken may flip depending on the year the student entered the program.
${ }^{5}$ Students doing honours are encouraged to take a science option based on the field of their specialization:
Physical chemistry: MAT 108 or PHY 206 or MAT 206
Analytical chemistry: MAT 103 or MAT 310
Organic chemistry: BCH 311 or BIO 208
Environment: MAT 103
${ }^{5}$ Students registered in the honours program will have to complete a CHM 400 level course in the field of their honours research project as an independent study.
${ }^{6}$ CHM 225 and CHM 245, and their co-requisite labs are offered on a rotating basis, so the order in which they are taken may flip depending on the year the student entered the program.
${ }^{7}$ CHM 471 is a full-year, 3-credit course.
${ }^{8}$ CHM 499 is a full-year, 6-credit research project.
${ }^{9}$ Honours students should register in BIO 386 - Scientific writing. Permission from the instructor is required. If denied, this course can be replaced by a free elective.

## Chemistry Major ( $\mathbf{7 2}$ credits) MAJCHE

The Chemistry Major program prepares students for industrial or other employment that requires an extensive knowledge of chemistry. The program has sufficient flexibility to allow students to obtain a second major or a minor in another academic discipline. The program fulfills the academic requirements for membership in the Chemical Institute of Canada and for accreditation by l'Ordre des Chimistes du Québec. (For membership in the latter, it is necessary to possess a working knowledge of the French language.) The four-year Chemistry Major program requires 39 three-credit one-semester courses and one 3-credit full year course for a total of 120 course credits. In addition, students must complete the 18 co-requisite lab courses. The Chemistry Major degree program is shown in Table 3. Students in a minor program in another division may, with permission of the Department, reduce science options to a minimum of 9 credits.

Table 3. Chemistry Major Program1

Fall Semester
Year 2 CHM 111 and CHL 111
CHM 121
CHM 141 and CHL 141
BIO 201
Option ${ }^{2}$

## Winter Semester

CHM 211 and CHL 211
CHM 341 and CHL 341
BCH 210
CHM 131
Option ${ }^{2}$
Year 3 CHM 231 and CHL $231^{3}$
CHM 311
Option ${ }^{2}$
Option ${ }^{2}$
Option ${ }^{2}$
Year 4 CHM 331 and CHL $331^{3}$ CHM $371^{5}$
Option ${ }^{2}$
Option ${ }^{2}$ Option ${ }^{2} \quad$ Option $^{2}$
${ }^{1}$ All Chemistry students must take any two Humanities lecture courses in their first year of study. Students with a D.E.C. may be credited with these options.
${ }^{2}$ Students must take one course from either the Humanities or the Social Sciences and six lecture courses from any of the Sciences. All other options are free electives. If a course has a co-requisite lab then the lab must be taken as well. Students must take one 400 level chemistry course and any co-requisite lab in the third or fourth year.
${ }^{3}$ CHM 231 and CHM 331, and their co-requisite labs are offered on a rotating basis, so the order in which they are taken may flip depending on the year the student entered the program.
${ }^{4}$ CHM 225 and CHM 245, and their co-requisite labs are offered on a rotating basis, so the order in which they are taken may flip depending on the year the student entered the program.
${ }^{5}$ CHM 371 is a full-year, 3-credit course.

## Chemistry Minor (24 credits)

A Chemistry Minor will be awarded for the completion of CHM 111, CHM 211, CHM 121, CHM 131, CHM 141, and their co-requisite labs, together with 3 one-semester 3-credit courses (and their co-requisite labs) chosen from CHM 311, CHM 411, CHM 231, CHM 331, CHM 341, BCH 210 or BCH 313. Students taking a Chemistry Minor have a one-lecture course (3 credits) reduction towards the credits necessary for their degree.

## Recommended Electives

MAT 108, MAT 206 and PHY 206 are recommended electives for students pursuing a career in Physical Chemistry.
MAT 103, MAT 310 and PHY 206 are recommended electives for students pursuing a career in Analytical Chemistry.
BCH 311 and BIO 208 are recommended electives for students pursuing a career in Organic Chemistry.
MAT 103 is a recommended elective for students pursuing a career in Environmental Chemistry.

## Accreditation by l'Ordre des Chimistes du Quebec and the Canadian Institute for Chemistry

The OCQ and CIC are professional orders that oversee and accredit Chemistry, Biochemistry, and related disciplines in Quebec and Canada respectively. In order to meet the accreditation standards of these orders, a student must meet the following criteria.

## L'Ordre des Chimistes du Québec

A student must earn a minimum of 55 credits in Chemistry, of which 18 credits must be for laboratory work and 30 credits must be for lecture courses. The OCQ considers 3 credits of course or lab work to be the equivalent of 45 hours of class time and personal work ( 3 course credits in Chemistry at Bishop's is 36 hours of class time) and 1 credit of laboratory work to be the equivalent of 45 hours of lab time ( 1 lab-credit in Chemistry at Bishop's is $40-50$ hours and thus is equivalent to 3 credits for the OCQ). The chemistry credits offered at Bishop's are divided in the following manner.

1. 9 course credits and 2 lab credits of physical chemistry.
2. 9 course credits and 3 lab credits of analytical chemistry.
3. 9 course credits and 2 lab credits of organic chemistry.
4. 6 course credits and 1 lab credit of inorganic chemistry.
5. 6 course credits and 1 lab credit of biochemistry.
6. 3 course credits on scientific writing.
7. 3 course credits as advanced option in any field of chemistry.

## Canadian Institute for Chemistry

The CIC expects a program to involve a total of about 1000 hours of laboratory and classroom work in chemistry, with the minimum hours of each being about 400 . The laboratory hours should be distributed in such a way that every student is exposed to meaningful laboratory experience in at least four (and preferably five) of the five sub-disciplines (analytical chemistry, biochemistry, inorganic, organic and physical chemistry).

The core program beyond the first-year level shall include the equivalent of 12 chemistry courses including at least one in each of the five sub-disciplines of chemistry. In addition, there should be a selection of advanced offerings in the core disciplines and in other subjects such as for instance theoretical chemistry, solid state chemistry, natural products, polymers, advanced instrumentation, research thesis, etc. to bring the total number of hours of instruction to that described above. The program must also include at least 15 course credits in two or more of mathematics (algebra, calculus, statistics), physics, computer science and biology. In the case of pure chemistry programs, at least 6 credits in each of calculus and physics will be required. The inclusion of other cognate subjects as well as some liberal arts requirements is to be encouraged.

## List of Chemistry Courses

## General Chemistry

CHM 191 General Chemistry I 3-3-0
A course for students lacking Collegial Chemistry NYA or its equivalent.
Atoms, molecules, and ions. Chemical formulae and equations. Thermochemistry. Electronic structure of atoms. Periodic Table and properties of elements. Chemical bonds. Physical properties and structure. Chemical kinetics
Co-requisite: CHL 191
CHL 191 Introductory Chemistry Laboratory I
1-0-4
A series of experiments in Introductory Chemistry to complement Chemistry 191 which must be taken concurrently.
Co-requisite: CHM 191
CHM 192 General Chemistry II $\quad$ 3-3-0
A course for students lacking Collegial Chemistry NYB or its equivalent. Solutions. Chemical equilibrium. Acids and Bases. Gases, Solids, and Liquids. Ionic equilibria.
Prerequisites: CHM 191 (or permission of instructor) or Collegial Chemistry
Co-requisite: CHL 192
CHL 192 Introductory Chemistry Laboratory II 1-0-4
A series of experiments in Introductory Chemistry to complement CHM 192 which must be taken concurrently.
Co-requisite: CHM 192

## Organic Chemistry

CHM 111 Organic Chemistry I: Introductory 3-3-0
An introductory structural survey of the most commonly encountered organic functional groups that are present in carbon compounds, emphasizing their significance in biologically important molecules (lipids, carbohydrates, amino acids, proteins, steroids, and other types of natural products). Stereochemistry and the fundamental principles behind essential organic reaction mechanisms will be stressed throughout. Some basic definitions and nomenclature will be introduced. Prerequisites: CHM 191 and CHM 192 or Collegial Chemistry NYA and NYB
Co-requisite: CHL 111

CHL 111 Organic Chemistry Laboratory I
1-0-4
Experiments in the separation and purification of organic compounds including the use of chromatography. Introduction to functional group analysis and organic synthesis.
Co-requisite: CHM 111

## CHM 211 Organic Chemistry II: Introductory 3-3-0

This course is a continuation of Chemistry 105 and will elaborate upon the chemistry of the organic functional groups and their involvement in organic synthesis, emphasizing the importance of electronic factors (resonance, induction, acidity, electrophiles, nucleophiles, leaving groups, and carbenium ions) in influencing organic reaction mechanisms. Spectroscopic analysis (NMR,IR) and the importance of molecular obritals are introduced briefly.
Prerequisite: CHM 111 or Collegial Chemistry BFB
Co-requisite: CHL 211
CHL 211 Organic Chemistry Laboratory II
1-0-4
Further experiments in organic synthesis and in chromatographic separations. An introduction to multi-step synthesis.
Co-requisite: CHM 211.
CHM 311 Organic Chemistry III 3-3-0
A more advanced discussion of organic reaction mechanisms; stereochemistry and conformational analysis; molecular rearrangements; pericyclic reactions; oxidations; tautomerism.
Pre-requisite: CHM 111 and CHM 211
CHL 311 Organic Chemistry Laboratory III 1-0-4
Laboratory and spectroscopic techniques used in the synthesis, separation, and purification of simple organic compounds.
CHM 411 Organic Chemistry IV 3-3-0
The importance of electrophiles, nucleophiles, leaving groups, eliminations and dehydrations in the chemistry and reaction mechanisms of organosilicon, carbonyl, and biologically-important compounds.
Pre-requisite: CHM 311.
CHL 300 Advanced Methods in Organic Chemistry
1-0-4
Advanced laboratory techniques as applied to multistep syntheses and natural product isolation.
Pre-requisite: CHL 211 and CHL 111

## Inorganic Chemistry

CHM 121 Inorganic Chemistry I 3-3-0
The principles of nuclear, atomic, metallic, ionic, molecular structure. Valence bond and molecular orbital theory. Molecular and orbital symmetry.
Prerequisites: CHM 191 and CHM 192 or Collegial Chemistry NYA and NYB
CHM 225 Inorganic Chemistry II 3-3-0
This course provides students with a survey of inorganic chemistry. The course begins with the general chemistry of the inorganic elements (properties, oxidation states, introduction to their chemistry). This is followed up with two distinct sections. 1) Transition Metal Chemistry will look at crystal and ligand field theory, Werner complexes, and introduce organometallic complexes. 2) Main Group Chemistry will look at the structure and bonding of a selection of compounds from each group of the p-block.
Pre-requisites: CHM 121, CHM 111 / CHL 111
Co-requisites: CHL 225
CHL 225 Inorganic Chemistry II Lab $\mathbf{1 - 0 - 4}$
This lab is comprised of experiments that provide an illustration of many of the topics covered in CHM 225. It combines experimental methods typical of inorganic chemistry (e.g. inert atmosphere) with the use of the instrumentation necessary to probed the properties of interest (e.g. FT-IR, UV-Vis, Magnetochemistry
Co-requisites: CHM 225
CHM 421 Advanced Inorganic Chemistry 3-3-0
Selected topics in inorganic chemistry covering all aspects of inorganic chemistry from the alkali metals to the noble gases.
Pre-requisite: CHM 225

## Physical Chemistry

CHM 131 Physical Chemistry I 3-3-0
Ideal and real gases; chemical kinetics and mechanism; an introduction to thermodynamics and chemical equilibrium; ionic equilibria and electrochemistry. This course may be taken online by students who are not registered in a Bishop's Chemistry Program, subject to approval by the instructor.
Prerequisites: CHM 191, CHM 192, MAT 191, MAT 192, PHY 191, and PHY 192 or Collegial Chemistry NYA and NYB, Math NYA and NYB, and Physics NYA and NYB.
CHL 131 Physical Chemistry Laboratory I
1-0-4
A series of experiments in Physical Chemistry to complement CHM 131.
CHM 231 Physical Chemistry II 3-3-0
Chemical thermodynamics; Zeroth Law and equations of state; First Law and thermochemistry; the Second Law and chemical equilibrium; the Third Law and introduction to statistical thermodynamics; thermodynamic databases; phase equilibrium; calculation of chemical equilibrium in complex systems. Mapleassisted calculus and computations in physical chemistry. This course may be taken online, subject to instructor approval.
This course is currently only offered in odd-numbered years.
Pre-requisite: CHM 131
Co-requisite: CHL 231
CHL 231 Physical Chemistry Laboratory II $\mathbf{1 - 0 - 4}$
Experiments related to the topics of Chemistry 223 which must be taken concurrently by full-time Bishop's students.
This course is currently only offered in odd-numbered years.
Co-requisites: CHM 231
CHM 331 Physical Chemistry III 3-3-0 Maple-assisted computational statistical mechanics and kinetic theory of gases; gas reactions, chemical dynamics. Quantum chemistry, and spectroscopy; atomic structure, atomic orbitals, and atomic spectra (AAS, XPS, ESCA, EDX,...); introduction to molecular orbitals: LCAO, hybridization. Molecular electronic structure and molecular spectroscopy (physical principles of IR/Raman, rotovibrational spectra, ESCA, EPR and NMR spectroscopies).
This course is currently only offered in even-numbered years.
Pre-requisites: CHM 131, CHM 211
Co-requisite: CHL 331 for all Chemistry students and for all biochemistry students planning to do honours research projects in the area of physical chemistry
CHL 331 Physical Chemistry Laboratory III 1-0-4
Experiments related to topics of CHM 331, which must be taken concurrently by chemistry students and by biochemistry students who are planning to do honours research projects in the area of physical chemistry.
This course is currently only offered in even-numbered years.
Co-requisite: CHM 331
CHM 431 Computational Chemistry and Molecular Modelling 3-3-0 Maple-assisted calculations of molecular orbitals and molecular modelling subroutines; from $\mathrm{H} 2+$ molecular ion, via $[\mathrm{Ni}(\mathrm{En}) 3] 2+$ and cis-platin (cancer chemotherapy), to cholesterol and cyclosporin; symmetry and point group analysis of molecular vibration; hybridization and Simple-Huckel Molecular Orbital calculations. Semi-empirical and ab initio methods; calculation of reaction and activation energies via modern alternatives to the Hartree-Fock self-consistent field method; density functional. Combinatorial processing parent-compound libraries and Spartan-assisted CSDB.
This course may be taken online (conditions apply, including instructor's permission and level of enrolment)
Pre-requisites: CHM 231 and CHM 331

## Analytical Chemistry

## CHM 141 Analytical Chemistry

3-3-0
Data handling, stoichiometric calculations, gravimetric analysis, acid-base equilibria and titrations, redox equilibria and titrations, complexometric titrations, precipitation reactions and titrations, electrochemical cells and electrode potentials. Prerequisites: CHM 191 and CHM 192 or Collegial Chemistry NYA and NYB Co-requisite: CHL 141
CHL 141 Analytical Chemistry Laboratory
1-0-4
Quantitative analysis of unknown samples by volumetric, gravimetric, and spectrometric methods will be carried out.
Co-requisite: CHM 141

## CHM 245 Instrumental Analysis

3-3-0
This course provides students with in depth coverage of the theory of instrumental methods of analysis. The topics covered will be chromatography theory and chromatographic methods, atomic absorption and emission spectrometry, and electrochemical methods.
Prerequisites: CHM 141 and CHL 141

## CHL 245 Instrumental Analysis Laboratory <br> 1-0-4

This lab focuses mainly on learning to use the Department's extensive suite of chromatographic instrumentation (GC, GC-MS, HPLC, LC-MS) by performing numerous analyses on each instrument. The analyses will illustrate the importance of chromatography as an analytical method by using examples from forensic, environmental, and food and beverage science.
Co-requisite: CHM 245

## CHM 341 Principles and Practices of Chemical Spectroscopy and Mass Spectrometry

3-3-0
Theory and applications of multinuclear magnetic resonance, UV/VIS, EPR, and electron spectroscopies for chemical analysis. Mass spectrometry and hyphenated methods. Use of chemical spectroscopy and mass spectrometry for the identification of organic compounds. 2D- and imaging techniques, including MRI. This course may be taken online.
Pre-requisites: CHM 111 and CHM 141
Co-requisite: CHL 341
CHL341 Principles and Practices of Chemical Spectroscopy and Mass Spectrometry Laboratory

1-0-4
Experiments related to topics of CHM 341, which must be taken concurrently by chemistry and biochemistry students.
Co-requisite: CHM 341
CHM 442 Surface and Interface Analysis
3-0-9
This course will provide students with an overview of routine and state-of-the-art analytical methods for the characterisation of surfaces and interfaces. Students will understand how radiation is used to determine properties of surfaces and interfaces. Current applications using peer-reviewed scientific literature will be discussed. Students will understand the underlying principles of the methods discussed and will know how they are applied to real-world problems. Students will be able to critically analyse measurement challenges and propose analytical methodology for the characterisation of surface properties.
Prerequistes: CHM 141, CHL 141, CHM 191, CHL 191, CHM 192, CHL 192, CHM 341, CHL 341

## Chemical Literature and <br> Research Projects

## CHM 371F Scientific Writing and Chemical Literature for Major Students

3-0-0
This course introduces the Chemistry Major student to chemical information retrieval and requires two major term papers - one in the Fall semester, one in the Winter semester - each presented also in two short oral presentations. Students will use SciFinder/Chemical Abstracts to perform searching in structure/ substructure, reaction, and bibliographic databases. The literature searching will be used in preparing the two term papers, chosen from a list of topics approved by the Chemistry Department, under the direction of a different member of faculty for each.
Chemistry Major students must enrol in CHM 371 as part of their degree program and may only take this course in their final year. Students receiving credit for CHM 371 cannot also receive credit for CHM 471
CHM 471F Scientific Writing and Chemical Literature for Honours Students

3-0-0
This course introduces the Chemistry Honours student to chemical information retrieval and requires two major term papers - one in the Fall semester, one in the Winter semester - each presented also in two short oral presentations. Students will use SciFinder/Chemical Abstracts to perform searching in structure/ substructure, reaction, and bibliographic databases. The literature searching will be used in preparing the two term papers, chosen from a list of topics approved by the Chemistry Department, under the direction of a different member of faculty for each.
Honours Chemistry students must enrol in CHM 471 as part of their degree program and may only take this course in their final year. Students receiving credit for CHM 471 cannot also receive credit for CHM 371.
CHM 491 Independent Study $\quad \mathbf{3 - 0 - 0}$
CHM 492 Independent Study $\quad$ 3-0-0
CHM 499 Honours Chemistry Research Project 6-0-12
Under the guidance of a faculty member, the student does an experimental research project requiring approximately 12 hours per week in both the Fall and Winter semesters, and presents the results of the project in a seminar and a written dissertation. The project chosen must be approved in advance by the Department, and may be in any field of chemistry plus material science.
Prerequisites: Third Year Honours Chemistry registration or permission of the Department.

## General Interest Courses

## CHM 181 The Chemistry of Everyday Life

This course will discuss the chemistry underlying some everyday, or easily recognizable, products, processes, and policies. These may include: the chemistry of pollution, warfare, polymers and plastics, household products, and food.
This course cannot be taken for credit by students who have received credit for CHM 191 or the collegial equivalent course, Chemistry NYA, or equivalent credit elsewhere.
Course registration requires the instructor's permission.
CHM 182 The History and Science of Beer and Brewing 3-3-0
Beer is among the world's most popular beverages and the industry continues to grow at both the megabrewery and microbrewery levels. This course is a general interest course on the nature of beer from a historical, sociological, and scientific perspective. The diverse nature of beer will be explored, as well as how the beverage has developed from its origins many thousands of years ago to what it has become today. Of particular emphasis will be the development of a general understanding of the brewing process, and the science and engineering involved. Various examples of beer's impact on society and culture will also be discussed.
This course cannot be taken for science credit.

## CHM 183 Experiential Learning Project in Brewing <br> 3-0-9

This course is designed specifically for non-science students interested in gaining experience in brewing beer from scratch. Specifically, students will engage in recipe development by starting with a known formula and make changes, subtle or otherwise, to create a beer that is distinctly their own. The goal is to gain an understanding and appreciation of brewing process as well as the roles that the ingredients of beer (water, malt, hops, yeast, adjuncts) play in the taste, aroma, and mouth-feel of the final product. Due to limited space and the anticipated popularity of this course, interested students must submit a brief proposal outlining the beer they would like to produce and their reason for wanting to take the course. Two students per semester will be selected by the course instructor (Dr. Dale Wood) to participate.
Pre or Corequisites: CHM 182 - The History and Science of Brewing
CHM 185 The Science of Cooking
3-3-0
Food processing is one of the most common activities worldwide, but do we really know what is happening at the molecular level? This course is a general interest course on the chemistry of cooking and is designed to answer questions such as: Why does plunging food in ice water not stop the cooking process? What is happening when baking? And why does deep-fried food taste best and brown better when the oil is older? A particular emphasis will be placed on understanding what chemical transformations are involved during food processing.
This course cannot be taken for science credit.

## CHM 441 Quality Control and Product Analysis as Exemplified by Beer and Brewing

 3-0-9This course will familiarize interested students with the concepts of Quality Control and Product Analysis using beer and the brewing process as an industrial model. Students will gain hands-on experience brewing their own beer with the goal of producing a consistent, high-quality product by tracking the parameters that affect the critical steps in the brewing process. In particular, students will study the effects of temperature, pH , nutrient concentration, and yeast type and how they affect the mash-in, boil (hopping), and fermentation processes, using GC-MS, NMR, HPLC, and other applicable instrumentation. Due to space considerations, this course will be limited to two students per semester, with preference given to students in their final year of study.
Pre or Corequisites: BCH 210,CHM 131, CHM 141, CHM 111, CHM 211, CHM 341 and corequisite labs

## Advanced Courses

CHM 435 Advanced Topics in Organic Chemistry 3-3-0
Advances topics in organic chemistry like stereoselective chemistry, radical chemistry and organometallic chemistry will be introduced through discussions and analysis of representative chemical transformations.

## CHM 436 Total Synthesis in Organic Chemistry

3-3-0
In this course we will look at important total synthesis of natural products, analyze the chemical steps and propose alternative routes.

## Brewing Science Courses

BRS 401 Brewhouse Chemistry
3-3-0
Water, referred to as Hot Liquor in brewing jargon, provides the medium in which all of the chemical and biochemical reactions that are involved in producing beer take place. Additionally, the mineral content of the Hot Liquor is a critical factor in determining many of the final characteristics of the beer, provides many of the essential elements for healthy yeast growth, and contributes enormously to mash pH . This course provides an in depth, comprehensive look at water, its properties, and how its mineral contents affect all aspects of beer and the brewing process. Students cannot receive credit for both BRS 401 and BRS 501. If the student intends to enroll in the Graduate Certificate in Brewing Science, they should not take any of the BRS 40x courses because they cannot be counted for credit toward both a B.Sc. and a Graduate Certificate.

BRS 402 Malt and Malting
3-3-0
Malt is produced by the germination of grain (barley, wheat, rye, etc.) followed by application of heat (kilning). It is the heat regimen, together with the type of grain that determines the characteristics of the malt. The malt is the source of the starch that is converted to sugars which the yeast ferments to produce alcohol and it is also primarily responsible for the colour of the beer. Malt is also an important contributor to flavour, aroma, characteristics of the foam (head), mouth feel, and other characteristics of the beer. This course will cover malt from farming and harvesting of the grain, through the transformations of the malting process, to its chemical and biochemical transformations in the brew house. Students cannot receive credit for both BRS 402 and BRS 502. If the student intends to enroll in the Graduate Certificate in Brewing Science, they should not take any of the BRS 40x courses because they cannot be counted for credit toward both a B.Sc. and a Graduate Certificate.
BRS 403 Hops
3-3-0
Hops is the ingredient that contributes the characteristic bitterness of beer. It is also responsible for much of the flavours and aromas of beer, particularly those observed in heavily hopped beers such as India Pale Ale, American Pale Ale, and even hoppier double IPAs. The first section of this course will cover the farming, harvesting and processing of hops. The second section will cover hop chemistry, focusing on the resins (bittering agents) and essential oils (flavour and aroma contributors) of the hop cone and their transformations during the brewing process. Students cannot receive credit for both BRS 403 and BRS 503. If the student intends to enroll in the Graduate Certificate in Brewing Science, they should not take any of the BRS 40x courses because they cannot be counted for credit toward both a B.Sc. and a Graduate Certificate.
BRS 404 Microorganisms in the Brewery
3-3-0
The role of brewer's yeast in the brewing process, particularly its fermentation of sugars to produce alcohol, is fairly well known. However, yeast is also responsible for producing dozens, if not hundreds, of chemical compounds as it metabolizes the sugars, amino acids, and other components during fermentation. Many of these compounds contribute significantly to the flavour and aroma of beer. Other microorganisms, such as wild yeast and bacteria, are also potential contributors to the complex chemistry and biochemistry that occurs in the fermenter; sometimes to the benefit of the beer but more often to its detriment. This course will look at all of the microorganisms that are commonly found in the brewery and provide a detailed description of their chemistry and thus their impact on beer flavour and aroma.
Prerequisites: CHM 211 and BIO 201
BRS 405 Chemical Analysis of Beer and its Ingredients 3-3-0 As a food product, beer is rigorously controlled at both the federal and provincial levels of government. Part of this process is ensuring that a number of analytical parameters are accurately reported (e.g. alcohol by volume). Many other properties of beer are indicators of the efficacy of the brewing process and whether the brewer is producing a quality product. Analysis of the ingredients of beer (water, malt, hops, yeast) is essential to ensure that standards of quality necessary to produce good beer are met. This course will provide students with an in depth look at the chemical analyses commonly used to analyse beer and its precursors, using the methods database of the American Society of Brewing Chemists. Students will use what they learn to analyse the ingredients and the beer that they use / produce in the co-requisite practicum in brewing.
Prerequisites: CHM 141, CHL 141, CHM 245 and CHL 245
BRS 406 The Business of Brewing 3-3-0
There is a great deal of time and hard work that goes into planning, building, equipping, and running even a small microbrewery. When a microbrewery fails, it is generally because the ownership doesn't have a particular skill set, whether it be on the brewing side or on the business side. This course will take students through all of the steps necessary to get a microbrewery from the planning to the operation stage, and also introduce them to the business knowledge necessary for running a successful microbrewery.
Co-requisite: BRS 405

## Computer Science

Faculty<br>Madjid Allili,<br>B.Sc.(Algiers), M.Sc., Ph.D.(Sherbrooke);<br>Professor<br>Chair of the Department<br>Layachi Bentabet,<br>B.Sc.(Eng.National Polytechnic, Algeria), M.Sc.(Elec.Eng. Institut national des sciences appliquées, Lyon),<br>Ph.D.(Sherbrooke);<br>Professor<br>\section*{Stefan D. Bruda,}<br>B.Sc.Eng., M.Sc., Ph.D. (Queen's); Professor<br>\section*{Russell Butler}<br>Lin C. Jensen,<br>B.Sc. (Stanford), M. Sc. (Concordia); Lecturer

## Program Overview

Computer science is a subject related to almost every contemporary intellectual discipline, the arts (computer-generated art, verification of historical documents, syntax study of languages including translation, etc.), social sciences (correlating experimental data, simulation, artificial intelligence studies), natural sciences (has always had application in this area), business and government (the largest single groups of users), education (computer-aided instruction, artificial intelligence), medicine, etc.

The department offers a wide selection of programs, ranging from broad to specialized:

## 1) Undergraduate B.Sc. Degree Programs

I. B.Sc, Honours in Computer Science
II. B.Sc, Major in Computer Science
2) A multidisciplinary B.A. with a Major in Information

Technology (BAIT)
3) Minor in Computer Science
4) Certificate Program in Computer Science

Note: A Co-op program is offered for all students in programs 2) and 3) above. Please refer to the Co-op section.
5) Master's Degree Program (see Graduate Programs section)
I. Thesis Option
II. Project Option

## Undergraduate B.Sc. Degree Programs

## Honours in Computer Science (120 credits)

HONCSC

## A. Dissertation-based Honours

18 credits: Program prerequisites (please refer to Table II in the Divisional section of the Calendar)
57 CS credits: 39 required: CS 201, CS 211, CS 216, CS 304, CS 310, CS 311, CS 317, CS 321, CS 403, CS 409, CS 455, CS 499
18 electives: must include 12 credits from 400-level courses and above
12 MAT credits: 12 required: MAT 108, MAT 200, MAT 206, MAT 207
3 PHY credits: PHY 101
3 credits: $\quad$ Arts and Science requirement (please refer to the Divisional section of the Calendar)
27 credits of free electives

## B. Course-based Honours

The course-based stream does not require a dissertation (i.e. CS 499) but requires 3 more CS courses. It is primarily designed for students wishing a specialization in Computer Science but are not interested in research and do not intend to pursue graduate studies:
18 credits: Program prerequisites (please refer to Table II in the Divisional section of the Calendar)
60 CS credits: 33 required: CS 201, CS 211, CS 216, CS 304, CS 310, CS 311, CS 317, CS 321, CS 403, CS 409, CS 455
27 electives: must include 15 credits from 400-level courses
12 MAT credits: 12 required: MAT 108, MAT 200, MAT 206, MAT 207
3 PHY credits: PHY 101
3 credits: Arts and Science requirement (please refer to the Divisional section of the Calendar)
27 credits of free electives

## General Notes for Honours

- after a minimum of 1 semester, a student with a grade of at least $80 \%$ in required courses may request entry to the Honours program
- the dissertation stream requires, in addition, departmental permission.
- students must maintain an average of $80 \%$ in required courses to stay in the program


## Major in Computer Science

## (120 credits)

MAJCSC
18 credits: Program prerequisites (please refer to Table II in the Divisional section of the Calendar)
45 CS credits: 30 required: CS 201, CS 211, CS 216, CS 304, CS 310, CS 311, CS 317, CS 321, CS 403, CS 409
15 electives
9 MAT credits: 6 required: MAT 108, MAT 200 3 elective (MAT 19X cannot count as MAT elective)
3 PHY credits: PHY 101
3 credits: Arts and Science requirement (please refer to the Divisional section of the Calendar)
42 credits of free electives

## B.A. PROGRAM, MAJOR IN INFORMATION

 TECHNOLOGY
## Information Technology

MAJITC
Information Technology (IT) is defined by the Information Technology Association of America (ITAA), as the study, design, development, implementation, support or management of computer-based information systems, particularly software applications and computer hardware. IT deals with the use of electronic computers and computer software to convert, store, protect, manage, transmit and retrieve data, securely.

This program provides the necessary skills and knowledge to work/design/participate within organizations that manage large amount of data and provide services to a large number of users. Students will develop skills and knowledge in Information Technologies, Management practices and Organizations, with the required fundamentals of Computer Science
Note: Students following this degree program are not eligible to add a Business program.
Program prerequisites: ( $\mathbf{1 2}$ credits) Please refer to Table II in the Divisional section of the Calendar.
Core curriculum ( $\mathbf{3 0}$ credits):
CS 201, CS 211, CS214/CS 325, CS 304, CS 307
BCS 220, BHR 221, BMA 140, BMA 141, BMG
100

Secondary Core [1] (30 credits)
A minimum of 3 courses in Computer Science.
A minimum of 3 courses in Business, normally chosen from the following list:
BAC 121, BCS 210, BCS 212, BCS 216, BCS
313, BMG 214, BMK 211, BMK 214, BMK 291, BMK 323, BMK 371, BMS 231, BMS 303, BMS 332
[1] Students are advised to consult the Calendar for prerequisites
Arts and Science requirements ( $\mathbf{3}$ credits)
Please refer to the Divisional section of the Calendar
Free electives ( 45 credits)

## Co-Operative Education Program

The co-operative Education Program combines a student's academic program with integrated work experiences through fulltime work terms and regular academic sessions. The work terms are designed to present the students with the opportunity to blend theory and practice and to gain relevant work experience.

Each co-operative work term is between 12 and 16 weeks in length, and the student will be registered in a 3 -credit Cooperative Placement course (CS 391, CS 392 or CS 393). These course credits count as free electives. Each is graded on a pass/ fail basis and this grade is not included in the student's cumulative average. The evaluation is the responsibility of the Departmental Chair and will be based upon the submission of a work term report and a job performance report submitted by the employer. Normal academic regulations apply to the conduct and evaluation of the courses.

The number of work terms needed depends on the number of credits the students need to complete upon admission at Bishop's. Student who have been granted 30 advance credits (or more) will be required to complete two work terms ( 6 credits). Other students who have been admitted into a regular 120 -credit degree program will be required to complete three work terms ( 9 credits). These credits will be added to the student's program and do not count as computer science courses, computer science electives, or free electives. All work terms must be completed before the student's final academic semester and a student's last semester before graduation cannot be a work term. While every effort will be made to find a suitable placement for all students in the program, no guarantee of placement can be made since the employment process is competitive and subject to market conditions.

## Admission to the Co-operative Education Program

 Students must submit an application to be admitted to the program. Full-time students in any Honours or Major program offered in the Computer Science Department who have completed the online application package, who have successfully completed BMG191 and who have a minimum cumulative average of $70 \%$ upon application are admissible into the Co-op Program. Students in the Co-op must maintain their $70 \%$ average and be full-time in order to stay in the program.
## Work Term Registration

Once a student has signed the Co-operative Education Agreement, the student may not drop the course associated with the work placement, except for exceptional circumstances. A student who decides to do so will not be able to stay in the Co-operative Education program.

## Tuition and Fees

Each work term placement is a 3-credit course and students will pay tuition based upon their fee paying status (Quebec resident, Canadian out-of-province, International).

## Work Term Evaluation

Successful completion of the work term is based upon the following:

- The receipt of a satisfactory job performance report from the employer
- The submission of a satisfactory work term report by the student.
The job performance report will be completed by the employer, using guidelines supplied by the Computer Science Department. It is the student's responsibility to ensure that the employer sends the completed evaluation to the Co-op Coordinator on or before the established deadline. Employer evaluations are confidential and are not reported on the student's transcript.


# MINOR IN COMPUTER SCIENCE (24 credits) <br> 9 required: CS 201, CS 211, CS 304 <br> 15 electives from any CS course 

 MINCSC
## CERTIFICATE PROGRAM (30 credits)

## Description and objectives:

The Certificate Program in Computer Science is designed for individuals who need to acquire a basic understanding of computers and programming and knowledge of the field in order to expand their area of interest and professional expertise. Topics include: Programming, Software Engineering, Web Design, Networks, Graphics, Artificial Intelligence and others. This program will help students to take full advantage of the computer technology available in the workplace.

## Prerequisites to programs:

Applicants with insufficient Math background might be required to take an additional 3-credit Math course in their first semester (Math 190 or equivalent).

## Program Overview

## Certificate in Computer Science

- 12 required credits: CS 201, CS 211, CS 304, CS 321
- 18 credits of CS electives


## General Notes/Restrictions:

1. Only one of CS 404, CS 408 or CS 499 may be taken for credit, unless with a special departmental authorization
2. Computer Science courses that are double-listed in Math cannot be counted toward fulfilling the Math electives required for the Computer Science Honours/Major.
3. Students must fulfill their Arts and Science requirements and Humanities requirements outlined in the "Divisional" section of the Calendar.

## List of Courses

CS 201 Foundations of Computer Science $\begin{array}{r}\text { 3-3-0 }\end{array}$ An introduction to Computer Science and selected applications suitable for both majors and science non-majors who want a broad overview of the field. The course provides a layered introduction covering hardware, system software and applications packages. The course includes elementary programming. Topics include Algorithmic foundations of Computer Science; The hardware world: number systems, boolean logic, computer circuits, Von-Newmann architecture; System software: assembly language, operating systems, high level languages, language translation; Models of Computation; Applications and Social Issues
Note: Registration priority is given to Science and IT students. CS students must take this course in their first year.
CSL 201 Foundations of Computer Science Laboratory
1-0-3
This is the practical laboratory for CS 201
CS 203 Interactive Web Page Design 3-3-0
In this course, students will learn the basics of HTML, the language describing web pages, and CSS, another web page language. By constructing fill-in forms and employing short sections of script, students will learn how to enable users of the Internet to interact with their web pages: sending data to be stored, and receiving customized responses. The course will include simple database operations. Extensive laboratory work will result in students creating their own set of personal web pages on a publicly accessible server. The course is open to anyone interested in the subject.
CSL 203 Interactive Web Page Design Laboratory
1-0-3
This is the practical laboratory for CS 203
CS 211 Introduction to Programming 3-3-0
This course introduces algorithms, data structures and software engineering principles. The use of a high level language is the tool to develop these components. By the end of the course, a successful student should be 'fluent' in programming, and have a good base for simple data structures. The course provides the necessary programming skills needed for further studies in Computer Science.
CSL 211 Introduction to Programming Laboratory 1-0-3
This is the practical laboratory for CS 211
CS 214 Introduction to Networks 3-3-0
This course introduces and discusses the components and architectures of computer networks. Topics to be covered include: Resources Sharing (Network Interface Circuitry, Files Servers, Workstations, etc.), Network Protocols (TCP/ IP, Apple Talk, Novel, etc.) and Network Infrastructure (Hubs, Routers, Gateways, Bridges, etc.).
CS 216 System Programming Languages 3-3-0 System programmers need to understand how a computer works at a low level. They program primarily in C, with some assembly language. This course covers number systems, the C programming language, and an assembly language for a representative processor architecture. Topics covered include addressing modes, the stack, function calls and argument passing.
CSL 216 System Programming Languages Laboratory $\quad \mathbf{1 - 0 - 3}$
Practical work for CS 216 will consist of programming in C and MIPS assembly language.
CS 219 General Topics in Computer Applications 3-3-0
The course will present general Computer Science-related topics, of interest to both Computer Science as well as non-Computer Science students. The course content is expected to vary to reflect the interest of students and Faculty, as well as market innovations.

## CSL 284 Unix System Administration Laboratory

1-0-0
This lab familiarizes students with the Linux and Unix environments covering system administration and user management. Students will start with isolated machines then learn how to interface a Unix system with a network. Advanced topics include the configuration and administration of email and Web servers, as well as techniques for the automation of system administrator tasks via scripting languages. All students will have root and console access to real machines, thus they will gain real networking experience.
Prerequisite: CS 211

CS 301 Computer Ethics 3-3-0
Ethics is a branch of philosophy. Computers introduce arguably unique ethical issues in the way their use affects society. Technically minded professionals often give little attention to ethical issues. This course explores the basis for ethical reasoning, and examines ethical issues such as invasion of privacy, mischief including viruses, piracy and liability of software. It also considers broader issues of impacts on the individual and society, control of the technology, and the question of the difference between human understanding and rule-base processing of data. Students will be expected to participate in class discussions and roleplaying scenarios, and to write a term paper.

## CS 304 <br> Data Structures <br> 3-3-0

An advanced course designed to expose the student to the latest programming theory and software engineering principles. Topics covered include modularization, data encapsulation, information hiding, data abstraction, and other object oriented software construction techniques will be discussed. Parallel design of algorithms and data structures, analysis of algorithms (including "big O" notation and software verification methods.) Standard data structures such as stacks, queues, trees and graphs will be examined. Programming examples are done in Java.
Prerequisite: CS 211
CS 306 Functional and Logic Programming
3-3-0
There is much more than imperative programming. This course introduces two other programming paradigms, functional and logic. Topics normally include: functional programming languages, such as Lisp and Haskell; higher order functions, lazy evaluation, abstract and recursive types, structural induction, symbolic expressions; logic programming languages, such as Prolog; operational interpretation of predicates and terms, proof search, unification, backtracking; typical applications.

## Prerequisite: CS 304 Allow concurrent

CS 307 Using and Designing Data Bases 3-3-0
This course presents data modeling (Entity-Relationship model, UML, etc..), relational algebra, normalization, SQL language. Implementation of databases using the relational model is discussed. Object-oriented modeling and implementation is also introduced. Other topics include: Concurrency control, transaction processing, client-server systems, distributed databases, and webbased delivery of data.
Prerequisite: CS 304
Note: Students may not take this course for credit if they received credit for either BCS 214 (Jan 98 and onward) or CSC 274 (prior to 2003).

CSL 307 Using and Designing Data Bases Laboratory 1-0-3
This is the practical laboratory for CS 307
CS 308 Scientific Programming
3-3-0
Scientific Programming is a course for students who want to learn more about the computing that goes on behind computational science. Students will learn the basic mathematical tools and computational techniques including the design and analysis of algorithms for solving mathematical problems that arise in many fields, especially science and engineering. Emphasis is placed on both the actual implementation and on the numerical and algebraic methods. The programming projects assigned in this course will make substantial use of C and $\mathrm{C}++$ for numerical computations and Maple for symbolic computations.
Prerequisite: CS 304, Math 191, Math 192
Note: See PHY 378. Students may not take this course for credit if they have received credit for Mat 279 or Phy 378.
CS 310 Introduction to Software Specifications 3-3-0 This course provides to all the students in CS degrees essential material on formal languages and automata, and also on program specification using logical predicates. The following topics will be addressed: introduction to techniques for specifying the behaviour of software, with applications of these techniques to design, verification, and construction of software; logic-based techniques such as loop invariants and class invariants; automata and grammar-based techniques, with applications to scanners, parsers, user-interface dialogs and embedded systems; computability issues in software specifications. These topics have been chosen because they are both theoretical and practical, and will be presented as such.
Prerequisite: CS 211
Prerequisite or Corequisite: MAT 200

CS 311 Computer Organization and Logic Design
3-3-0
This is a theoretical course on computer organization and architecture. Different computer components and how they function are studied in detail. By the end of the course, students should be able to build (in theory) a small computer without interface. Topics covered are: boolean algebra and gates, combinational circuits (decoders, multiplexers, PLAs), logic design (flip-flops, shirts registers, counters, sequential circuits), the ALU, memory (RAM,ROM, secondary storage), I/O Devices and the control unit (hardwired, microprogramed). For those interested students, a follow-up course, largely consisting of lab experiments, is CS 312 Prerequisite: CS 201, CS 211
CSL 311 Computer Organization and Logic Design Laboratory 1-0-3 This is the practical laboratory for CS 311

CS 312 Microcomputer Interfacing
3-3-0
This course and integrated laboratory introduces the techniques used to interface a microcomputer to the real world with a robot as the main interface. Students will complete projects of increasing difficulty as they build and program a robot to accomplish a given task and brief the class on their design and findings. Topics will include: interactive programming, analog and digital inputs, use of the bus and registers to control output signals, simple electronic sensors, multiplexing and decoding and practical problem solving.
Prerequisite: CS 311 or equivalent programming and electronic knowledge.
CSL 312 Microcomputer Interfacing Laboratory
1-0-3
This is the practical laboratory for CS 312
CS 315 Data Communications 3-3-0
This is a theoretical course on Data Communications. It covers the basic and physical aspects involved when data is transmitted from one point to another, such as analog vs. digital transmission, various forms of encoding analog and digital data into appropriate signals, error detection techniques, multiplexing, etc... As well as an introduction is given on networking techniques, differences between circuit and packet switching, routing techniques, and Local Area Networks. The course is of mathematical and physical nature.
Prerequisites: CS 211 or CS 216
Note: See PHY 365. Students may not take this course for credit if they have received credit for PHY 365.
CS 316 Artificial Intelligence
3-3-0
A course aiming to introduce students to the basic concepts and techniques of Artificial Intelligence. Topics will include: Search strategies; knowledge representation; AI languages; Rule-based inference systems, expert systems; computer vision; planning and problem solving; natural language understanding. Prerequisite: CS 304, CS 306 or CS 403
CS 317 Design and Analysis of Algorithms
3-3-0
This course is intended to make students familiar with most of the existing techniques for problem solving. It starts with an introduction to algorithms efficiency, solving recurrence relations and basic data structures. Then different techniques for algorithms design are discussed; the divide-and-conquer technique, the greedy technique and its applications to graph algorithms, dynamic programming, backtracking and branch and bound algorithms. With every technique presented, examples from different domains are studied and their algorithms analyzed. At the end, students are briefly introduced to the vast area of "difficult" problems, or NP-complete.

## Prerequisite: CS 304 and MAT 200

CS 318
Advanced C++ Programming
3-3-0
The C++ language has become an industry standard as an implementation language. The course aims at introducing the student to intermediate and advanced programming using $\mathrm{C}++$, with particular emphasis on systems software and the use of the $\mathrm{C}++$ object-oriented extensions in software engineering
C++ Programming basics (loops and decisions, arrays, structures, functions, pointers) Objects and Classes, Inheritance, Virtual functions, files and stream, I/O Structure and design of Class libraries, Standard Template Library, OOP Design basics.
Although no prior experience in C is required, it is assumed that the student is already fluent in some other programming language and in the programming of data structures.
Prerequisite: CS 304

CS 321 Advanced Programming Techniques 3-3-0
The course is intended to be a sequel to introductory programming with emphasis placed on the architecture of software. It will go in depth into object-oriented techniques, reusability, data abstraction, class design, and implementation, design and structure of class libraries. Topics to be covered include: polymorphism, encapsulation, overloading, inheritance and delegation, types of inheritance (Inheritance for Extension, Specialization and Specification), composition, aggregation and design of collections. Static and dynamic types, downcasting, exception handling. The second half of the course will be devoted to software design patterns, with particular emphasis on the observer, iterator, visitor and selected creational patterns. Course work will involve significant programming projects. The teaching language will be Java.
Prerequisite: CS 304 Allow concurrent
CSL 321 Advanced Programming Techniques Laboratory
1-0-3
This is the practical laboratory for CS 321

## CS 325 Computer \& Network Security

3-3-0
This course provides an introduction to security and privacy issues in various aspects of computing, including cryptography, software, operating systems, networks, databases, and Internet applications. It examines causes of security and privacy breaches, and gives methods to help prevent them.
Prerequisite: CS 216
CS 330 Programming Mobile Apps 3-3-0
This course will cover mobile application development for the Android operating system using Android Studio. The programming language is Java. Setting up and using Android Studio IDE will be covered in the introduction. Students will learn how to design and develop Android applications using best practices to account for the limited screen size and memory of mobile devices. Topics to be covered include layout design/management, communication between apps, Google Maps, 2D graphics, and mobile app specific software engineering patterns. The course concludes with monetization (ads, in-app purchases, etc) and app store optimization strategies. The goal is for each student to develop and release an app by the end of the course.
Prerequisite: CS 211
CSL $330 \quad$ Advanced Programming for Mobile Apps Laboratory 1-0-3
This is a practical laboratory for CS 330
Co-requisite: CS 330
CS 375 Numerical Methods 3-3-0
Numerical techniques for problem solving in mathematics, computer Science and Physics. Error analysis, roots of equations, QR-algorithm, interpolation, Numerical approaches to differentiation, integration and solutions of differential equations.
Prerequisite: CS 211, Mathematics 108 and 207.
Note: See Mat 325 and Phy 375. Students may not take this course for credit if they have received credit for MAT 325 or for PHY 375

CS $379 \quad$ Electric Circuits and Electronics
3-3-3
Review of D.C. circuits, Kirchoff's laws, network theorems. Network analysis for A.C. circuits, phasors. Diode circuits and filters. The physical basis of semiconductor devices including semiconductor diodes, junction transistors, and field-effect transistors. The operation of transistor amplifiers, digital electronics and integrated circuits will also be covered.
Note: See PHY 319. Students may not take this course for credit if they have received credit for PHY 319

## CS 391 Co-operative Placement I

3-0-0
Students will integrate theory and practice through a related work placement Prerequisite: admission to the Co-op Education Program
CS 392 Co-operative Placement II $\quad \mathbf{3 - 0 - 0}$
Students will integrate theory and practice through related work placement Prerequisite: CS 391
CS 393 Co-operative Placement III $\quad$ 3-0-0
Students will integrate theory and practice through related work placement Prerequisite: CS 392

## CS 394 Stage in Bioinformatics

Students will integrate theory and practice through a related stage.
Prerequisite: CS 372 / BCH 342

## CS 400 Independent Studies

 3-0-0Individual study and research under the guidance of an advisor and Department staff.
Prerequisite: Permission of the department

CS 401 Simulation Techniques
3-3-0
Computer simulation is defined and put into the context of other simulation methods. Two main techniques are studied, one involving automated spreadsheets (financial modelling) and the other queuing theory. A term project involving the simulation of an actual system is part of the course.
Prerequisite: CS 304, PHY 101 (or equivalent)
Note: Students may not take this course for credit if they received credit for BMS 343. This course will be offered in alternate years.

CS 402
Computer Graphics
3-3-0
This is an introductory course to the principles of interactive raster graphics. Topics include an introduction to basic graphics concepts, scan conversion techniques, 2-D and 3-D modeling and transformations, viewing transformations, projections, rendering techniques, graphical software packages and graphics systems. Students will use OpenGL graphics API to reinforce concepts and study fundamental computer graphics techniques.
Prerequisites: CS 304, MAT 108
CSL 402 Computer Graphics Laboratory
1-0-3
This is the practical laboratory for CS 402
CS 403 Principles of Programming Languages 3-3-0
The objective of this course is to introduce, analyze and evaluate, on a comparative basis, the concepts on which programming languages and their implementations are based. Topics to be covered: definition of languages, syntax and semantics; Compilation techniques, top-down parsing, creating a parser; variables and binding, expressions, statements; data types; procedures scope, and run-time considerations; coroutines; implementation of block-structured languages; modularity and abstractions; concurrency exception handling and program correctness; functional programming object-oriented programming languages; logic programming and constraint languages.
The languages ML, Eiffel, Lisp, Scheme, Prolog, Haskell, 02, Java and Smalltalk will be used to illustrate the above concepts.
Prerequisites: CS 304 and CS 310
CS 404
Project
3-0-3
This course is normally taken by CS students in their final year. The project must be approved in advance by the department. Students will be expected to submit a written report and to make a presentation.
Prerequisite: approval of the dept., $80 \%$ in CS courses
CS 405 Data Mining 3-3-0
Data is now created faster than humans are able to understand it and use it. There may be patterns hiding within this data with potentially useful information. This course will teach students, how to discover these patterns for the purpose of solving problems, gaining knowledge, and making predictions. Topics covered in this course include data preparation, clustering, classification, association rules for mining and models combination. This course includes assignments and a final project where the students are required to perform mining on real datasets.
Prerequisites: PHY 101 (or equivalent)
See PHY 374
Students may not take this course for credit if they have received credit for PHY 374.

CS 406 Compilers and Interpreters 3-3-0
This course is intended as an introduction to the fundamentals of language translation and compiler construction. Topics will include language theory and syntax; grammars, finite state machines, non-deterministic push-down automata; a thorough treatment of parsing methods covering top-down, bottomup and precedence parsers; Syntax directed translation; Run-time environments; optimization and error recovery; code generation. Students will be required to construct a working interpreter of a Pascal-like language.
Prerequisite: CS 310
This course will be offered on alternate years.

## CS 408

Project II
3-0-3
This course is normally taken in the final year of studies and may involve work on a theoretical topic or a practical implementation of a sizable software project. The topic must be approved in advance by the department. Students are expected to attend bi-weekly project meetings where they present and discuss their work. In addition, they will make a final presentation at the end of term and submit a report. Prerequisite: approval of the dept. $80 \%$ in CS courses.

CS 409 Principles of Operating Systems 3-3-0
Basic concepts of computer hardware; program translation linking and loading; cooperating sequential processes; critical section problem, process synchronization primitives, parallel programming; introduction to multiprogramming; operating system nucleus; file systems; reliability and protection; system performance, measurement and evaluation. Memory Management. Paging and Virtual memory. Unix. Using and programming the Unix Shell, Unix implementation. Examination of the implementation of Unix clones Minix, Linux, Survey of state-of the-art operating systems. Distributed Systems, Communication and synchronization in distributed systems. Theoretical issues and implementation.
Prerequisites: CS 304
CS $410 \quad$ Software Engineering 3-3-0
Software is an engineered product that requires planning, analysis, design, implementation, testing and maintenance. This course is a presentation of the techniques used in each step of the software product process. Topics: software requirements analysis and specifications; software design process, object oriented design; testing, reliability and maintenance. Students will be expected to work jointly on several large software projects.
Prerequisites: CS 304, CS 310, CS 321, CS 403 (allow concurrent)
CS 411
Advanced Computer Architecture
3-3-0
The focus in this course is on basic principles, current practice, and issues in computer architecture and organization. At the end of the course students will have gained an understanding of how a computing system is organized, as well as why it is organized this way. The relation between hardware and the software that runs on it is emphasized, leading to an intuitive understanding of how the behavior of applications influences computer organization and design. Topics covered typically include (but are not limited to): instruction set design, micro-programed versus hardwired processors, pipelining and superscalar processors, memory organization (cache, primary, virtual), I/O and interrupts, multiprocessors. Comparative critical and quantitative analyses of various systems that currently exist are presented. Prerequisites: CS 311 or instructor's permission.

## CS 412 Computer Games Design 3-3-0

 This course will explore the theory and practice of video game design and programming. Students will learn the basic concepts and techniques for the design and development of digital games. The topics covered in this course will include the history and taxonomy of video games, the basic building blocks of a game, computer graphics and programming, use interface and interaction design, and the software architecture for video games. It is assumed that students have taken courses in programming (best if it includes C or $\mathrm{C}++$ ) and data structures. A good background in algorithms and basic mathematics (matrix algebra, trigonometry, linear algebra, vector calculus) is an asset for this course.Prerequisite: CS 304
All special topics courses require CS 211 and CS 304 as a prerequisite and/or any other course as specified by the instructor.

CS 415 Special Topics in Communications 3-3-0
The course will present topics of current interest or research directions in Computer Communications Networking and network programming. The course content is expected to vary to reflect the current interests of students and faculty. It will be offered by arrangement with the department.
CS 416 Special Topics in Software
3-3-0
The course will present topics of current interest or research directions in Software Science. The course content is expected to vary to reflect the current interests of students and faculty. It will be offered by arrangement with the department.
CS $417 \quad$ Special Topics in Computer Applications
3-3-0
The course will present topics of current interest or research directions in Computer Applications. The course content is expected to vary to reflect the current interests of students and faculty. It will be offered by arrangement with the department.

CS 418 Topics in Computer Science
3-3-0
The course will present topics of current interest or research directions in Computer Science. The course content is expected to vary reflecting the interests of the students and the faculty. It will be offered by arrangement with the department.

## CS 454 Complements in Data Structures and Algorithms 3-3-0

The aim of this course is to cover many concepts in Data Structures, Algorithms, and Programming to make up deficiencies in Computer Science background for entering graduate students.
This course cannot be taken for credits by undergraduate students

CS 455 Theoretical Aspects of Computer Science
3-3-0
The course will include several of the following topics: Computational models, Computational complexity; Finite-state machines; Context-free languages; Pushdown automata; Turing machines; Undecidable problems.

## Prerequisite: CS 211, MAT 200

CS 457 Database Software Design 3-3-0
This course covers how one can implement a Database Management system. Major topics are storage management, Query processing, and Transaction management. As a basic assumption, data will not all fit in main memory, so algorithms and data structures appropriate for effective disk storage and quick access must be used. For example, one may use index structures such as B-trees or hash tables. We cover parsing of queries and optimizing of query plans. Finally, we cover durability of transactions using logging, and concurrency control for isolation of transactions. Additional topics in distributed databases are also presented.
Prerequisite: CS 307
CS 462
Image Processing
3-3-0
This course will introduce the area of Image Processing and present classical tools and algorithms in the field including: image perception, image acquisition and display, histogram techniques, image restoration, image enhancement, primitive operations for image analysis, segmentation, image transforms, and pattern and object recognition.
Some examples of industrial applications of image processing and some important developments in image processing research will be also addressed.
Prerequisites: CS 304, MAT 192, PHY 101 (or equivalent)

## CS 463

Computer Vision
3-3-0
This course is concerned with the computer acquisition and analysis of image data. Computer vision is the construction of explicit, meaningful descriptions of a physical object from images. Emphasis will be placed on: camera models and calibration, image representation, pattern recognition concepts, filtering and enhancing, segmentation, texture, motion from image sequences, deformable models, matching, stereovision, perceiving 3D from 2D images and tracking with dynamic models. The programming projects assigned in this course will make substantial use of the C and $\mathrm{C}++$ programming languages
Prerequisites: CS 304, CS 318, MAT 192, PHY 101 (or equivalent)
CS 464
Network Programming
3-3-0
This course presents computer networks at a functional level, with strong emphasis on programming distributed applications over a network. Discussion will be based on open networking and application standards such as the TCP/IP protocol suite and the Portable Operating System Interface (POSIX). Topics normally covered are TCP/ IP architecture and programming, the client-server model, network file systems, streaming, tunnelling. Programming distributed applications (in C or C++) is an integral part of the course.
Prerequisite: CS 216
CS $467 \quad$ Special Topics in Algorithms
3-3-0
The course builds on the techniques covered in CS 317 to present some specialized algorithms in several areas, including Bioinformatics, Computational Geometry, and Network Flow.
Prerequisite: CS 317 or permission of the instructor
CS 469 Special Topics in Computer Science
3-3-0
The course will present topics of current interest or research directions in Computer Science. The course content is expected to vary from year to year to reflect the current interests of students and faculty. It will be offered by arrangement with the department.
CS 471 Graph Theory 3-3-0
An introduction to the combinatorial, algorithmic and algebraic aspects of graph theory.
Prerequisite: CS 304, MAT 200
Note: See MAT 421. Students may not take this course for credit if they have received credit for MAT 421.
CS 499F Honours Dissertation 6-0-0
The student is required to complete a theoretical or applied project. The subject is arranged with the student's supervisor during the first four weeks of term. A written dissertation is required as well as two seminar presentation.
Note: This course is open only to final year Computer Science Honour Students in the dissertation stream, and only by permission of the department

## Mathematics

## Faculty

Madjid Allili,

B.Sc.(Algiers), M.Sc., Ph.D.(Sherbrooke); Professor
Thomas Brüstle,
B.Sc., (Ludwig-Maximilians), M.Sc., Ph.D. (Zurich), Professor, Maurice-Auslander Research Chair

## François Huard,

B.Sc., M.Sc., Ph.D. (Sherbrooke); Professor

## Trevor H. Jones,

B.Sc.H. (Acadia), M.Sc. (Dalhousie), Ph.D. (University of New Brunswick); Senior Instructor
Scosha Merovitz,
B.Sc.(Bishop's), M.Sc.(Dalhousie); Coordinator, Math/Stats Help Centre
David Smith,
B.Sc., M.Sc., Ph.D. (Sherbrooke); Adjunct Professor
N. Brad Willms,
B.Math. M.M., Ph.D. (Waterloo); Associate Professor
Chair of the Department

## Program Overview

Mathematics is the language of the sciences, a language which allows scientists to quantify, model, understand and predict behaviour in an enormously diverse range of phenomena of interest. Simultaneously, Mathematics is often regarded as an art, as it is the creative study of patterns and of problem solving. Mathematics covers a wide range of disciplines including algebra, analysis, combinatorics and discrete mathematics, and differential equations. In first-year courses, mathematics students are joined by other science students, particularly from Physics and Computer Science. In the advanced courses, classes are very small, and some are given on an individual or tutorial basis.

The highest level of specialization is Honours, and Honours programs prepare students for direct entry into graduate work leading to a Master's or Ph.D. degree. All honours mathematics students have an opportunity to study independently and thus develop their reading and problem solving skills, and there is some chance to pursue special interests. The Majors programs provide students with an excellent general preparation for the career world, while not preventing entrance into graduate school (sometimes after a qualifying year). The Majors programs have sufficient electives to allow students to combine their major with a second major or at least a minor (the least specialized type of program) in another discipline. Students are encouraged to add a minor or major and many do so. Popular choices include computer science, physics, music, English, French, Spanish, drama, and philosophy. The Department of Mathematics offers several specialized, interdisciplinary programs, jointly with other departments, including Hispanic Studies and the School of Education.

## First-year Calculus requirement

All Mathematics students require six course credits of Calculus studies, normally in their first year. Students with a Québec collegial diploma (DEC) shall be granted advance credit for these courses if they have completed a course in Differential Calculus and a course in Integral Calculus at CEGEP. If one or both of these courses were not completed at CEGEP, they must be completed at Bishop's and advanced credits shall be reduced accordingly. Students entering four-year programs in Mathematics with a grade 12 diploma (or equivalent) must register in MAT 191 and MAT 192 in their first year. These courses are included in the 120 total credit requirement. Students transferring into Mathematics programs may use credit for MAT 198 to replace MAT 191, and MAT 199 to replace MAT 192. Credit for MAT 197 with a grade of $80 \%$ or higher will also be accepted to replace MAT 191. Mathematical Contexts Minor program students normally complete MAT 198 and MAT 199 (instead of MAT 191 and MAT 192, although these are also acceptable), and do not need to do so in their first year.

## First-year Physics requirement

Mathematics students pursuing the Bachelor of Science (B.Sc.) degree require six course credits of introductory physics studies in their first year. Students in the Bachelor of Arts (B.A.) degree program are exempt from this requirement. Students with any DEC are exempt from this requirement if they have completed two introductory Physics courses, Mechanics, and Electricity and Magnetism, at CEGEP. If one or both of these courses were not completed, they must be completed at Bishop's and advanced credits shall be reduced accordingly. Students entering four-year B.Sc. programs in Mathematics with a grade 12 diploma (or equivalent) must register in PHY 191 and PHY 192 in their first year.

## Humanities requirement

Students must complete six course credits of humanities studies, normally in their first year at Bishop's. Students who have a Québec Collegial Diploma (DEC), students admitted as "Mature Students", and 2nd Bachelor's degree students are all exempt from this requirement. The Humanities requirement must include ENG 116 Effective Writing, or another English course (coded 'ENG'), and one additional course selected from Humanities courses in Classical Studies, English, History, Liberal Arts, Philosophy or Religion (courses coded CLA, ENG, HIS, LIB, PHI, or REL).

## Arts and Science requirement

In addition to the Humanities requirement above, all students are required to complete at least three credits in either the Division of Humanities or the Division of Social Sciences. Students with program combinations which require more than 72 credits are exempt from this requirement.
Please refer to the Natural Sciences Division page for information on Divisional Requirements.

The Programs
The Department of Mathematics offers the following degree programs:

| Name of Program | Code | Levels of Specialization Available | Degree Types Available |
| :--- | :--- | :--- | :--- |
| Mathematics | MAT | Honours, Major or Minor | B.Sc. or B.A. |
| Matemáticas en Español | $\mathrm{n} / \mathrm{a}$ | Major in Mathematics combined <br> with a Minor in Hispanic Studies | B.Sc. or B.A. |
| Mathematical Contexts | MAC | Minor | B.A. |

## Computer Science requirement

All Mathematics majors and honours students (except those in the Mathematics Education double major program) are required to complete the course CS 211 Programming Methodology.

## Science Elective requirement

Mathematics students pursuing a Bachelor of Science degree must complete three courses (at least nine course credits) of science electives in their degree program. Students in any B.A. degree program are exempt from this requirement.

## Mathematics Electives

Mathematics students (in any program) may not include courses from the list: MAT 190, MAT 191, MAT 192, MAT 196, MAT 197, MAT 198, MAT 199, as mathematics elective credits. Courses at the 460 level are only open to Honours students.

The courses MAT 190, MAT 196, MAT 197 are not accepted as credits for any Science or Mathematics degree. Mathematics courses MAT 190, MAT 191, MAT 192, MAT 196, MAT 197, MAT 198, MAT 199 may not be taken for credit by students who have already passed equivalent course(s) elsewhere. The course MAT 190 may not be taken for credit by any student without permission from their department chair. Students in Science programs, including Mathematics B.A., may receive a maximum of three credits in elementary statistics courses.

## Matemáticas en Español

This is a unique program combining a Major in Mathematics, a Minor in Hispanic Studies as well as one year of Spanish immersion at the Universidad San Francisco de Quito in Ecuador. Contact the Chair of the department for more details.

## Mathematics Honours (99 credits for B.Sc., 84 credits for B.A.)

HONMAT
Normally a student is admitted to an Honours program after completing a minimum of 12 credits in Mathematics courses with an average of at least $70 \%$ and having achieved an average of $65 \%$ in all courses taken at Bishop's.

To continue in an Honours program the student must obtain an average of at least $70 \%$ in Mathematics courses in each academic year.

In order to graduate with a Mathematics Honours degree, the student must have an overall average of $70 \%$ in all Mathematics courses.

## Requirements:

U1 (normally): MAT 191, MAT 192, ENG 116*, Humanities 1xx option*, PHY 191 \& PHY 192 (for B.Sc. only).
MAT 108, MAT 200, MAT 206, MAT 207, MAT 209, MAT 220, CS 211, MAT 310, MAT 313, MAT 314, MAT 315, MAT 317, MAT 322, MAT 323
6 optional credits of Mathematics courses
at the 100 level or higher,
9 optional credits of Mathematics courses at the 300 level or higher,
6 optional credits of Mathematics courses at the 400 level or higher,
6 optional credits of Mathematics courses at the 460 level, 3 credits to satisfy the Arts and Science requirement.
B.Sc. students must include at least 9 additional Science credits among their options.
*Students with a CEGEP DEC or mature students will be granted exemption credits for these courses.

Total credits:
B.Sc.: $\quad 72$ Mathematics, 6 Physics, 3 Computer Science, 9 Science options, 6 Humanities, 3 Arts and Science options, 21 credits of free electives
B.A.: $\quad 72$ Mathematics, 3 Computer Science, 6 Humanities, 3 Arts and Science options, 36 credits of free electives

## Recommended schedule:

Fall Winter
Year 1
(for students in a four-year program or lacking some CEGEP requirements)

|  | MAT 191 | MAT 192 |
| :--- | :--- | :--- |
|  | PHY 191 (B.Sc. students) | PHY 192 (B.Sc. students) |
|  | ENG 116 |  |
| elective (B.A. students) |  |  |
| elective |  |  |
| elective | Humanities electives <br> elective (B.A. students) <br> elective <br> elective |  |
| Year 2 | MAT 200 | MAT 220 |
|  | MAT 206 | MAT 207 |
|  | MAT 108 | MAT 209 |
|  | CS 211 | elective |
|  | elective | elective |
| Year 3 | MAT 1xx | MAT 1xx |
|  | MAT 313 | MAT 314 |
|  | MAT 322 | MAT 323 |
|  | MAT 3xx |  |
|  | elective | MAT 3xx |
| Year 4 | MAT 315 | elective |
|  | MAT 310 | MAT 317 |
|  | MAT 4xx | MAT 3xx |
|  | MAT 46x | MAT 4xx |
|  | Elective | MAT 46x |
|  |  | Elective |

This schedule is provided as a recommendation only. The order in which the courses are taken is subject to change. Students are encouraged to consult the Chair of the department before registering for their courses. The code MAT nxx refers to any 3 -credit MAT course at the n -hundred level or higher.

## Mathematics Major (81 credits for B.Sc., 66 credits for B.A.)

## Requirements:

U1 (normally) : MAT 191, MAT 192, ENG 116*, Humanities 1xx option*, PHY 191 \& PHY 192 (for B.Sc. only)
MAT 108, MAT 200, MAT 206, MAT 207, MAT 209, CS 211, MAT 310, MAT 313, MAT 314, MAT 315, MAT 322
3 credits from the list \{MAT 202, MAT 203 OR MAT 220\}
6 optional credits of Mathematics courses at the 100 level or higher, 9 optional credits of Mathematics courses at the 300 level or higher. 3 credits to satisfy the Arts and Science requirement.
B.Sc. students must include at least 9 additional Science credits among their options.
*Students with a CEGEP DEC and mature students will be granted exemption for these courses.

Total credits:
B.Sc.: 54 Mathematics, 3 Computer Science, 6 Physics, 6 Humanities,
9 Science options, 3 Arts and Science options, 39 credits of free electives.
B.A.: $\quad 54$ Mathematics, 3 Computer Science, 6 Humanities, 3 Arts and Science options, 54 credits of free electives.

Recommended schedule:

|  | Fall | Winter |
| :---: | :---: | :---: |
| (for students in a four-year program or lacking some CEGEP requirements) |  |  |
|  | MAT 191 | MAT 192 |
|  | PHY 191 (B.Sc. students) | PHY 192 (B.Sc. students) |
|  | ENG 116 | Humanities elective |
|  | elective (B.A. students) | elective (B.A. students) |
|  | elective | elective |
|  | elective | elecive |
| Year 2 | MAT 200 | MAT \{202 or 203 or 220\} |
|  | MAT 206 | MAT 207 |
|  | MAT 108 | MAT 209 |
|  | CS 211 | elective |
|  | elective | elective |
| Year 3 | MAT 1xx | MAT 1xx |
|  | MAT 313 | MAT 314 |
|  | MAT 322 | MAT 3xx |
|  | elective | elective |
|  | elective | elective |
| Year 4 | MAT 315 | MAT 3xx |
|  | MAT 310 | MAT 3xx |
|  | elective | elective |
|  | elective | elective |
|  | elective | elective |

This schedule is provided as a recommendation only. The order in which the courses are taken is subject to change. Students are encouraged to consult the Chair of the department before registering for their course. The code MAT nxx refers to any 3-credit MAT course at the n-hundred level or higher.

## Mathematics Minor; B.Sc., B.A. (30 credits)

U1 (normally): MAT 191, MAT 192.
MAT 206, MAT 207, MAT 108, MAT 209 or MAT 200 plus 12 additional mathematics credits, including at least 6 credits at the 300 level or higher.

## Minor in Mathematical Contexts; B.A. (30 credits) <br> MINMAC

The ancient, rich, and universal endeavor which is mathematics underlies all of science and engineering. Increasingly however, mathematical contexts are entwined in the fabric of modern humanistic studies.

The mathematics of social choice is enlightening the study of politics, sociology, and anthropology. The modern mathematics of management science is essential not only in the world of Business and Economics, but also to the work of human geographers who rely on mathematical modeling. Mathematical contexts reach even to the creative arts. Here new geometries, elliptic, hyperbolic, and most recently, fractal, are providing fresh and exciting sources of pattern and inspiration, the raw materials of the visual artist.

Statistics are encountered daily in every media, while statistical analyses have invaded every facet of modern life. Indeed, if for no other reason, educated persons today must understand mathematical concepts for the critical evaluation of data. Such is required in order to avoid deception and bogus claims based on false or misleading representations of statistics. Finally, the information age has given new context to an ancient mathematics: coding theory. From data encryption to internet security, mathematics is the context of modern human communication.

Many students of the Liberal Arts and Humanities, Education, and the Social Sciences, come to the discipline of Mathematics relatively late. Recently convinced of the necessity of broadening the mathematical context of their education, they nevertheless now face a language barrier. Not having pursued mastery of the high-school "advanced math" curriculum, or having gone "rusty" from lack of recent use, they now find the language of mathematics, that of quantitative reasoning, unfamiliar, foreign, and even intimidating.

It is for such students that the Minor in Mathematical Contexts is intended. Here mathematical concepts are developed and analytical thinking is employed to systematically study patterns (the raw materials of mathematics) discovered in diverse fields of study. The emphasis will be on mathematical context and thinking; not on techniques, computations, and prerequisite skills. An adult willingness to think deeply, and academic admission to Bishop's University, are the only prerequisites. In no way should these courses be confused with the "remediation" courses of other institutions: rectifying shortcomings in algebraic skills is not the goal. Rather, developing analytical problem solving skills in mathematical contexts is the objective. Successful students will find, incidentally, that their Bishop's B.A. degree has been significantly enhanced by this innovative program of study for citizens of the 21 st century.

The minor in Mathematical Contexts can be added to any degree program and consists of the following courses:
MAT 200 Discrete Mathematics
MAT 108 Matrix Algebra
PHY 101 Statistical Methods
MAT 198* Calculus I (for Life Sciences), prerequisite: MAT 190 recommended
MAT 199* Calculus II (for Life Sciences), prerequisite: MAT 198

* (Remedial Precalculus and Algebra courses are available)

An additional 15 course lecture credits in Mathematics must be chosen from among:
MAT 100 Excursions in Modern Mathematics*
MAT 101 Further Excursions in Modern Mathematics**
MAT 104 History of Mathematics
MAT 209 Linear Algebra, prerequisite: MAT 108
MAT 202 Modern Geometry: Euclidean to Fractal, prerequisite: MAT 200
MAT 220 Further Discrete Mathematics, prerequisite: MAT 200
MAT 203 Number Theory
MAT 322 Introduction to Modern Algebra I, prerequisite: MAT 200, MAT 209
MAT 323 Introduction to Modern Algebra II, prerequisite: MAT 322
Notes: The two courses, PMA 160 and PMA 260 may replace PHY 101 in the required list of courses. A student may not graduate with a double minor in mathematics.

* The science version of this course, MAT 110 is also accepted.
${ }^{* *}$ The science version of this course, MAT 111 is also accepted.


## Mathematics Electives

Mathematics students (in any program) may not include courses from the list: MAT 190, MAT 191, MAT 192, MAT 196, MAT 197, MAT 198, MAT 199, as mathematics elective credits. Courses at the 460 level are only open to Honours students.

The courses MAT 190, MAT 196, MAT 197 are not accepted as credits for any Science or Mathematics degree. Mathematics courses MAT 190, MAT 191, MAT 192, MAT 196, MAT 197, MAT 198, MAT 199 may not be taken for credit by students who have already passed equivalent course(s) elsewhere. The course MAT 190 may not be taken for credit by any student without permission from their department chair. Students in Science programs, including Mathematics B.A., may receive a maximum of three credits in elementary statistics courses.

## List of Courses

Note: See also the list of cognate courses at the end of this section.

## MAT 100 Excursions in Modern Mathematics

An introduction to modern applied mathematics: social choice, management science, growth, symmetry, and descriptive statistics. Not intended as a numeracy course, nor for the remediation of algebraic shortcomings: computational complexity is minimal, and math prerequisites are absent. Instead, the methodology of mathematics is addressed: the use of unambiguous language and simplification to model practical problems, the types of answers the discipline can provide, and the notions of generalization and "open" problems. The course will allow the student to develop a sense of the nature of mathematics as a discipline, and an appreciation of its role in the modern world.
Note: Science students must enrol in MAT 110 instead of this course. Students may only receive credit for one of MAT 100 or MAT 110.
MAT 101 Further Excursions in Mathematics 3-3-0 Further topics in modern applied mathematics. A continuation of the style and subjects in MAT 100, this course is also not intended to redress deficiencies in numeracy, nor does it have any mathematical prerequisites. Topics may include growth models, game theory, linear programming, fractal geometry, coding theory, non-Euclidean geometry and selected current readings.
Note: Science students must enrol in MAT 111 instead of this course. Students may only receive credit for one of MAT 101 and MAT 111.

MAT 103 Environmental Modeling
3-3-0
The course will teach students to apply mathematical modeling principles and techniques to problems arising in the environmental sciences. Students will gain some understanding of basic mathematical models and techniques employed in the environmental sciences, and will practice the important skill of interpreting the results obtained from these models. The course will consist of a topics based, interdisciplinary approach to basic mathematical modeling. Topics covered may include ground water transport, air pollution such as modeling of groundlevel ozone, hazardous materials disposal modeling, mathematical models for population growth, environmental economics, oil spill mitigation and avoidance, micro-climate weather predication, or others. The mathematics involved will be largely elementary, at a level suitable for a high-school graduate with credit for a university-preparatory level mathematics course.
MAT 104 History of Mathematics
3-3-0
This course is designed to help history, philosophy, and education students come to a deeper understanding of the mathematical side of culture by means of writing short essays. Mathematics majors acquire a philosophical and cultural understanding of their subject by means of doing actual mathematics problems from different eras. Topics may include perfect numbers, Diophantine equations, Euclidean construction and proofs, the circle area formula, the Pell equation, cubic equations, the four square theorem, quaternions, and Cantor's set theory. The philosophical themes of infinity and Platonism recur repeatedly throughout the course.

## MAT 108 Matrix Algebra

3-3-0
Operations on matrices, transpose and inverse. Systems of linear equations. Determinants. Linear transformations. Eigenvalue and eigenvectors. Vector spaces. Bases and dimension. Rank and nullity. Applications.

## MAT 110 Excursions in Modern Mathematics

3-3-0
This is the same course as MAT 100 but it is intended that science students would enrol in this course and complete assignments that are more appropriate to their needs.
NOTE: Students may only receive credit for one of MAT 100 or MAT 110.
MAT 111 Further Excursions in Mathematics
3-3-0
This is the same course as MAT 101 but it is intended that science students would enrol in this course and complete assignments that are more appropriate to their needs.
Note: See MAT 101. Students may only receive credit for one of MAT 101 and MAT111.
MAT $190 \quad$ Precalculus Mathematics 3-3-0
Review of algebra. Sets, Functions, graphs. Slope and equation of a straight line. Equation of a circle. Exponential and logarithm functions with applications. Arithmetic and geometric progressions. Permutations and Combinations.
Students who have received credit for an equivalent course may not receive credit for this course.
Students who have received credit for any math class numbered MAT 19X or higher may not receive credit for this course.
Students may only receive credit for this course with consent of their Departmental Chair.
MAT 191 Enriched Calculus I 3-3-0
Elementary functions, limits, continuity. The derivative, differentiability, mean value theorem. Maxima and minima, Fermat's theorem, extreme value theorem, related rates, L'Hospital's rule. Applications. Riemann sums, definite integral. Emphasis is on an analytical understanding.
This course is for students who lack collegial MAT 103 or the equivalent.
This course is required for all students in Mathematics, Physics and Computer Science.
Students who have received credit for an equivalent course taken elsewhere may not register for this course.
Credit will be given for only one of MAT 191, MAT 197, and MAT 198
MAT 192 Enriched Calculus II $\mathbf{3 - 3 - 0}$
Area. The definite integral. The Fundamental Theorem of Calculus. Techniques of integration. Volumes, centres of mass, moments of inertia, arclength and other applications of integration. Mean value theorem for integrals. Emphasis is on analytical understanding.
Prerequisite: MAT 191 or a grade of at least 70\% in MAT 198 or 80\% in MAT 197 This course is for students who lack Collegial Mathematics NYB or the equivalent. This course is required for all students in Mathematics, Physics and Computer Science.
Students who have received credit for an equivalent course taken elsewhere may not register for this course.
Credit will be given for only one of MAT 192 and MAT 199

MAT 196 Finite Mathematics for Business Students
3-3-0
This course aims to familiarize business students with the fundamentals of linear algebra required by disciplines such as Statistics, Finance, Management, Economics, and others. Topics covered in this course include: review of high school algebra, arithmetic and geometric sequences, sums of sequences, inequalities in one and two variables, linear equations, introduction to matrices, matrix algebra: addition, multiplication, inverses, and Gaussian elimination.
Prerequisite: MAT 190 or equivalent or permission of instructor.
MAT 197 Calculus for Business Students
3-3-0
This course aims to familiarize business students with the fundamentals of calculus required by disciplines such as Statistics, Finance, Management, Economics, and others. Topics covered include: introduction to limits, differential calculus with one variable with applications, functions with several variables, partial derivatives, area under a curve.
Prerequisite: MAT 196 or the equivalent or consent of the instructor.
MAT $198 \quad$ Calculus I (for Life Sciences)
3-3-0
Elementary functions, limits, tangent line approximations. The derivative, and differentiation rules. Continuous optimization in one variable. Applications to Biology, Chemistry, Medicine and Environmental Science. The emphasis is on conceptual understanding and computational competency.
This course is intended for students who lack collegial Mathematics NYA or the equivalent.
Students who have received credit for an equivalent course taken elsewhere may not register for this course.
Credit will be given for only one of MAT 191, MAT 197, and MAT 198
MAT $199 \quad$ Calculus II (for Life Sciences)
3-3-0
The definite integral, area, integration by substitution and parts. Applications to Biology, Chemistry, Medicine and Environment Science. Separable and linear differential equations. The emphasis is on conceptual understanding and computational competency.
Prerequisite: MAT 198 or MAT 191 or the equivalent, or a grade of at least $80 \%$ in MAT 197
This course is intended for students who lack collegial Mathematics NYB or the equivalent.
Students who have received credit for an equivalent course taken elsewhere may not register for this course.
Credit will be given for only one of MAT 192 and MAT 199
MAT $200 \quad$ Introduction to Discrete Mathematics 3-3-0
Combinatorics. Propositional logic. Induction. Sets. Quantifiers. Recursion relations.
MAT 202 Modern Geometry: Euclidean to Fractal 3-3-0
Particularly recommended for elementary and high-school teachers. Euclidean, elliptic and hyperbolic geometries, and applications: modern graphics, fractal images and the work of analytical artists like M.C. Escher.
This course must be taken concurrently with Mathematics laboratory 202 (MAL 202)

Prerequisite: MAT 200
Corequisite: MAL 202

## MAL 202 Mathematics Lab:

Modern Geometry by Laboratory Explorations
1-0-3
Geometry explorations using Geometer's Sketchpad software. Projects will enhance the learning of the curriculum of the course MAT 202 which must be taken concurrently.
Corequisite: MAT 202
MAT 203 Number Theory
3-3-0
A classical discipline, number theory has become the spectacularly successful language of modern cryptography and coding theory. This course is a gentle introduction to the classical theory and modern applications. Topics may include: unique factorization and congruences, group of integers modulo n and its units, Fermat's little theorem, Fermat's last theorem, Euler's function, Wilson's theorem, Chinese remainder theorem, quadratic reciprocity, Gaussian integers.

## Prerequisite: MAT 200

MAT 206 Advanced Calculus I
3-3-0
Vector-valued functions,parametric curves, arc-length, curvature. .Functions of 2 and 3 variables. Partial Derivatives, directional derivatives, differentials. Lagrange multipliers. Multiple integrals and applications. Change of variables and Jacobians.
Prerequisite: MAT 192 or a grade of at least $80 \%$ in MAT 199
Corequisite: MAT 108

MAT 207 Advanced Calculus II 3-3-0
Line integrals. Surface integrals. Green's theorem. Divergence theorem. Stoke's theorem. Differential operator. Sequences and series. Taylor series and polynomials. Power series.
Prerequisite: MAT 206

## MAT 209 Linear Algebra 3-3-0

Diagonalization. Inner product spaces. Gram-Schmidt process. Change of basis. Complex vector spaces. Systems of differential equations. Applications.
Prerequisite: MAT 108
MAT 220 Further Discrete Mathematics 3-3-0
Relations: functions, equivalence relations, partially ordered sets. Zorn's lemma. The axiom of choice. Cardinality and counting. Graph theory. Solving recurrence relations.
Prerequisite: MAT 200
MAT 310 Ordinary Differential Equations
3-3-0
Techniques for solving first and second order linear differential equations. Systems of first order equations. Power series solutions for second order equations including the method of Frobenius. Various applications of differential equations.
Prerequisite: MAT 192 or a grade of at least $80 \%$ in MAT 199
See PHY 270
Students may not take this course for credit if they have received credit for PHY 270

## MAT 311 Mathematical Methods of Physics

Discussion of series solutions in connection with the gamma function and Bessel, Legendre and hypergeometric functions. Laplace transform with applications. Elementary trigonometric Fourier series and boundary value problems. Certain partial differential equations of physics.
Prerequisites: MAT 207 and MAT 310
See PHY 371
Students may not take this course for credit if they have received credit for PHY 371
MAT 313 Introduction to Probability $\mathbf{3 - 3 - 0}$
Discrete and continuous distributions. Moments, mean and variance. Moment generating functions. Multivariate distributions. Laws of large numbers. Sampling distributions. Central Limit Theorem.
Prerequisite: MAT 206
MAT 314 Introduction to Mathematical Statistics
3-3-0
Further sampling distributions: Chi-square, t and F . Estimation, confidence intervals. Hypothesis testing, theory and practice. Regression and correlation. Analysis of Variance. Nonparametric methods.
Prerequisite: MAT 313

## MAT 315 Real Analysis I 3-3-0

Real number system. Completeness theorem. Sequences of real numbers. Bolzano-Weierstrass Theorem. Cauchy sequences. Series of real numbers. Limits. Continuous functions. Differentiation. Mean-Value Theorem. L'Hospital's rule. Riemann integration. Fundamental Theorem of Calculus.
Prerequisite: MAT 207

## MAT 316 Real Analysis II

3-3-0
The generalized Riemann integral (improper integrals). Sequences and series of functions. Pointwise and uniform convergence. Power series. Taylor series. Classical theorems (integration, differentiation, Weierstrass M-test. CauchyHadamard theorem). Equicontinuity. Ascoli-Arzela theorem. Stone-Weierstrass approximation theorem).
Prerequisite: MAT 315
MAT 317 Complex Analysis $\quad$ 3-3-0
Sequences and series of complex numbers. Functions. Limits. Continuous functions. Analytic functions. Cauchy-Riemann equations. Contour integration. Cauchy's theorem. Cauchy integral formula. Taylor and Laurent series. Singularities and residues.
Prerequisite: MAT 207
MAT 322 Introduction to Modern Algebra I
3-3-0
Introduction to the theory of groups. Symmetries of a square. The dihedral groups. Cyclic groups, permutation groups. Isomorphisms, external and internal direct sums. Cosets and Lagrange's theorem. Factor groups.
Prerequisite: MAT 200 and MAT 209
MAT 323 Introduction to Modern Algebra II 3-3-0
Additional topics from group theory. Introduction to Ring Theory. Integral Domains and Fields. Factorization of Polynomials. Finite Fields. Introduction to Algebraic Coding Theory.
Prerequisite: MAT 322

MAT 324 Cryptography
3-3-0
Cryptography is a key technology in electronic security systems. The aim of this course is to explain the basic techniques of modern cryptography and to provide the necessary mathematical background. Topics may include: the classical encryption schemes, perfect secrecy, DES, prime number generation, public-key encryption, factoring, digital signatures, quantum computing.
Prerequisites: MAT 200, MAT 108
MAT 325 Numerical Methods
3-3-0
Numerical techniques for problem solving in Mathematics, Computer Science and Physics. Error analysis, roots of equations, QR-algorithm, interpolation, Numerical approaches to differentiation, integration and solutions of differential equations.
Prerequisites: CS 211, MAT 207, MAT 108.
Note: See CS 375 and PHY 375
Students may not take this course for credit if they have received credit for CS 375 or PHY 375.
MAT 326 Mathematical Problem Solving 3-3-0
A course designed to foster problem solving abilities in mathematics. New mathematical concepts will be introduced to the student through solving specific problems. Problems will be taken from Putnam and Mathematics Olympiad competitions and from actuarial examinations.
Prerequisites: MAT 200, MAT 207, MAT 108

## MAT 401 Vector Analysis

3-3-0
Algebra of vectors. Vector-valued functions. Vector differential and integral calculus. Theorems of Gauss, Green and Stokes. Differential forms. Differentiability in Rn. Inverse function theorem.
Prerequisite: MAT 207
MAT 402 Tensor Analysis 3-3-0
General curvilinear coordinates. Differential forms. Bilinear forms and tensors of rank two. Tensor algebra and tensor calculus.
Prerequisite: MAT 401
MAT 405 Calculus of Variations
Euler-Lagrange equations for constrained and unconstrained single and double Euler-Lagrange equations for constrained and unconstrained single and double
integral variational problems. Parameter-invariant single integrals. General variational formula. The canonical formalism. Hilbert's independent integral. Hamilton-Jacobi equation and the Caratheodory complete figure. Fields and the Legendre and Weierstrass sufficient conditions.
Prerequisites: MAT 207, MAT 310
See PHY 376
Students may not take this course for credit if they have received credit for PHY 376
MAT 406 Differential Geometry
3-3-0
Curves in 3-space. Euclidean motions, surface theory. Introduction to differential manifold, Gaussian and mean curvature, imbedding conditions. Geodesics, parallel transport and the Gauss-Bonnet Theorem.
Prerequisite: MAT 207, MAT 310
MAT 414 Regression and Analysis of Variance
3-3-0
Topics in this course will include simple, multiple, polynomial and other nonlinear regression; Analysis of variance and covariance. The course may include data sets from case studies. Students will gain some facility with certain mathematics software packages.
Prerequisite: MAT 314

## MAT $421 \quad$ Graph Theory

3-3-0
This course provides an introduction to the combinatorial, algoritmic and algebraic aspect of graph theory. There will be a brief refresher of mathematical proof techniques. Topics will include paths and circuits, graph trees, planar graphs, graph colourings, and the Max Floss-Min Cut Theorem. Programming Assignments to implement graph algorithms (in Maple or Octave for example) will be required. An introduction to the combinatorial, algorithmic and algebraic aspects of graph theory.
Prerequisite: MAT 200
See CS 571. Credit will be given for only one of MAT 421 and CS 571.
MAT 431 Metric Spaces and Topology
3-3-0
Sets, functions, images and preimages. Topological spaces, metric spaces. Open and closed sets, accumulation points, continuous functions, homeomorphisms. Some topological properties, particularly connectedness and compactness.
Pre-requisite: MAT 315, or consent of the instructor.

## MAT 446 Independent Study

3-3-0
This course aims to familiarize mathematics students with fundamental knowledge, skills and techniques in a chosen field of mathematics. A presentation will constitute a portion of the final grade.
Offered by arrangement
$46 x$ level courses are for Honours students only
MAT 460 Topics in Algebra I
3-3-0
A selection is made to suit the interests of students from such topics as: ring theory, introduction to homological algebra, introduction to group representations or commutative algebra.
Prerequisite: MAT 209, MAT 323 or consent of instructor.
Offered by arrangement.
MAT 461 Topics in Algebra II
3-3-0
A selection is made to suit the interests of students from such topics as: ring theory, introduction to homological algebra, introduction to group representations or commutative algebra.
Prerequisite: MAT 209, MAT 323 or consent of instructor.
Offered by arrangement.
MAT 462 Topics in Analysis I 3-3-0
Normed spaces, Banach and Hilbert spaces, Hilbert space operators, Normed algebras, Stone-Weierstrass theorem. Special function spaces.
Prerequisite: MAT 316
MAT 463 Topics in Analysis II $\quad$ 3-3-0
Theory of integration. Measurable functions, measures and integrable functions. Lebesque spaces. Models of convergence. Decomposition and generation of measures. Product measures.
Prerequisite: MAT 316
Offered by arrangement.
MAT 464 Topology 3-3-0
Offered by arrangement.
MAT 465 Topology 3-3-0
Offered by arrangement.
MAT 466 Independent Studies I $\quad \mathbf{3 - 0 - 0}$
Open to final-year honours students by arrangement with the department. A presentation will constitute a portion of the final grade.
MAT 467 Independent Studies II $\mathbf{3 - 0 - 0}$
Open to final-year honours students by arrangement with the department. A presentation will constitute a portion of the final grade.
See MAT 466
MAT 480 Honours Research Dissertation
6-0-0
Each student is required to carry out an original research project under the supervision of a faculty member. A plan outlining the proposed research must be submitted for approval during the first four weeks of the course. Each student will present his/her results in the form of a seminar and a written dissertation.
MAT 524 Cryptography 3-3-0
Cryptography is a key technology in electronic security systems. The aim of this course is to explain the basic techniques of modern cryptography and to provide the necessary mathematical background. Topics may include: the classical encryption schemes, perfect secrecy, DES, prime number generation, public-key encryption, factoring, digital signatures, and quantum computing. Programming Assignments to implement certain encryption algorithms (in Maple or Octave, for example) may be required.
Prerequisite: MAT 108, MAT 200 and CS 211 or equivalent from elsewhere, or the permission of the instructor.
See MAT 324
MAT 529 Mathematical Methods for Computer Science 3-3-0
This course will provide opportunity for graduate students with weaker mathematical backgrounds to upgrade their skills in the mathematical techniques and concepts required in graduate courses in Computer Science such as: CS 502 Digital Toplogy \& Mathematical Morphology, CS 503 Data Visualization, CS 504 Programming Languages for Data Analysis, CS 505 Data Mining, CS 506 Parallel Models and Algorithms, CS 507 Statistical Learning, CS 509 Pattern Recognition, CS 512 Computer Games Design, CS 516 Volumetric Image Analysis \& Visualization, CS 562 Mathematical Models in Image Processing, CS 563 Image Analysis.
Prerequisite: MAT 108, MAT 192, and MAT 200 or equivalent from elsewhere, or the permission of the instructor.

## Cognate Courses:

The following courses may count as 200-level Mathematics options:

## EMA 262 Mathematical Economics I <br> PHY 208 Introduction to Mechanics

The following courses may count as 300 -level Mathematics options:
CS 308
CS 317
CS 455 Theoretical Aspects of Computer Science
EMA 361 Econometrics II
EMA 362 Mathematical Economic II
PHY 318 Advanced Mechanics

## Physics \& Astronomy

## Faculty

Ariel Edery,
B.Sc. (McGill), M.Sc. (Queen's), Ph.D. (Montréal); Professor

Valerio Faraoni,
B.Sc. (University of Pavia, Italy), M.Sc., Ph.D. (International School for Advanced Studies, Italy); Professor
Jean-Sebastien Gagnon,
B.Sc. (Laval), M.Sc., Ph.D. (McGill);

Adjunct Professor
Faycal Hammad,
B.Sc., M.Sc., Ph.D. (A. Mira-Bejaia);

Adjunct Professor
Patrick Labelle,
B.Sc. (Laval), Ph.D. (Cornell);

Adjunct Professor (Champlain Regional College)
Anca Nedelcescu,
B.Sc. (West University of Timisoara), M.Sc., Ph.D. (Sherbrooke); Adjunct Professor
Lorne Nelson,
B.Sc. (McGill), M.Sc., Ph.D. (Queen's); Professor,

Chair of the Department
Jason Rowe,
B.Sc. (Toronto), M.Sc., Ph.D. (UBC); Associate Professor Canada Research Chair (Tier II)
Sylvain Turcotte,
B.Sc., M.Sc., Ph.D. (Montreal); Adjunct Professor

## Program Overview

Physics is often regarded as the cornerstone of the Natural Sciences. It encompasses a diverse range of disciplines including astronomy and astrophysics, photonics, electronics, classical and quantum mechanics, statistical mechanics, particle physics, and solid state physics. The BSc Major program provides students with a fundamental understanding of physics. The highest level of specialization at the undergraduate level is the BSc Honours program. It prepares students for direct entry into graduate work in physics (leading to an MSc or PhD degree). Students may be admitted into the Honours program after one year is completed in the Physics Major program.

The Master of Science (MSc) program is designed to give students a much deeper appreciation of physics while at the same time training them to become independent researchers and scientists. Graduate supervision is available in a wide variety of disciplines including astronomy, astrophysics, exoplanetary science, theoretical cosmology and gravitational theory, and particle physics.

## First-year Science Core requirements

All Physics students are required to take six course credits of Introductory Physics (PHY 191, PHY 192), six course credits of Introductory Calculus (MAT 191, MAT 192), and six course credits of Introductory Chemistry (CHM 191, CHM 192), normally in their first year. Students with a Québec collegial diploma (DEC) shall be granted advanced credit for these courses if they have completed the Pure Science program. If any of these equivalent courses were not completed at CEGEP, they must be completed
at Bishop's and advanced credits shall be reduced accordingly. Students with a Québec collegial diploma (DEC) may be exempted from MAT 108 (Matrix Algebra) if they obtained high standing in an equivalent course at CEGEP. Students would have to replace this course if they received an exemption.

## Humanities requirement (BSc students only)

Students must complete six course credits of humanities studies, normally in their first year at Bishop's. Students who have a Québec Collegial Diploma (DEC), students admitted as "Mature Students", and 2nd Bachelor's degree students are all exempt from this requirement. The Humanities requirement must include ENG 116 Effective Writing, or another English course (code ENG) and one additional course selected from Humanities courses in Classical Studies, English, History, Liberal Arts, Philosophy or Religion (courses coded CLA, ENG, HIS, LIB, PHI, or REL respectively).

## Arts and Science requirement (BSc students only)

In addition to the Humanities requirement above, all students are required to complete at least three credits in either the Division of Humanities or the Division of Social Sciences. Students with program combinations which require more than 72 credits are exempt from this requirement.

Please refer to the Natural Sciences Division page for information on Divisional Requirements.

## Laboratory Courses (BSc students only)

When any lecture course (e.g., PHY 206) also has an associated laboratory course (e.g. PHL 206), both the lecture and laboratory courses should be taken concurrently. Laboratory credits thus obtained are in addition to the total required lecture credits specified below for the program.

## Undergraduate Programs

## Physics Honours ( 117 credits) HONPHY

## Entrance Requirements for Honours Program:

A student will normally be admitted to the Honours program after obtaining at least a $70 \%$ average on all required second-year (200-level) physics and mathematics courses. In order to complete an Honours degree, a student must normally obtain an average of at least $65 \%$ in required physics courses in each academic year.

## Requirements:

First year Science core requirements as listed above*. The following courses are also required for the Physics Honours: PHY 101, PHY 206, PHY 207, PHY 208, PHY 270, PHY 315, PHY 316, PHY 317, PHY 318, PHY 319, PHY 320, PHY 321, PHY 361, PHY 371, PHY 462, additional 400-level course, PHY 480; MAT 108, MAT 206, MAT 207, MAT 209, MAT 317; CS 211.

PHYSICS HONOURS DEGREE
Two possible sequences are suggested below

|  | SEQUENCE \#1 |  | SEQUENCE \#2 |  |
| :---: | :---: | :---: | :---: | :---: |
| Year/Semester | FALL | WINTER | FALL | WINTER |
| U1 | First-year science core credits OR DEC in Pure or Appliled Science |  |  |  |
| U2 | PHY 101 <br> PHY 206 / PHL 206 <br> PHY 270 <br> MAT 108 <br> MAT 206 | PHY 208 <br> PHY 207 <br> MAT 207 <br> MAT 209 <br> Option 1* | PHY 101 <br> PHY 206 / PHL 206 <br> PHY 270 <br> MAT 108 <br> MAT 206 | PHY 208 <br> PHY 207 <br> MAT 207 <br> MAT 209 <br> Option 1* |
| U3 | PHY 318 <br> PHY 361 <br> CS 211 / CSL 211 <br> PHL 385 <br> Option 2* <br> Option 5* | PHY 317 <br> PHY 315 <br> PHY 462 <br> PHL 386 $\ddagger$ <br> Option 3* <br> Option 4* | MAT 317 <br> PHY 320 <br> PHY 316 <br> CS 211 / CSL 211 <br> PHL 387 <br> Option 2* | PHY 321 <br> PHY 319 <br> PHY 371 <br> PHY 466 ${ }^{\dagger}$ <br> PHL 388 $\ddagger$ <br> Option 4* |
| U4 | MAT 317 <br> PHY 320 <br> PHY 316 <br> PHY 480 <br> PHL 387 $\ddagger$ <br> .......... | PHY 321 <br> PHY 319 <br> PHY 371 <br> PHY 466 $\dagger$ <br> PHY 480 <br> PHL 388 | PHY 318 <br> PHY 361 <br> PHY 480 <br> PHL 385 $\ddagger$ <br> Option 3* <br> .......... | PHY 317 <br> PHY 315 <br> PHY 462 <br> PHY 480 <br> PHL 386 $\ddagger$ <br> Option 5* |

* Or one other 400-level course.
$\ddagger$ One-semester lab course ( 6 hours per week) worth 2 credits.
* At least 3 credits must be taken in either the Division of Humanities or Social Sciences if a student's program combinations require less than 75 lecture credits.

PHYSICS MAJOR DEGREE
Two possible sequences are suggested below

|  | SEQUENCE \#1 |  | SEQUENCE \#2 |  |
| :---: | :---: | :---: | :---: | :---: |
| Year/Semester | FALL | WINTER | FALL | WINTER |
| U1 | First-year science core credits OR DEC in Pure or Applied Science |  |  |  |
| U2 | PHY 101 <br> PHY 206 / PHL 206 <br> PHY 270 <br> MAT 108 <br> MAT 206 | PHY 208 <br> PHY 207 <br> MAT 207 <br> MAT 209 <br> Option 1* | PHY 101 <br> PHY 206 / PHL 206 <br> PHY 270 <br> MAT 108 <br> MAT 206 | PHY 208 <br> PHY 207 <br> MAT 207 <br> MAT 209 <br> Option 1* |
| U3 | PHY 318 <br> PHY 361 <br> CS 211 / CSL 211 <br> PHL 385: <br> Option 2* <br> Option 3* | PHY 317 <br> PHY 315 <br> PHL 386 $\ddagger$ <br> Option 4* <br> Option 5* <br> Option 6* | PHY 320 <br> PHY 316 <br> CS 211 / CSL 211 <br> PHL 387\% <br> Option 2* <br> Option 3* | PHY 321 <br> PHY 319 <br> PHY 371 <br> PHL 388*: <br> Option 4* <br> Option 5* |
| U4 | PHY 320 <br> PHY 316 <br> PHL 387\% <br> Option 7* <br> Option 8* <br> .......... | PHY 321 <br> PHY 319 <br> PHY 371 <br> PHL 388 $\ddagger$ <br> Option 9* <br> Option 10* | PHY 318 <br> PHY 361 <br> PHL 385* <br> Option 6* Option 7* <br> .......... | PHY 317 <br> PHY 315 <br> PHL 386 <br> Option 8* <br> Option 9* <br> Option 10* |

$\ddagger$ One-semester lab course ( 6 hours per week) worth 2 credits.

* At least 3 credits must be taken in either the Division of Humanities or Social Sciences if a student's program combinations require less than 75 lecture credits.

Total: $\mathbf{5 4}$ lecture-course credits physics, $\mathbf{1 5}$ credits math, 3 credits computer science, 15 elective credits $=\mathbf{8 7}$ lecture-course credits.
Physics labs: PHL 206, PHL 385, PHL 386, PHL 387, PHL 388, Computer Science lab: CSL 211. Total of $\mathbf{1 0}$ lab-course credits.
N.B.: When any lecture course (e.g., PHY 206) also has an associated laboratory course (e.g. PHL 206), both the lecture and laboratory courses must be taken concurrently. Laboratory credits thus obtained are in addition to the total required lecture credits specified above for the program.
*Students with a CEGEP DEC or mature students will be granted advanced credits for these courses as appropriate.

## Physics Major (87 credits)

MAJPHY
A Physics Major is less intensive than the Honours program and does not require any 400-level physics courses or MAT 317.

## Requirements:

First year Science core requirements as listed above*. The following courses are also required for the Physics Major:
PHY 101, PHY 206, PHY 207, PHY 208, PHY 270, PHY 315, PHY 316, PHY 317, PHY 318, PHY 319, PHY 320, PHY 321, PHY 361, PHY 371; MAT 108, MAT 206, MAT 207, MAT 209; CS 211.
Total: $\mathbf{4 2}$ lecture-course credits physics, $\mathbf{1 2}$ credits math, 3 credits computer science,
30 elective credits $=\mathbf{8 7}$ lecture-course credits.
Physics labs: PHL 206, PHL 385, PHL 386, PHL 387, PHL 388,
Computer Science lab: CSL 211.

## Total of $\mathbf{1 0}$ lab-course credits.

N.B.: When any lecture course (e.g., PHY 206) also has an associated laboratory course (e.g., PHL 206), both the lecture and laboratory courses must be taken concurrently. Laboratory credits thus obtained are in addition to the total required lecture credits specified above for the program.
*Students with a CEGEP DEC or mature students will be granted advanced credits for these courses as appropriate.

## Physics Minor (24 credits) MINPHY

A minor in Physics allows students to gain a solid introduction to the subject.

## Requirements:

The following courses are required:
PHY 191, PHY 192, MAT 108, PHY 101, PHY 206, PHY 207, PHY 208 and one other lecture course in Physics selected from 200 and 300 level courses. The total course credit requirement for the minor is $\mathbf{2 4}$ lecture-course credits.
N.B.: When any lecture course (e.g., PHY 206) also has an associated laboratory course (e.g. PHL 206), both the lecture and laboratory courses must be taken concurrently. Laboratory credits thus obtained are in addition to the total required lecture credits specified above for the program.

## Elective Courses (Liberal Science Options)

These courses are open to any students with little or no scientific background.
PHY 111
PHY 112
Physics of Everyday Phenomena
Introduction to Holography
PHY 113 Introduction to Astronomy

## Physics Major and Honours Courses

These courses typically numbers that start at 100 and extend to 399.

Note that 3rd and 4th year physics students may take 400-level courses if they have the prerequisites.

## Physics Honours Courses

Final-year Honours physics courses have numbers that start with 462 and end at 480.

## Graduate Courses

All graduate MSc courses have numbers that start with 500 or above.

## List of Courses

PHY 101 Statistical Methods in Experimental Science 3-3-0 This course is specifically designed to meet the needs of students of physics, chemistry, biology, mathematics, and computer science. Topics include: errors of observation, graphical visualization of data; descriptive analysis, elementary probability, permutations and combinations; the binomial, normal and Poisson distributions; random sampling; testing hypotheses, significance levels, confidence limits, large and small sampling methods; regression and correlation; chi-square test; analysis of variance (ANOVA).
Note: In order for students to obtain credit for both PHY 101 and MAT 314, PHY 101 must be taken first or concurrently. Students who are enrolled in, or who have credit for, PMA 160, BMA 141, or EMA 141 may not enrol in this course.
PHY 111 The Physics of Everyday Phenomena 3-3-1
This course is designed to meet the needs of non-science students by providing them with a practical introduction to physics and science as it is applies to everyday life. Students are assumed to have no background in math or science. By allowing students to practice science through practical demonstrations of physical phenomena and engaging in small-group inquiry and discussion, they will learn to think logically when solving problems, enhance their scientific literacy, and develop their physical intuition. Typical questions that will be addressed include: Why is the sky blue? Why purchase a car with an anti-locking brake system (ABS)? Where is lightning most likely to strike and how can you best protect yourself? How do medical scanning procedures such as MRI work? Does a curve ball really curve or is it an optical illusion?
Note: Students enrolled in a program in the Division of Natural Sciences and Mathematics cannot use this course for science credits.
PHY 112 / FIN 209 Introduction to Holography 3-3-0 This course is designed to give students an introduction to the principles of laser holography (3-D photography) while at the same time providing them with the opportunity to create holograms in the laboratory. Students are assumed to have no background in mathematics or science. Students will make holograms using single and multiple beam reflection and transmission techniques. Special topics related to the making of rainbow, colour, and other types of holograms will be discussed and attention will be given to the application of this medium as a form of visual expression. In addition students will be able to apply their knowledge to create holograms at home (sandbox holography).
Prerequisite: permission of the instructor.
See FIN 209
Students may not take this course for credit if they have received credit for FIN 209 Students enrolled in a program in the Division of Natural Sciences and Mathematics cannot use this course for science credits.

PHY 113 Introduction to Astronomy
3-3-1
An outline of our knowledge of the size, structure, and possible origin of the Universe. Starting with the primitive speculations of the Greeks, the course ends with the theory of the expanding universe and its origin in the -"Big Bang"-.
Prerequisite: Students should have a background in high school mathematics.

## PHY 191 Introductory Physics I (Mechanics)

3-3-0
This course is designed to give students an introduction to classical mechanics. Topics that will be covered include statics, particle kinematics in one and two dimensions, particle dynamics and Newton's Laws, conservation of energy and momentum, and rotational kinematics and dynamics.
Corequisite: MAT 191 or MAT 198.
This course should be taken concurrently with Physics Lab 191 (PHL 191). This course is for students who lack collegial Physics NYA. Students who have received credit for an equivalent course taken elsewhere may not register for this course. Credit will be given for only one of PHY 191, PHY 193 or PHY 199F.
PHL 191 Introductory Physics Laboratory I
1-0-3
A series of experiments in General Physics to complement the material covered in PHY 191.
This course must be taken concurrently with PHY 191. May not be taken for credit if credit has been granted for PHL 193.

## PHY 192 Introductory Physics II

(Electricity and Magnetism)
3-3-0
This course is designed to give students an introduction to electromagnetism and its applications. Topics that will be covered include Coulomb's Law, electric fields, electric potential, capacitance, direct current circuits, magnetism, electromagnetic induction, alternating current circuits, and electromagnetic waves.
Prerequisite: PHY 191, PHY 193, or the permission of the instructor. Corequisite: MAT 192 or MAT 199
This course should be taken concurrently with PHL 192. This course is for students who lack collegial Physics NYB. Students who have received credit for an equivalent course taken elsewhere may not register for this course. Credit will be given for only one of PHY 192, PHY 194 or PHY 199F.
PHL 192 Introductory Physics Laboratory II
1-0-3
A series of experiments in general physics to complement the material covered in PHY 192.
This course must be taken concurrently with PHY 192. May not be taken for credit if credit has been granted for PHL 194.
PHY $193 \quad$ Physics for the Life Sciences I
3-3-0
This course is designed to emphasize topics of particular relevance to the life sciences. Topics that will be covered include: mechanics (statics, kinematics, dynamics, conservation of energy and momentum, rotational motion); fluid dynamics (pressure, elasticity, viscosity, diffusion); and thermodynamics (temperature, heat transport, kinetic theory of gases). Concepts and problemsolving skills are emphasized.
Corequisite: MAT 191 or MAT 198.
This course should be taken concurrently with PHL 193. This course is for students who lack collegial Physics NYA.
Students who have received credit for an equivalent course taken elsewhere may not register for this course.
Credit will be given for only one of PHY 191, PHY 193, and PHY $199 F$.
PHL 193 Physics for the Life Sciences Laboratory I $\mathbf{1 - 0 - 3}$ A series of experiments in college physics to complement the material covered in PHY 193.
This course must be taken concurrently with PHY 193. May not be taken for credit if credit has been granted for PHL 191.
PHY $194 \quad$ Physics for the Life Sciences II $\quad \mathbf{3 - 3 - 0}$
This course is designed to emphasize topics of particular relevance to the life sciences. Topics that will be covered include: vibrations and waves; sound; electrostatics (charges, electric fields and potential); circuits; magnetism (forces, induction, electromagnetic waves); optics (interference, diffraction, instruments); and modern physics (atoms, radioactivity, MRI, CAT).
Prerequisite: PHY 191 or PHY 193 or the permission of the instructor.
Corequisite: MAT 192 or MAT 199.
This course should be taken concurrently with PHL 194. This course is for students who lack collegial Physics NYB.
Students who have received credit for an equivalent course taken elsewhere may not register for this course.
Credit will be given for only one of PHY 192, PHY 194, and PHY 199F.

PHL 194 Physics for the Life Sciences Laboratory II
1-0-3
A series of experiments in college physics to complement the material covered in PHY 194.
This course must be taken concurrently with PHY 194. May not be taken for credit if credit has been granted for PHL 192.
PHY 199F Introduction to University Physics $\quad$ 6-6-0 An introduction to the fundamentals of classical physics. Concepts and problemsolving skills are emphasized. Topics in the area of mechanics include: translational, rotational, and oscillatory motion; Newtonian dynamics; conservation of energy, linear momentum, and angular momentum; heat and the kinetic theory of gases. Topics in the area of electricity and magnetism include: electric fields and potentials; AC and DC circuit theory; magnetism and the properties of magnetic materials; electromagnetic waves and optics.
Prerequisites: Students must normally have completed upper-level high school physics and mathematics courses, or must satisfy admission requirements into the B.Sc. degree at Bishop's University. Students taking this course require a knowledge of basic calculus which may be gained concurrently.
Corequisite: PHL 199.
Students may not have credit for both PHY 199 and other introductory physics courses (i.e., PHY 191 and PHY 192 or their equivalents).
PHL 199 Introduction to University Physics Laboratory 2-0-6
A series of experiments that complements the lecture material in PHY199. This laboratory course includes experiments in measurement and uncertainty, statics, dynamics, collisions, AC and DC circuit analysis, electrostatics, magnetism optics, and thermodynamics.
Corequisite: PHY 199
Students may not have credit for both PHL 199 and other introductory physics laboratory courses (i.e., PHL 191 and 192 or their equivalents).
PHY 206 Waves, Optics, and Modern Physics
3-3-0
Wave phenomena. Wave and photon theories of light. Huygens' principle and its applications. Geometrical optics.Interference, diffraction and polarization of light. Modern physics, including elementary atomic physics, nuclear physics, and radioactivity.
Prerequisite: PHY 191 or PHY 193.
Corequisite: PHL 206.
PHL 206 Waves, Optics, and Modern Physics Laboratory 1-0-3
Experiments in geometrical and physical optics, wave motion, and modern physics. This course must be taken concurrently with PHY 206.

## PHY 207 Thermal and Fluid Physics

3-3-0
Pressure, hydrostatics, and hydrodynamics. Properties of materials and Young's Modulus. Temperature and heat. Kinetic theory of gases. Energy, work, heat. First, second, and third laws of thermodynamics. Entropy and disorder. Specific heat of solids, black body radiation, statistical thermodynamics involving different distributions and their applications.
Prerequisite: PHY 191 (or equivalent).
PHY 208 Introduction to Mechanics
3-3-0
Statics: equilibrium of bodies subject to many forces. Kinematics; rectilinear, plane, circular, and simple harmonic motion. Dynamics: conservation of mechanical energy and momentum; plane and circular motions of particles; rotation of macroscopic bodies. Non-inertial frames.
Prerequisite: PHY 191 or equivalent and PHY 270 (or equivalent), or permission of the instructor.
PHY 214 Astronomy and Astrophysics
3-3-0
A survey of our understanding of the physical properties of the universe. Topics to be studied include: observational astronomy, stellar evolution, binary stars, white dwarfs, neutron stars, black holes, galaxies, quasars, large scale structure of the universe, and cosmology.
Prerequisite: PHY 191 (or equivalent), MAT 191 (or equivalent), or permission of the instructor.
PHY $270 \quad$ Ordinary Differential Equations
3-3-0
Techniques for solving first and second order linear differential equations. Systems of first order equations. Power series solutions for second order equations including the method of Frobenius. Various applications of differential equations.
Corequisite: MAT 206.
Note: See MAT 310. Students may not take this course for credit if they have received credit for MAT 310.

PHY 273 Observational Astronomy I 3-3-0
Students will become familiar with modern astronomical techniques through a combination of theoretical and hands-on experience. Techniques covered include CCD observations of stars, planets and galaxies, photometry, and spectroscopy. Students will use the Bishop's 0.45 m telescope to take observations of various targets. Student projects may include: determination of the distances and ages of star clusters; measurements of the variability of stars and quasars; determination of the orbital periods of binary systems; measurements of the mass of Jupiter and galaxies; and determination of the Hubble constant.
Prerequisite: Permission of the Instructor.

## PHY 315 Special Relativity

3-3-0
Special Relativity. Lorentz Transformations. The geometry of space-time. Relativistic mechanics of massive and massless particles. Elementary particles.
Corequisite: PHY 208.
Offered alternate years.

## PHY 316 Physical and Contemporary Optics

3-3-0
Wave theory, polarization, interference, diffraction. Basics of coherence theory, lasers, holography. Quantum nature of light.
Prerequisite: PHY 206.
Offered alternate years.
PHY $317 \quad$ Statistical Mechanics
3-3-0
The statistical definition of entropy and temperature. Statistical Ensembles. The Planck and Maxwell-Boltzmann distributions. The Fermi and Bose distributions. Thermodynamic state functions. Applications of Fermi-Dirac and Bose-Einstein statistics.
Pre or Co-requisites: PHY 207.
Offered alternate years.

## PHY $318 \quad$ Advanced Mechanics

3-3-0
Central forces. Newtonian gravitation: planetary orbits and tides. The Lagrangian and Hamilton's Principle. Liouville's Theorem. Poisson brackets. Hamilton-Jacobi theory. Theory of vibrations and small oscillations (normal modes). Dynamics of macroscopic bodies.
Pre or Co-requisites: PHY 208, PHY 270, or permission of the instructor. Offered alternate years
PHY 319 Electric Circuits and Electronics
3-3-0
Review of D.C. circuits, Kirchoff's laws, network theorems. Network analysis for A.C. circuits, phasors. Diode circuits and filters. The physical basis of semiconductor devices including semiconductor diodes, junction transistors, and field-effect transistors. The operation of transistor amplifiers, digital electronics, and integrated circuits will also be covered.
Prerequisite: PHY 192 or NYB or permission of instructor.
Note: See CS 379.
Students may not take this course for credit if they have received credit for CS 379.
PHY 320 Electromagnetism I
3-3-0
Review of vector calculus. Electrostatics: fields and potentials of point charges, dipoles, and distributed charges; Gauss's theorem; Poisson's and Laplace's equations; dielectrics; capacitance. Current electricity.
Prerequisite: PHY 192, PHY 208, MAT 207.
Offered alternate years.
PHY 321 Electromagnetism II
3-3-0
Magnetic phenomena, magnetic induction, Ampere's Law, and solenoids. Faraday's Law and the displacement current. Magnetic and dielectric materials. Magnetic and electric fields: Maxwell's equations of the electro-magnetic field; plane electromagnetic radiation in dielectrics and conducting media. Radiation and antennae.
Prerequisite: PHY 320.
Offered alternate years.
PHY 335 Environmental Physics
3-3-0
This quantitative, calculus-based, course discusses fundamental environmental problems within a physical context. Topics covered include: the greenhouse effect, blackbody radiation, the ozone problem, mathematical techniques, heat transfer, electricity, the transport of pollutants, plumes, and basic groundwater hydrology. Prerequisites: PHY 207.

## PHY $361 \quad$ Quantum Mechanics I

Topics to be studied include: foundations of quantum mechanics, angular momentum quantization, the Schroedinger equation, central potentials, onedimensional systems, and the hydrogen atom.
Corequisite: PHY 318, or permission of the instructor.
Offered alternate years.

PHY 365 Data Communications 3-3-0
This course will cover how data flows in communications networks. Topics: hardware, software and basic components of data communications; frequency domain representation, modulation, multiplexing; network configurations.
Prerequisite: CS 211, or permission of the instructor.
Note: See CS 315. Students may not take this course for credit if they have received credit for CS 315.
PHY 371 Mathematical Methods of Physics
3-3-0
Discussion of series solutions in connection with the gamma function and Bessel, Legendre, and hypergeometric functions. Laplace transform with applications. Elementary trigonometric Fourier series and boundary value problems. Certain partial differential equations of physics.
Prerequisites: MAT 207 and MAT 310 or PHY 270.
Note: See MAT 311. Students may not take this course for credit if they have received credit for MAT 311.
PHY 374 Data Mining for Scientists
4-3-3
Data is now created faster than humans are able to understand it and use it. There may be patterns hiding within this data with potentially useful information. This course will teach students, including Biology and Biochemistry students as well as those from Computer Science, how to discover these patterns for the purpose of solving problems, gaining knowledge, and making predictions. Topics covered in this course include data preparation, clustering, classification, association rules for mining and linear regression. This course includes assignments and a final project where the students are required to perform mining on real datasets drawn from the biological and physical sciences.
Prerequisites: PHY 101 (or equivalent).
See CS 305.
Students may not take this course for credit if they have received credit for CS 305.
PHY 375 Numerical Methods 3-3-0
A course introducing those numerical methods best suited to a computer. Error analysis, roots of equations, QR-algorithm, interpolation, numerical approaches to differentiation, integration and solutions of differential equations.
Prerequisites: CS 211, MAT 108, MAT 207.
Note: See MAT 325 and CS 375. Students may not take this course for credit if they have received credit for MAT 325 or CS 375.
PHY 376 Calculus of Variations $\quad$ 3-3-0 Euler-Lagrange equations for constrained and unconstrained single and multiple integral variational problems. Parameter-invariant single integrals. General variational formula. The canonical formalism. Hilbert's independent integral. Hamilton-Jacobi equation and the Caratheodory complete figure. Fields and the Legendre and Weierstrass sufficient conditions.
Prerequisite: Permission of the Instructor.
Note: See MAT 405. Students may not take this course for credit if they have received credit for MAT 405.

PHY 378 Scientific Programming
3-3-3
This course is designed as an introduction to programming languages and environments suitable for the numerically intensive applications in the natural sciences and mathematics. Examples will be given to illustrate the use of Fortran in numerical calculations. Other examples will be tackled using the Maple language initially developed to handle problems in symbolic computation.
Prerequisite: CS 404, or permission of the Instructor.
Note: See CS 308. Students may not take this course for credit if they have received credit for CS 308.
PHY 380 Experiential Learning in Astronomy 3-3-0
Students will be expected to work in the Observatory as a telescope operator, guide, and/or public speaker. These activities will help fulfill the Observatory's role as a resource for public outreach in the field of science. Students will be expected to become conversant with the essentials of observational astronomy and to develop their ability to articulate the importance of astronomy and science to the general public through oral and/or written communication. Students must seek out an internal supervisor (a full-time faculty member) who will supervise their activities. Assessment of the student will be based on a mark assigned by the supervisor and will reflect the quality of the work carried out by the student. Students must also submit a journal detailing the actual daily work that was accomplished. Projects may be intensive in nature (i.e., 3 weeks during the summer), or may extend over longer durations (i.e., 6-8 hours per week during the semester).
Students may only take one experiential learning course for credit. Permission of the instructor.

PHL 385 Intermediate Physics Lab I
2-0-6
Introduction to data acquisition and analysis of experiments which serve to measure the fundamental constants or properties of nature (e.g., Planck's constant, Boltzmann's constant, speed of light, charge of the electron, Landé g-factor). Data will be collected by using a variety of instruments including oscilloscopes, computer interfaces using A/D converters, and other data sensors.
Offered alternate years.
PHL 386 Intermediate Physics Lab II $\quad \mathbf{2 - 0 - 6}$
Experiments in quantum physics, non-linear dynamics (chaos), thermodynamics, and low-temperature physics will be carried out. Computer interfaces and nuclear counters will be used to collect and analyze data.
Offered alternate years.
PHL 387 Intermediate Physics Lab III
2-0-6
Introduction to data acquisition and the analysis of data related to experiments in electricity and magnetism, electronics, and physical optics. Experiments include the magnetization of various materials, the Hall effect, and advanced spectroscopy. Computer interfaces will be used to collect and analyze data.
Offered alternate years.
PHL 388 Intermediate Physics Lab IV
2-0-6
Experiments in electricity and magnetism, electronics, holography, and optical astronomy will be carried out. Students will also be allowed to carry out numerical simulations in any area pertaining to computational physics.
Offered alternate years.

## PHY 462 Quantum Mechanics II

3-3-0
Theory of angular momentum, matrix mechanics and applications of quantum mechanics to various branches of physics. Perturbation theory, scattering, molecular applications, and Hartree-Fock theory.
Prerequisite: PHY 361.
PHY 463 Nuclear Physics
3-3-0
Nuclear structure and systematics; alpha emission, beta decay, gamma emission, two-body systems and nuclear reactions; neutron physics; sub-nuclear particles. Prerequisite: PHY 361.
PHY 464 Condensed Matter Physics
3-3-0
Topics to be studied include the one-electron theory of solids, energy bands, lattice vibrations, transport theory, and thermodynamic properties.
Prerequisite: PHY 317, or permission of the department.

## PHY 465 Electromagnetic Theory <br> 3-3-0

Static and dynamic electric and magnetic fields; Maxwell's equations and solutions involving plane waves. Covariant formulation of electromagnetic field theory. Prerequisite: PHY 321.
PHY 466 Theoretical Topics $\quad \mathbf{3 - 3 - 0}$
Topics to be studied will be selected from the areas of special and general relativity, classical and quantum mechanics, particle physics, astrophysics, and cosmology. In particular, the covariant nature of physics and various physical symmetries will be investigated.
Prerequisites: PHY 317, PHY 318; or permission of the instructor.
PHY 467 Advanced Statistical Mechanics 3-3-0
Derivation of the laws of thermodynamics from statistical principles. Quantum statistics, arbitrarily degenerate and relativistic perfect gases, transport theory, thermodynamic fluctuations, and low-temperature physics will also be studied. Prerequisite: PHY 317.
PHY 469 Independent Studies I
3-0-0
Topics to be determined by the instructor based on student's needs.
PHY 470 Independent Studies II
3-0-0
Topics to be determined by the instructor based on student's needs.
PHY 471 Independent Studies III
Topics to be determined by the instructor based on student's needs.
PHY 474 Cosmology
3-0-0
Topics to be studied include: cosmology, inflation, dark energy, compact objects, relativistic fluid dynamics, gravitational lensing, and gravitational waves. See PHY 574.
Students who take this course for credit may not receive credit for PHY 574.

PHY 475 Numerical Methods and Simulations
3-3-0
This course will cover selected topics in High Performance Computing including cellular automata, finite element methods, molecular dynamics, Monte Carlo methods, and multigrid methods. Applications of the algorithms to the study of classical fields, fluid dynamics, materials properties, nanostructures, and biomolecules will be addressed depending on the interests of the students.
See PHY 575. Students may not take this course for credit if they have received credit for PHY 575.
PHY 476 Stellar Astrophysics
3-3-0
An introduction to the properties of stellar atmospheres and interiors. The equations of stellar evolution, nuclear energy generation, radiative transport and stellar model building will be studied. Further topics include the formation of stars, and the physics associated with supernovae, white dwarfs, neutron stars, pulsars and black holes.
PHY $480 \quad$ Honours Research Dissertation
6-1-6
Each student is required to carry out either an experimental or theoretical project under the supervision of a faculty member. A plan outlining the proposed research must be submitted for approval during the first four weeks of the course. Each student will present his/her results in the form of a seminar, an oral thesis defense, and a written dissertation.
Prerequisite: U3 Honours Physics registration or permission of the department.

# Pre-Medicine Double Major (B.Sc) 

Faculty<br>Administered by the<br>Chair of Biology

## Program Overview <br> (75 credits)

The pre-medicine double major allows students to complete all the necessary pre-requisites to apply to medical schools while at the same time pursuing a liberal arts education. The required and optional courses listed below correspond to the entrance requirements of most Canadian and American medical schools, but also address the requirements of most related professional schools (such as dentistry or physiotherapy). Students must register in a separate, primary major as well as the pre-medicine major and complete all of the requirements of both majors in order to graduate. Students can select their primary major from any discipline offered at Bishop's, including Biology, Biochemistry, Chemistry, Business, Liberal Arts, or Psychology. Courses can be double-counted towards both the primary major and the PreMedicine major.

## Entrance Requirements

Students must already be admitted to their primary major at Bishop's. Students must meet two criteria to be considered for entry into the B.Sc. Pre-medicine double major:

- 60 completed course credits (not including lab credits), including advanced credits
- An overall average of $75 \%$. Students must maintain this average to graduate from the program.
Quebec students with a completed D.E.C. will be granted credit for Year 1 courses ( 30 credits) if they successfully completed collegial courses in Chemistry (General Chemistry, Solutions Chemisty), Physics (Mechanics, Electricity and Magnetism), Mathematics (Differential Calculus, Integral Calculus) and Biology (General Biology, Cell and Molecular Biology). Students lacking any of these courses can take their equivalents at Bishop's, and their advanced credits will be reduced accordingly.


## Program Requirements

1. B.Sc. Y1 Year (27 credits; non-Quebec students) BIO 196 Introductory Biology I: Introduction to Cellular and Molecular Biology
CHM 191 General Chemistry I
CHM 192 General Chemistry II
PHY 193 Physics for the Life Sciences I
PHY 194 Physics for the Life Sciences II
MAT 198 Calculus I for Life Sciences
MAT 199 Calculus II for Life Sciences
ENG 116 Effective Writing (or other ENG)
HUM (CLA, ENG, HIS, REL, PHI or Lib. Arts)
Note: Some Quebec medical schools require PHY 206 Waves and Optics in addition to PHY 193 and PHY 194. Students should research their preferred medical school to confirm whether or not they should take PHY 206.

## 2. Pre-Medicine Required Courses: (36 Credits)

The following courses must be taken in order to meet the requirements of the major.
BCH 210 General Biochemistry
BCH 313 Metabolism
BIO 201 Cell and Molecular Biology
BIO 233 Human Anatomy
BIO 336 Animal Physiology I
BIO 337 Animal Physiology II
CHM 111 Organic Chemistry I
CHM 211 Organic Chemistry II
PHY 101 Statistical Methods in Experimental Science
PSY 101 Introduction to Psychology
PSY 102 Introduction to Psychology II
SOC 101 Introduction to Sociology
3. Pre-Medicine Required Options: (12 Credits)

Note: These courses must be taken in addition to the Y1 Humanities and English requirements.
At least 2 Second Language Courses.
At least 2 Courses in English Literature. This includes courses in literature and comprehension, not writing or composition.

## 4. Free Electives: (48 Credits)

These credits can be used to fulfill the requirements of the primary major.

## Useful Electives

These courses are not required for the Pre-Medicine Major, but will deepen your background in biomedical topics and may enhance your success in writing the MCAT, preparing your application essay, and/or performing well in the interview.
BIO 208 Genetics
BIO 311 Quantitative Methods in Health Sciences
BIO 320 Programmed Cell Death
BIO 428 Advanced Physiology
CHM 121 Structure and Bonding
CHM 131 Physical Chemistry I
CHM 141 Analytical Chemistry
CHM 311 Organic Chemistry III
CLA 170 Greek and Latin Terminology for Medicine and the Life Sciences
PBI 275 Health Psychology 1
PBI 276 Health Psychology 2

## Division of Social Sciences

The Division of Social Sciences offers a wide array of courses and programs in the areas of Economics, Environment and Geography, Politics and International Studies, Psychology, Sociology and Sports Studies.

## Degrees and Programs

Detailed descriptions of the degrees and programs offered are found under the respective Departmental sections of this calendar. The Division of Social Sciences offers a wide range of Major programs leading to a Bachelor of Arts (B.A) degree, and the Department of Psychology also offers a Bachelor of Science (B.Sc.) degree in Neuroscience. In addition, the Departments offer Honours programs directed towards students that wish to attain higher levels of specialization in their discipline and that intend to pursue graduate studies. In addition, several departments offer Minor programs that can be added to one's Honours/Major program and some departments offer certificate programs.

## Divisional Major

The Division offers an entry level program for a limited number of students, allowing them to register as Divisional Majors (rather than into a specific program) for a maximum of two semesters. After two semesters of full-time study are completed, students must enrol into a specific program (Major). Students who are not accepted into one of the regular programs must consult with the Dean of Arts and Science to determine an academic plan.

## Arts \& Science Requirement

In order to encourage students enrolled in the Division of Social Sciences to broaden the scope of their education, all majors and honours are required to complete at least three credits in the Division of Natural Sciences \& Mathematics. While this requirement will not in itself ensure against excessive specialization, it is hoped that it will lead students to find and pursue various areas of interest. Students with program combinations which require more than 72 credits are exempt from this requirement.

## Transfers from Other Programs

Students may normally transfer into a program in the Division of Social Sciences or between programs within the Division provided they have a minimum cumulative average of $65 \%$ on at least 24 course credits completed at Bishop's, or, provided they have demonstrated an aptitude for the program by achieving an average of $65 \%$ in all program courses attempted (minimum of 12 credits). For the purpose of these regulations, the cumulative average and course averages used will be those existing at the time the program change request is made.

## Graduation "with Distinction"

The notation "with Distinction" will appear on the transcript of students who graduate with a cumulative average of $80 \%$ or more. It is only available for first degree student

## Divisional Courses

ILT 104 / 141 Information Retrieval and Evaluation Skills for the Social Sciences (Lab)<br>(Not mandatory unless indicated)

1-0-1

The objective of this laboratory course is to introduce students to the skills necessary to effectively complete their research assignments, including the correct use of library resources, such as the online catalogue, periodical indexes, and other relevant databases. Other areas of study include the identification of key terms for effective searching, productive use of the internet, and the critical evaluation of retrieved resources. Academic integrity, plagiarism, and the correct citation of print and online sources are also covered. Taught in conjunction with a researchbased course, the specific resources relevant to research in the Social Sciences are introduced, and the students retrieve the material necessary to complete the essays for their particular course. The course is taught in the library's electronic classroom, and each week the students are given the opportunity for practical experience.
INT 300 International Development Assistance Internship 3-0-0 Students must secure the approval of a Department and of a faculty member in that Department to supervise an AUCC/Canada Corps Internship, a Champlain Regional College-Bishop's University Mai-Sot Internship, a Champlain Regional College Peru Internship or any other international internship sponsored by an NGO or accredited institution that is recognized by a Selection Committee chaired by the Vice-Principal. Application for selection and funding must be addressed to the Vice-Principal's Office normally by December 1. The number of internships is subject to acceptance by sponsoring agencies and availability of funding.
Prerequisite: Final-year students only or permission of the Selection Committee.

## Economics

## Faculty

## Keith Baxter,

B.A. (R.M.C.), M.A. (Toronto); Senior Instructor

Terry Eyland,
B.B.A. (Bishop's), M.A. (Ottawa), PhD. (HEC Montréal); Associate Professor
Chair of the Department
Robert A. Sproule,
B.E.S. (Waterloo), M.A. (Alberta), Ph.D.
(Manitoba); Professor
Marianne Vigneault,
B.A. (Bishop's), M.A. (Queen's), Ph.D. (Queen's); Professor

## Program Overview

Studying Economics provides students with valuable skills that will serve them w ell in many careers. A BA degree in Economics allows graduates to pursue varied careers in areas such as economic forecasting, economic policy analysis, financial markets and institutions, and public policy. The undergraduate degree in economics also provides a basis for entry into graduate work in Economics, Finance, Business Administration, Law, Political Science, Political Economy and Public Administration.

Economics is concerned with the fundamental principle upon which human activity revolves - our wants are unlimited while the resources available for their satisfaction are not. Any economic system must determine what is to be produced from these limited resources, and how the resulting output is to be distributed amongst its population. The human organization and economic machinery necessary for the resolution of this problem is a very complex matter, especially in a highly decentralized deci-sion-making society such as our own private enterprise economy. The objectives of the discipline of economics are to explain how an economy works, how well it is performing, and how it may perform better. It may be noted here that economics is the only discipline within the Social Sciences where a Nobel Prize is awarded.

In addressing these concerns economics uses its own particular approach or manner of thinking. The goal of the Department of Economics is to develop in the student the capacity to "think like an economist". To achieve this objective requires that our students become familiar with disciplined economic reasoning and therefore familiar with the analytical tools of economic science. The process involves the development of both problem-solving and creative skills. These attributes, in turn, increase the understanding of present day economic phenomena as well as promoting effective predictions of the consequences of changes in our evolving world. The student is prepared for the present and forearmed for the future.

The breadth of programs available allows students to tailor their studies in line with their objectives. Choices may be made from the outline below in honours, major, minor, and joint programs such as International Political Economy.

## Entrance Requirements

## 1. Admission

Rules and regulations for admission into degree programs in Economics are detailed in the section of this Calendar entitled "Admission and Registration" with the following additional specification:

## a) Mathematics

(i) MAT 196 and MAT 197 (or their equivalent) are required courses for all Economics programs except the Minor and B.A. (Major in International Political Economy).*
(ii) MAT 191 or MAT 192 (or their equivalent) are required courses for B.A. (Honours Economics).
A student having a Québec Collegial Diploma (D.E.C.) including Mathematics 201-NYC (201-105) and Mathematics 201-NYA (201-103) may be exempted from MAT 196 and MAT 197. OAC Calculus, with $70 \%$, is equivalent to MAT 197. Students granted exemption must substitute these courses with free elective courses. Students lacking the appropriate preparation for MAT 191 or MAT 197 will be required to take an additional credit course MAT 190.
*Note that MAT 196 and MAT 197 are prerequisites for ECO 208
b) Statistics

Students are also required to have completed a course in Introductory Statistics, equivalent to BMA 140 as a prerequisite for all Economics programs. Students who are required to take BMA 140 will use this course as a free elective.

## 2. Transfers from Other Bishop's Programs

To be eligible to transfer into any Major or Honours program in Economics, including joint programs with Political Studies, from a non-Economics program, a student normally must have successfully completed at least 30 credits at Bishop's, and have achieved a minimum cumulative average of $65 \%$ based on all courses attempted, or an average of $65 \%$ in all Economics courses attempted (minimum of 12 credits).

## 3. Double Failure Rule

Any student who twice receives a failing grade in a course offered by the Department of Economics will not be permitted to repeat the course again. If this is an economics course that is required in order to graduate from a degree program offered by the Department of Economics (Economics Honours, Economics Major, Economics Minor), the student will not be eligible to graduate with that degree. This regulation applies to students in non-economics programs where an economics course is required to complete their degree. This implies that having twice received a failing grade in the same economics course at Bishop's precludes a student from receiving transfer credits for the same course.

## Programs in Economics

## Honours Economics ( 63 credits) HONECO

The Honours B.A. program in Economics consists of 120 credits + ILT104 (1 lab credit). In order to register in the Honours program students must have completed at least 12 credits in ECO, BMA or EMA (Quantitative Methods) courses. In order to graduate with an Honours B.A. degree in Economics, students must maintain an average of at least $75 \%$ in all ECO and EMA courses. Requirements of the program are:
Quantitative Methods .................................................. 6 credits
Mathematics 9 credits
Required courses in Economics 24 credits
Elective courses in Economics** 24 credits
Free Electives* 57 credits

Total

## 120 credits + ILT104 (1 lab credit)

* For students in higher-credit programs, the number of credits in this category are adjusted accordingly. At least 12 credits in this category must be earned outside of the Department of Economics.
** Up to 9 of the total required credits in this category can be met, with departmental approval, by a selection of courses in cognate areas.


## Information Retrieval

ILT 104 Information Retrieval and Evaluation Skills for the Social Sciences

## Quantitative Methods

BMA141 Statistical Analysis for Business Decisions II
EMA 261 Econometrics I

## Mathematics

MAT 196 Finite Mathematics for Business Students
plus:
MAT 191 Enriched Calculus I and
MAT 192 Enriched Calculus II

## OR

MAT 197 Calculus for Business and Economics and
EMA 262 Mathematical Economics

## Required courses in Economics

ECO 102 Principles of Economics: Microeconomics
ECO 103 Principles of Economics: Macroeconomics
ECO 208 Intermediate Microeconomics I
ECO 209 Intermediate Microeconomics II
ECO 212 Intermediate Macroeconomics
ECO 342 Advanced Macroeconomics
ECO 343 Advanced Microeconomics
ECO 361 Applied Economic Analysis

For those Economics Honours students who intend to proceed to graduate school, the following additional courses in Mathematics are strongly recommended:
MAT 206 Advanced Calculus I
MAT 207 Advanced Calculus II
MAT108 Matrix Algebra
MAT 209 Linear Algebra
MAT 313 Introduction to Probability
MAT 314 Introduction to Mathematical Statistics
As well, it is strongly recommended that these students take additional courses in Mathematics as electives. Students should also consider a Minor in Mathematics.

## Major Economics (45 credits)

The Major B.A. program in Economics consists of 120 credits + ILT 104 (1 lab credit). Requirements of the program are: Mathematics $\qquad$ 6 credits
Quantitative Methods 6 credits
Required courses in Economics 15 credits
Elective courses in Economics* 18 credits
Free Electives** 75 credits

Total
120 credits + ILT 104 (1 lab credit)
*Up to 6 of the total required credits in this category can be met, with departmental approval, by a selection of courses in cognate areas.
**For students in higher-credit programs, the number of credits in this category are adjusted accordingly. At least 15 credits in this category must be earned outside of the Department of Economics.

## Information Retrieval

ILT 104 Information Retrieval and Evaluation Skills for the Social Sciences

Mathematics (6 credits)
MAT 196 Finite Mathematics for Business Students
MAT 197 Calculus for Business and Economics OR
MAT 191 Enriched Calculus I
Quantitative Methods (6 credits)
BMA 141 Statistical Analysis for Business Decisions II
EMA 261 Econometrics I

## Required Courses in Economics ( 15 credits)

ECO 102 Principles of Economics: Microeconomics
ECO 103 Principles of Economics: Macroeconomics
ECO 208 Intermediate Microeconomics I
ECO 212 Intermediate Macroeconomics
ECO 361 Applied Economic Analysis

## Concentrations in Economics

Students wishing to develop expertise in specific areas of Economics can elect to follow a concentration according to the following:

## Concentration in Business Economics

MAJECB
Any six of the following:
ECO 105 Behavioural Economics
ECO 200 Money and Banking
ECO 204 Labour Economics
ECO 217 International Economics
ECO 270 Public Economics
ECO 305 Game Theory
ECO 308 Managerial Economics
ECO 322 Real Estate Economics
With departmental approval, students can satisfy up to 6 of the 18-credit requirement from courses in Business

## Concentration in Public Policy

MAJECP
Any six of the following
ECO 105 Behavioural Economics
ECO 126 Economics of Crime and Criminal Justice
ECO 204 Labour Economics
ECO 217 International Economics
ECO 237 Economics of the Environment
ECO 270 Public Economics
ECO 336 Contemporary Economic Issues
ECO 337 Ecological Economics
With departmental approval, students can satisfy up to 6 of the 18-credit requirement from courses in other disciplines

## Concentration in Global Economy

MAJECG
Any six of the following:
ECO 125 Economic Development I: Human Development Problems and Policies
ECO 175 Economic Geography
ECO 217 International Economics
ECO 225 Economic Development II: Macroeconomic and Policy Issues
ECO 237 Economics of the Environment
ECO 280 Contemporary Perspectives in Political Economy
ECO 337 Ecological Economics
With departmental approval, students can satisfy up to 6 of the 18-credit requirement from courses in other disciplines

## Minor in Economics

MINECO
A minor in Economics consists of any 24 credits* in Economics including ECO 102 and ECO 103, plus ILT 104 or its equivalent. Students considering a minor in Economics should consult the Chairperson of the Department. If Economics is required as a Cognate in another program, economics courses so taken will also be counted towards the minor. The course BMA 141: Statistical Analysis for Business Decisions II can be included within the required 24 credits.
*Up to 3 of the total required credits in this category can be met, with departmental approval, by a selection of courses in cognate areas such as Business Administration, Mathematics, Computer Science, and Political Studies.

## Honours in International Political Economy ( 60 credits)

HONPEC
These programs are offered jointly by the Departments of Economics and Politics and International Studies. As an area of academic inquiry, International Political Economy examines the relations between modes of production and distribution in the private and public spheres. Note that, in light of the impacts of globalization pressures on the political economies of the state, these programs have a decidedly international focus.

The Honours program in International Political Economy consists of at least 60 credits, with 30 credits drawn from Politics and International Studies and 30 from Economics.

To enter or continue in an Honours program, students must normally obtain and sustain a cumulative average of $75 \%$ in the Politics and International Studies and Economics courses. Honours students who do not fulfill the above requirements will automatically revert to the Major program. To be awarded Honours at graduation, students must be registered in the Honours program at Bishop's during their last thirty (30) credits of study. Honours standing at graduation will be determined by the students overall record in the Honours program.

## Economics Requirements ( $\mathbf{3 0}$ credits)

Required Courses in Economics ( 15 credits):
ECO 102 Principles of Economics: Microeconomics
ECO 103 Principles of Economics: Macroeconomics
ECO 212 Intermediate Macroeconomics
ECO 270 Public Economics
One of the following courses:
ECO 125 Economic Development I: Human Development
Problems and Policies
ECO 175 Economic Geography
ECO 217 International Economics
ECO 251 History of Economic Thought I
ECO 280 Contemporary Perspectives in Political Economy

## Elective Courses in Economics ( $\mathbf{1 5}$ credits):

The remaining 15 credits to be taken from any area of Economics

## Politics and International Studies Requirements (30 credits)

## Required Courses:

POL 101 Introduction to Comparative Politics
POL 140 Introduction to International Relations
POL 240 International Political Economy
POL 361 Techniques of Empirical Research
Plus two of:
POL 229 History of Political Philosophy - Modern
POL 235 American Political Economy
POL 241 International Affairs
POL 242 International Organizations
POL 317 Globalization and the Canadian State
POL 344 Politics of International Trade and Investment
POL 346 Politics of Global Finance
Plus:
One POL 400 level course

Plus Free Elective Courses in Politics and International Studies: 9 credits (3 POL courses)

Note that some of these courses may have prerequisites or, alternatively, require permission from the instructor.

To enter and remain in the Honours program, students must normally attain a cumulative average of $75 \%$ in program courses. Honours students who do not meet this average requirement at graduation will automatically revert to the Major program.

## Major in International Political Economy (48 credits)

MAJPEC
The B.A. Major Program in International Political Economy consists of at least 48 credits, with 24 credits drawn from Politics and International Studies and 24 from Economics.

## Economics Requirements ( $\mathbf{2 4}$ credits)

## Required Courses in Economics (9 credits):

ECO 102 Principles of Economics: Microeconomics
ECO 103 Principles of Economics: Macroeconomics
One of the following courses:
ECO 125 Economic Development I: Human Development
Problems and Policies
ECO 175 Economic Geography
ECO 217 International Economics
ECO 251 History of Economic Thought I
ECO $270 \quad$ Public Economics
ECO 280 Contemporary Perspectives in Political Economy

## Elective Courses in Economics (15 credits):

The remaining 15 credits to be taken from any area of Economics

## Politics and International Studies Requirements (24 CREDITS)

## Required Courses:

POL 101 Introduction to Comparative Politics
POL 140 Introduction to International Relations
POL 240 International Political Economy
Plus two of:
POL 229 History of Political Philosophy - Modern
POL 235 American Political Economy
POL 241 International Affairs
POL 242 International Organizations
POL 317 Globalization and the Canadian State
POL 344 Politics of International Trade and Investment
POL 346 Politics of Global Finance
Plus Free Elective Courses in Politics and International Studies:
9 credits (3 POL courses)
Note that some of these courses may have pre-requisites or, alternatively, require permission from the instructor.

## List of Courses

ECO 102 Principles of Economics: Microeconomics 3-3-0 A general introduction to the study of Economics and the nature of economic problems. Of primary concern is the behaviour of individual consumers and firms in particular markets, and the results of their actions as they appear in production, sales, costs, prices, wages, interest and profits.
ECO 103 Principles of Economics: Macroeconomics 3-3-0 A general introduction to the study of Economics and the nature of economic problems. The course is largely concerned with the determinants of the level of national income, employment and the accompanying stabilization problems - all in a Canadian context.

ECO 105 Behavioural Economics
3-3-0
This course introduces students to the relatively new field of behavioural economics. It goes beyond the rational behaviour seen in typical economics courses and studies models that are combined with psychologically plausible assumptions of behaviour. Topics will include choice under risk and uncertainty, bounded rationality, intertemporal choice, behavioural choice, behavioural game theory, procrastination, altruism, and reciprocity.
ECO 109 Economic Policy 3-3-0
Economics is studied for its policy implications. This course will examine problems, policies, institutions, and controversies in public policy regarding the economy in Canada from both an analytical and a historical perspective.

## ECO 115 The Making of Economic Society 3-3-0

A non-technical introduction to the history of the development of the modern market economy, from its beginnings in Medieval Europe up to the Twenty-first Century. An exploration of the economic events, resources, institutions, ideas and technologies that have shaped the evolution of Western civilization and led to the westernization of the global economy.
ECO 118 Canadian Economic Development I 3-3-0 A study of historical factors which have determined Canada's present economic structure, from the first penetration of European civilization into what is now the territory of Canada, to the dawn of the 20th century. Topics include the staple export industries (e.g. fur, fish, lumber, wheat, minerals, newsprint, energy), agriculture, changes in technology, state administration and policy, foreign investment.
ECO 119 Canadian Economic Development II
3-3-0
A study of historical factors of the 20th century which have shaped the development of the modern Canadian economy including staple industries, agriculture, energy, crown corporations and other financial and political institutions, federalprovincial relations, regionalism, industrial organization, technical change, foreign investment and transnational firms, international trade, and globalization.
Prerequisites: ECO 102
ECO 125 Economic Development I:
Human Development Problems and Policies
3-3-0
The course provides an introduction to the concept of economic development and an analysis of domestic problems facing developing countries, including poverty and inequality, population growth, education, rural development, unemployment, and the environment.

ECO 126 Economics of Crime and Criminal Justice 3-3-0
This course discusses the economic elements underlying the behaviour of criminals, victims, and law enforcement agencies. Major topics covered include the supply of crime by criminals, the demand for crime prevention by victims, and public policy issues like crime control, and the allocation of criminal justice resources.

ECO 131 A History of Major Economic Events:
1750 to the present
3-3-0
This course is a non-technical introduction to some of the basic concepts of economics through an historical review of the most important economic events of the last two hundred years. A variety of topics are discussed from the Industrial Revolution in Great Britain, the Great Depression, the construction of Europe, to the most recent Financial Crises that led to the Great Recession. Special attention is given to the parallels that can be drawn from past economic events with current ones.

ECO 175 Economic Geography
3-3-0
The production of, and trade in, goods and services vary by city, region, and country. In recent years, these spatial variations have widened in some cases, and narrowed in others. But common to all are the drivers-of-change. These include major geo-political events, the adoption of innovative cost-saving practices, and the creation and evolution of entrepreneurial networks and industrial clusters. This course will explore the key elements of these dynamics, and explore the ongoing debate about the appropriate role of government in an increasingly-globalized world.
This course is cross-listed with ESG 175.
ECO 200 Money and Banking 3-3-0
Nature and functions of money and credit, financial institutions, commercial and central banking in the Canadian economy. Aims, instruments, and effectiveness of monetary policy.
Prerequisite: ECO 103
ECO 204 Labour Economics
3-3-0
An analysis of the demand for and the supply of labor, wage differentials, and wage structures, as well as an analysis of the effects of unions, and the rationale for current supply-side or passive employment policies in Canada and other OECD countries.
Prerequisites: ECO 102
ECO 206 Agricultural Economics 3-3-0
Application of microeconomics principles to the problems of agricultural production and resource use, agricultural supply and demand analysis, price determination, market structure and income distribution in competitive and imperfectly competitive markets.
Prerequisites: ECO 102, ECO 103
ECO 208 Intermediate Microeconomics I
3-3-0
Consumer theory, production and cost theory, output and price determination by market structures, introduction to game theory, general equilibrium analysis, choice under uncertainty and imperfect information.
Prerequisites: ECO 102, MAT 196 and MAT 197 or equivalent.
ECO 209 Intermediate Microeconomics II
3-3-0
Consumer Theory, Decision Theory under Risk and Uncertainty, Information, and Microeconomic applications.
Prerequisites ECO 208
ECO 210 Economics and the Law
3-3-0
An introduction to the application of economic principles and methodology to a variety of legal problems with particular emphasis on the theory of property rights and the allocation of resources. Problems under imperfect information, such as the principal-agent problem, the "market for lemons," job market signaling and screening, are also discussed.
Prerequisite: ECO 102
ECO 212 Intermediate Macroeconomics
3-3-0
This course examines business cycles, monetary and fiscal stabilization policies, unemployment and labour market frictions, inflation, exchange rate determination, exchange rate systems, and introduction to economic growth.
Prerequisites: ECO 103
ECO 217 International Economics
3-3-0
The course provides an introduction to international economics. The first half of the course examines trade theory and policy, including the Classical and modern theories of international trade, policies restricting trade, and international trade liberalization. The second half of the course examines international monetary economics, including foreign exchange markets, exchange rate determination, and open-economy macroeconomic policy.
Prerequisites: ECO 102 and ECO 103

## ECO 224 Sports Economics

3-3-0
The course applies microeconomic principles to analyze sports. Among the topics covered are the market for sports, the market for talent, pricing decisions, labour relations, and the role of public policy. The field draws from several important subfields of microeconomics, including game theory, industrial organization, public economics, labour economics, and the economics of information.
Prerequisites: ECO 102

## ECO 225 Economic Development II:

## Macroeconomic and Policy Issues

3-3-0
An introduction to models of economic growth. An analysis of international issues facing developing countries: international trade and trade policy, foreign inventment and foreign aid, the balance of payments, and third world debt. An introduction to the techniques of evaluating development projects.
Prerequisites: ECO 102 and ECO 103

ECO 237 Economics of the Environment
3-3-0
Application of concepts and methods of economic analysis to environmental problems. Pros and cons of selected policies forenvironmental protection. Economic growth and environmental decay. Private vs social costs of environmental decay.
ECO 251 History of Economic Thought I 3-3-0
An introductory analysis of the methodological foundations of the more prominent schools of thought within mainstream Economics. This is a seminar course, and students are required to prepare one or more essays.
Prerequisites: ECO 102 and ECO 103
Offered in rotation with ECO 280
ECO 260 Topics of Applied Economics 3-3-0
Content of this course varies year by year. The topics are determined by the instructor of the course. A writing component is emphasized in this course.
Prerequisite: ECO 102, ECO 103
ECO 270 Public Economics
3-3-0
This course examines key policy issues related to government expenditure and taxation. Topics covered include the rationale for government provision of goods in a market economy, public choice, fiscal federalism, cost-benefit analysis, and an analysis of tax incidence and efficiency.
Prerequisites: ECO 102
ECO 280 Contemporary Perspectives in Political Economy 3-3-0
This course develops core contemporary perspectives in political economy within an international context. This course is neither a course in political science nor a course in economics, but rather a course that stresses the interaction of the two disciplines.
Prerequisites: ECO 102 and ECO 103
Offered in rotation with ECO 251
$\begin{array}{lll}\text { ECO } 305 & \text { Game Theory with Applications to Economics } & \text { 3-3-0 } \\ \text { Game Theory studies the causes and consequences of the actions of decision- }\end{array}$ Game Theory studies the causes and consequences of the actions of decisionmakers who are aware that their choices affect each other. The theory includes: non-cooperative games, cooperation and reputation, and dynamic games. Applications include: bargaining, auctions, industrial organization, asymmetric information, and social choice theory (the economics of democratic institutions). Prerequisites ECO 208
ECO 308 Managerial Economics
3-3-0
An introduction to the principal topics in managerial economics. These include decision-making under uncertainty, demand analysis and estimation, cost analysis and estimation, and pricing theory and practices.
Prerequisites: ECO 208 and BMA 141

## ECO 310 Economics Internship

3-0-0
The Economics Internship provides an opportunity for a continuing student to gain valuable experience working alongside professional economists. The internship is subject to acceptance and supervision by the Department of Economics and by the participating institution. The participating institution can be located outside of the Lennoxville/Sherbrooke community, and thus may require the student to reside in another city. The internship takes place over some or all of the summer months.

## ECO 322 Real Estate Economics

3-3-0
This course provides students with an understanding of two essential components to real estate analysis. First, it introduces the techniques of investment and statistical analysis in a real estate valuation context. Topics here include: cash flow analysis, discounting, and compounding. Second, it looks at the economics behind real estate price fluctuations. Topics here include: factors affecting the demand for real estate, and the relationship between land use, land value, and location.
Prerequisite: ECO 102
ECO 336 Contemporary Economic Issues
Application of tools of economic analysis to selected issues and problems in Canada.
Prerequisites: ECO 102 and ECO 103
ECO 337 Ecological Economics 3-3-0
This course explores the principles underlying a truly sustainable ecological economy in a "full world". Topics such as sustainability, the nature of work, quality in production and consumption, ecological cost, peak oil, inequality, the scale and distribution of economic activity, and the purpose of economic activity and economic development are entertained. Seminar course in which student presentations feature prominently. Intended for students who have completed at least 45 credits at the university, including at least 12 in economics.
Prerequisites: ECO 102 and ECO 103

ECO 342 Advanced Macroeconomics 3-3-0
Selected topics in theoretical and applied macroeconomics, including growth theory, real business cycles, new Keynesian models of fluctuations, consumption, investment, unemployment, monetary policy, and fiscal policy.
Prerequisites: ECO 212, EMA 261 and EMA 262 or equivalent

## ECO 343 Advanced Microeconomics

3-3-0
A selection of core topics from Microeconomics, including unconstrained and constrained optimization, direct and indirect utility functions, duality in consumption and production, the expenditure function, ordinary and compensated demand functions, the Slutsky equation, the Envelope Theorem, Roy's Identity, Hotelling's Lemma, and the Expected Utility Hypothesis.
Prerequisite: ECO 209, EMA 261 and EMA 262 or equivalent
ECO 344 Independent Study
Individual study and research under the guidance of an advisor.
Prerequisites: Permission of the Department and instructor. ECO 208, ECO 212

## ECO 345 Independent Study

Individual study and research under the guidance of an advisor.
Prerequisites: Permission of the Department and instructor. ECO 208, ECO 212

## ECO 351 History of Economic Thought II

 3-3-0An advanced analysis of the methodological foundations of the more prominent schools of thought within mainstream Economics. This is a seminar course, and students are required to prepare one or more essays.
Prerequisite: ECO 102 and ECO 103, and ECO 251
ECO 361 Applied Economic Analysis
The purpose of this course is to provide students with a basic understanding of conducting applied economic analysis. It builds upon the student's knowledge of basic econometrics and allows him/her to use this knowledge to analyze real-world data and undertake original empirical analyses. Written and oral dissemination of results is also emphasized as important skills.
Prerequisite: EMA261, ECO 208, ECO 212
ECO 365 Honours Seminar 3-3-0
The purpose of this course is to prepare the student for advanced economic research leading up to original empirical and/or theoretical research undertaken by the student for his/her honours thesis and for research undertaken at the graduate level and beyond. Areas covered include: selection of a research topic, literature survey, theoretical and empirical analyses including model building, formulation of a research question and hypothesis, and testing hypotheses.
Prerequisite: ECO 209, EMA 261
ECO 370 Honours Thesis 3-0-0
Continuation of ECO 360 . Under the supervision of a faculty member of the Department of Economics, the student in the final year of his Honours program will complete the research agenda developed in ECO 360. The student will present the research results in a seminar to be scheduled in the last two weeks of class. Prerequisite: ECO 365

## Courses for Mathematics

BMA 140 Statistical Analysis for Business Decisions I $\quad$ 3-3-0
Data summarization: frequency distributions, measures of central tendency and variability; probability; introduction to statistical decision analysis; discrete probability distributions: binomial, Poisson probability distributions; continuous probability distributions: normal, uniform and exponential probability distributions. Prerequisite: MAT 196
BMA 141 Statistical Analysis for Business Decisions II 3-3-0
Topics include: Sampling methods and sampling distributions; statistical inference; estimation and hypothesis testing; simple linear regression and correlation; multiple and curvilinear regression; chi-square tests for independence and goodness-of-fit; introduction to analysis of variance; nonparametric tests.
Prerequisite: BMA 140 or equivalent, or MAT 197
Note: this course may not be taken for credit by Science students.

## EMA 261 Econometrics I

An introduction to econometrics. Topics include the classical assumptions, ordinary and generalized least squares estimation, hypothesis testing, the statistical implications of violating of the classical assumptions, common remedial measures, and the distributed lag and autoregressive models.
Prerequisite: ECO 102, ECO 103, and BMA 141

EMA 262 Mathematical Economics I
3-3-0
The application of matrix algebra and multivariate calculus to model-building and problem-solving in Economics.
Prerequisites: ECO 102, ECO 103, MAT 196 and MAT 192 or MAT 197
Cross-listed with MAT 172
EMA 361 Econometrics II 3-3-0
Ordinary and generalized least squares estimation, and hypothesis testing, using matrix algebra. Additional topics include simultaneous-equation estimation, the identification problem, two-stage least squares estimation, a stationary series, the unit-root test, spurious regression, the Granger causality test, cointegration, and the error-correction model.
Prerequisites: EMA 261, ECO 208, ECO 212
EMA 362 Mathematical Economics II
3-3-0
The application of differential and difference equations, and mathematical programming, to model-building and problem-solving in Economics.
Prerequisites: EMA 262, ECO 208, ECO 212
ILT 104 Information Retrieval and Evaluation Skills for the Social Sciences (Lab)

1-0-1
The objective of this laboratory course is to introduce students to the skills necessary to effectively complete their research assignments, including the correct use of library resources such as the online catalogue, periodical indexes and other relevant databases. Other areas of study include the identification of key terms for effective searching, productive use of the internet and the critical evaluation of retrieved resources. Academic integrity, plagiarism and the correct citation of print and online sources are also covered. Taught in conjunction with a researchbased course, the specific resources relevant to research in the Social Sciences are introduced, and the students retrieve the material necessary to complete the essays for their particular course. The course is taught in the library's electronic classroom, and each week the students are given the opportunity for practical experience.
Equivalent to ILT 100 or ILT 102 as part of the Economics Honours, Major, and Minor programs.

## Cognate Courses

A number of cognate courses may be taken in such areas as Business Administration, Mathematics, Computer Science, Environment and Geography and Political Studies. Consult the Chairman of the Department for the full range of possibilities.

## Environment and Geography

## Faculty

## Darren Bardati,

B.A.(Bishop's), M.A., Ph.D.(McGill); Professor

Chair of the Department
Norman K. Jones,
B.A. (McMaster), M.Sc. (Alberta), Ph.D. (Waterloo); Professor

Elisabeth Levac,
B.Sc., M.Sc. (UQAM), Ph.D.(Dalhousie); Professor

Jane Morrison,
B.Civ.Eng. M.Sc. (McGill), Ph.D. (Barcelona Tech) Assistant Professor, Strategic Innovation Faculty member (SAFS program)

## Matthew Peros,

B.Sc. (Toronto), M.Sc. (York), Ph.D.(Toronto); Professor, Tier II Canada Research Chair in Climate and Environmental Change

## Program Overview

The Department of Environment and Geography offers both B.A. and B.Sc. majors and a wide variety of courses focusing on the intersection of humans and the natural environment. In order for a complete understanding of the human-environment interactions, students need to understand the science of the natural world, and the impacts humans are having on their environment, at all scales, from local to global. We must understand how and why the environment is changing. Climate change, acid precipitation, ozone depletion, waste management, food systems, and water conservation are issues which require thorough examination in or that proper decision-making processes can be implemented by leaders in government, industry and non-governmental organizations. We carefully and systematically examine all aspects of the environment so that our graduates can play an important role in the future of our environment.

Bishop's location in the midst of an area of great economic, cultural and physical diversity provides many opportunities for students to take part in practical fieldwork and applied projects. Such studies are integral parts of several courses, especially those relating to elements of physical geography and human impact on the environment. Students enrolling in ESG and AGR courses should be prepared to devote time to fieldwork outside of normal class time. Details of field studies will be discussed within individual courses.

## Environment and Geography <br> Programs

## Environmental Studies (EST)

B.A. Honours in Environmental Studies, 60 credits
B.A. Major in Environmental Studies, 48 credits

Minor in Environmental Studies, 24 credits

## Environmental Science (ENV)

B.Sc. Honours in Environmental Science, 81 credits
B.Sc. Major in Environmental Science, 75 credits

Minor in Environmental Science, 24 credits
Geography (GEO)
B.A. Honours in Geography, 60 credits
B.A. Major in Geography, 45 credits

Minor in Geography, 24 credits
Sustainable Agriculture and Food Systems (SAFS)
B.A. Dual Specialization in

Sustainable Agriculture and Food Systems, 48 credits
Minor in sustainable Agriculture and Food Systems, 24 credits
Future programs:
B.A. Major Sustainable Agriculture and Food Systems*
B.A. Honours Sustainable Agriculture and Food Systems*
B.Sc. Major Sustainable Agriculture and Food Systems*
B.Sc. Honours Sustainable Agriculture and Food Systems*
*At the time of printing, the B.A. and B.Sc. Majors and Honours programs in Sustainable Agriculture and Food Systems (SAFS) were under external review.

## Certificate Programs

Certificate in Environmental Studies and Geography, 30 credits Certificate in Sustainable Agriculture and Food Systems, 30 credits Graduate-level Micro-Program in Climate Change, 9 credits (see graduate programs section of the Academic Calendar)

## NOTES:

1. All AGR coded courses may count as ESG electives for the EST, GEO or ENV majors, honours and minors.
2. You cannot major in either EST, GEO or ENV and minor in any of EST, GEO or ENV at the same time, due to the abundant overlap in courses. However, you can major in either EST, GEO or ENV and minor in AGR.
3. For B.A. programs, you must take a 3-credit course from the Division of Natural Sciences to fulfil your divisional requirement.

| B.A. Environmental Studies | Geography Honour | CHM 111 |  <br> Lab CHL 111 |
| :---: | :---: | :---: | :---: |
| Environmental Studies Major | (60 credits) HONGEO | CHM 141 | Analytical Chemistry \& Lab CHL 141 |
| (48 credits) | Same as Geography Major, plus: | BIO 211 |  |
| Core (8 courses or 24 credits) | Core (2 courses or 6 credits) |  | Lab BIL 211 |
| ENG 116 Effective Writing (or any | ESG 461 Honours Proposal | $\text { BIO } 206$ | Diversity of Life I \& Lab BIL 205 Diversity of Life II |
| University-level English literature 3-credit course) | ESG 462 | BIO 33 |  |
| ESG 100 | Additional required: Any 3 courses (9 credits) from the ESG department |  | 331 |
| ESG 126 Intro Human Geography |  | BIO 327 | Advanced Ecology |
| $\begin{array}{ll}\text { ESG } 127 & \text { Intro Physical Geography } \\ \text { ESG } 260 & \text { Research Methods }\end{array}$ | Geography Minor | Additional required $E S G / A G R$ courses: Any 7 courses ( 21 credits) from this list: |  |
| $\begin{array}{ll}\text { ESG } 261 & \text { Quant. Methods (or one of the } \\ & \text { following: BMA 140, PMA 260, or } \\ & \text { PHY 101) }\end{array}$ | ( 24 credits) Core (2 courses or 6 credits) | Any 7 co <br> AGR 130 | es (21 credits) from this list: <br> Environmental Implications of Agriculture |
| ESG 262 | ESG 126 Intro Human Geography |  |  |
| ESG $300 \quad$ Environmental Studies Seminar Additional required: Any 8 courses (24 credits) from | ESG 127 Intro Physical Geography |  |  |
| Additional required: Any 8 courses ( 24 credits) from the ESG department | Additional required: Any 6 courses (18 credits) from the ESG department |  | Lab AGL 230 |
|  |  | ESG 226 | Physical Oceanography |
| Environmental Studie | Certificate in Environmental | ESG 227 | Biogeochemical \& Environmental Oceanography |
| Honours (60 credits) HONEST | Studies and Geography <br> (30 credits) <br> CONESG | 250 | Geomorphology |
|  |  | ESG 251 | Soils \& Vegetation |
| Same as Environmental Studies Major, | ESG 100 Intro to Env Studies | ESG 263 | Intro to Remote Sensing |
| Core (2 courses or 6 credits) |  | ESG 265 | Atmosphere \& Weather |
|  | ESG 127 |  | Earth's Crust |
| ESG 462 Honours Thesis <br> Additional required: Any 2 courses (6 credits) from the ESG department |  |  | rshed Management |
|  | (21 credits) from the ESG department. | ESG 354 | Environmental Impact Assessment Glacial Environments |
|  |  | ESG 362 | Advanced GIS |
| Environmental Studies Minor | B.Sc. Environmental Science | ESG 363 | Na |
| (24 credits) | Environmental Science | ESG 364 | Field Course |
|  | Major (75 credits) | ESG 365 | Mid-Latitude Weather Systems |
| Core (3 courses or 9 credits) | 75 cred | ESG 367 | Climate Change |
| ESG 100 Intro to Env Studies | Core (13 courses or 39 credits) | Environmental Science |  |
| ESG 126 Intro Human Geography | MAT 198 Calculus I (for Life Sciences) | Honours (81 credits) HONENV |  |
| 127 Intro Physical Geography | MAT 199 Calculus II (for Life Sciences) | Same as Environmental Science Major, plus |  |
| Additional required: Any 5 courses ( 15 credits) from the ESG department | PHY 193 Physics for Life | Core (2 courses or 6 credits) |  |
|  |  <br> Lab PHL 194 | G 46 | onours Proposal |
| B.A. Geography | Lab PHL 194 | ESG 462 | Honours Thesis |
| Geography Major | General Chemistry I \& Lab CHL 191 | Environmental Science |  |
| (45 credits) <br> MAJGEO | General Chemistry II \& Lab CHL 192 | Minor (24 credits) <br> MINENV <br> Core (3 courses or 9 credits) |  |
| Core (5 courses or 15 credits) | Intro to Mol \& Cell Bio I \& Lab BIL 196 | ESG 100 | Intro to Env Studies |
| ESG 126 Intro Human Geography | BIO 207 Intro to Evolution \& Ecology | ESG 127 | Intro Physical Geography |
| ESG 127 Intro Physical Geography | ESG 100 Intro to Env Studies | ESG 261 | Quant. Methods |
| ESG 260 Research Methods | ESG 127 Intro to Physical Geography | OR PHY 101 | Statistical Methods |
| ESG 261 Quant. Meth <br> following: BM <br> or PHY 101) <br> ESG 262 Intro to GIS | ESG 260 | Additional required DNS courses: <br> Any 3 courses ( 9 credits) from the list of additional required DNS courses for the Environmental Science Major |  |
|  | $\begin{array}{ll}\text { ESG 261 } \\ \text { OR } & \text { Quant. Methods } \\ \text { PHY101 } & \text { Statistical Methods }\end{array}$ |  |  |
| Additional required: Any 10 courses (30 credits) from the ESG department |  | Additional required ESG courses: <br> Any 2 courses ( 6 credits) from the list of additional required ESG courses for the Environmental Science Major |  |
|  | Additional required DNS courses: <br> Any 5 courses ( 15 credits) from this list: <br> PHY 206 Waves and Optics \& Lab PHL 206 <br> PHY 207 Thermal and Fluid Physics |  |  |
|  |  |  |  |



| Minor in Sustainable Agriculture and Food |
| :---: |
| Systems (24 credits) MINSAF |
| AGR 100 Intro to Sustainable Agriculture and Food Systems |
| AGR 130 Environmental Implications of Agriculture |
| AGR 333 Climate Change, Agriculture and Food Security |
| Additional required: Any 5 courses ( 15 credits) from the list of AGR coded courses |
| Certificate in Sustainable Agriculture and |
| Food Systems (30 credits) CONSAF |
| AGR 100 Intro to Sustainable Agriculture and Food Systems |
| AGR 130 Environmental Implications of Agriculture |
| AGR 333 Climate Change, Agriculture and Food Security |
| Additional required: Any 7 courses ( 21 credits) from the list of AGR coded courses |

Minor in Sustainable Agriculture and FoodAGR 100 Intro to Sustainable Agriculture and Food SystemsAGR 130 Environmental Implications of AgricultureAGR 333 Climate Change, Agriculture and Food SecurityAdditional required: Any 5 courses ( 15 credits) from the list of AGR codedcourses
Certificate in Sustainable Agriculture and FOOd Systems (30 creditS)
AGR $100 \quad$ Intro to Sustainable Agriculture and Food Systems
AGR 130 Environmental Implications of Agriculture

Additional required: Any 7 courses ( 21 credits) from the list of AGR coded
courses

## List of Courses

ESG 100 Introduction to Environmental Studies 3-3-0 An introductory approach toward understanding the global environment and the human impact on this environment. Topics covered include processes operating in natural systems, the identification of problems caused by human interaction with these systems, solutions to these problems and the implementation of possible solutions.
ESG 126 Introduction to Human Geography
3-3-0
An introduction to the field of human geography; its scope and methods. The aim is to focus on the relationship between people and their environment, including population trends, resource use, political and economic forces and urban planning.
ESG 127 Introduction to Physical Geography
3-3-0
An introduction to the principles and methods of climatology and geomorphology. Topics discussed include Earth's radiation balance, atmospheric wind systems, major climate types, and the work of geomorphic agents, such as water and wind, on the development of physical landscapes.
ESG 162 Canada: A Nation of Regions
3-3-0
This course examines Canada's evolving regional geography through an exploration of the natural, social, political, cultural and economic forces involved in creating a distinctly Canadian landscape. The course divides Canada into various regions: The Atlantic Region, St. Lawrence-Great Lakes Lowlands, The Canadian Shield, The Western Interior, British Columbia and The North in an effort not only to understand the vast differences within Canada, but also to deepen our understanding of Canada as a whole.
ESG 163 Introduction to Landscape and Cultural Geography 3-3-0 Cultural geography is concerned with making sense of people and the places that they occupy, an aim that is achieved through analysis and understandings of cultural processes, cultural landscapes and cultural identities. This course explores contemporary cultural geography and landscape studies by applying and evaluating - at different scales - the concepts of cultural diffusion, cultural region, cultural ecology and cultural landscape. Particular attention will be placed on interpretations of how cultural spaces are constructed, contextualized and conserved.
ESG 175 Economic Geography $\quad \mathbf{3 - 0 - 0}$
The production of, and trade in, goods and services vary by city, region, and country. In recent years, these spatial variations have widened in some cases, and narrowed in others. But common to all are the drivers-of-change. These include major geo-political events, the adoption of innovative cost-saving practices, and the creation and evolution of entrepreneurial networks and industrial clusters. This course will explore the key elements of these dynamics, and explore the ongoing debate about the appropriate role of government in an increasingly-globalized world.
This course is cross-listed with ECO 175.

ESG 224 Human Impact on the Environment 3-3-0
Changing environmental relationships in the modern context of population growth and technological advance. The human impact on the world's atmosphere and climate, water, land and soils, vegetation, and animal life.
Prerequisite: ESG 100 or ESG 126
ESG 226 Physical Oceanography 3-3-0
An introduction to physical and geological oceanography. Topics to be covered include: the history of oceanography, plate tectonics and the origin of the oceans basins, marine sediments, seawater properties, ocean climates, geostrophic currents, deep ocean circulation, waves and tides.
Prerequisite: ESG 127
ESG 227 Biogeochemical and Environmental Oceanography 3-3-0 An introduction to marine life and the interaction between the oceans and society at large. Topics will include: biological productivity (phytoplankton, zooplankton), biogeochemical, cycles in the oceans, life in various marine habitats, marine resources, fisheries, mariculture, pollution, coastal development and other environmental issues affecting the oceans.
Prerequisite: ESG 226 or ESG 127
ESG 248 Geography of Food
This course examines the growing harvesting, processing, packaging, transporting, marketing, consumption, and disposal of food and food-related items. By employing spatial concepts and analysis the impacts of food systems on the natural environment, this course examines conventional/industrial food systems, as well as alternatives such as organic food, local food, community-supported agriculture, farmers' markets, slow food movements and others.
Prerequisites: ESG 100
ESG 249
Resource Management
3-3-0
This course examines the interactions between natural and social processes in the development, use and conservation of natural resources. Theories and concepts explored are: integrated resource management, ecosystem management, adaptive management and the role of public participation. Case studies explore trends in forestry, fisheries, agriculture, mining, wildlife and water management.
Prerequisites: ESG 100
ESG 250 Geomorphology
3-3-0
Selected topics in geomorphology with particular emphasis on fluvial processes and land forms of southern Quebec. Aspects of applied physical geography may be covered. Fieldwork is an integral part of this course.
Prerequisite: ESG 127
ESG 251 Soils and Vegetation
3-3-0
The systematic examination of the development and distribution of the major soil and vegetation types of the world and of the ways in which these elements of the physical environment have become resources subject to varying utilization patterns.
Prerequisite: ESG 127
ESG 260 Research Methods
3-3-0
An introduction to research methodology and its application to environment and geography. Course modules include research design, hypothesis testing, sampling techniques, interview techniques, archival techniques and other approaches to primary and secondary data gathering.
Prerequisite: any two of ESG 100, ESG 126, ESG 127 or AGR 100
ESG 261 Quantitative Methods 3-3-0
Quantitative methods in environment and geography; the nature of explanation; problems of observation and data collection; descriptive statistical analysis; inferential statistical analysis.
Prerequisite: any two of ESG 100, ESG 126, ESG 127 or AGR 100
ESG 262 Introduction to Geographic Information Systems 3-3-0 An introduction to geographic information systems including cartographic concepts, basic remote sensing (aerial photography and digital imagery), vector and raster digital spatial data models, data input and editing, database management, structured query language, and elementary spatial analysis.
Prerequisites: ESG 127
ESG 263 Introduction to Remote Sensing
3-3-0
An introduction to remote sensing including concepts and techniques, including air photo interpretation, satellite imagery and others, and their application in earth observation and analysis. Experiential learning is a part of this course, allowing student to do measurements and analysis using remote sensing instruments to apply and improve the theoretical knowledge acquired during class.
Prerequisites: ESG 127

ESG 264 Outdoor Recreation
3-3-0
This course examines: (i) theories and concepts concerning the recreational use of natural settings (the human dimensions), (ii) the nature, capabilities and limitations of natural settings (the natural dimensions) and, (iii) the institutional arrangements which exist to manage outdoor recreation settings (the management dimensions), including national parks and protected areas. This course involves multiple field trips.

## Prerequisite: ESG 100 or ESG 126

ESG 265 The Atmosphere and Weather
3-3-0
A comprehensive description of the principal characteristics of Earth's atmosphere including air temperature, density, pressure and moisture; the development of clouds, wind and precipitation, and physical explanations of weather events such as mid-latitude cyclones, thunderstorms and hurricanes.
Prerequisite: ESG 127
ESG 266 Environmental Policy
3-3-0
An introduction to the field of environmental policy, with an emphasis on the regulation of technological hazards. Consideration will also be given to different approaches to environmental policy, including "command-and-control" regulation and enforcement as well as the emergence of market incentives and voluntary initiatives. Topics will include: air quality, water quality, solid and hazardous waste, toxic substances, pollution-prevention and environmental assessment.
Prerequisite: ESG 100 or ESG 126
ESG 267 Global Environmental Change: a physical perspective 3-3-0 An examination of the general trends and concepts associated with global environmental change using a physical geographic approach. This includes analysis of the complex interlinkages of the atmosphere-ocean-terrestrialbiosphere systems, of environmental changes during the Quaternary Period, and of the environmental issues associated with these changes. The human response to global environmental change will be covered in less detail.
Prerequisite: ESG 100 and ESG 127
ESG 268 The Human Landscape and Environmental Change 3-3-0t This course uses various aspects of environmental change to identify links between the sciences and the humanities. A convergence of these two conceptual approaches can provide a more holistic understanding of the long-term processes impacting both human and physical environments. How different cultures conceptualise their relationships with the physical environment is central to how environmental management decisions are made.
Prerequisite: Any one of ESG 100, ESG 126, ESG 162 or ESG 163

## ESG 269 The Earth's Crust <br> 3-3-0

The course is a general study of the materials and dynamics of Earth's crust. Students will learn about igneous, metamorphic sedimentary rocks, rock weathering and transport of material at the surface. They will also learn the basic principles of physical geology and how the Earth works: volcanic activity, earthquakes, rock deformation, mountain building, and plate tectonics. We will also explore the vastness of geologic time.
Prerequisite: ESG 127
ESG 288 Underwater Environmental Assessment
This course examines human impact on the underwater environment, including limnology, and the monitoring and restoration of ecosystems affected by invasive species. The course also introduces students to the different tasks performed by a scientific diver: from the collection of samples, environmental monitoring and aquatic inventory, to the restoration operations. Specific scientific diving training including PADI Open Water certification, can lead to Diver-in-Training certification from the Canadian Association for Underwater Sciences (CAUS). Additional course fees will be charged to students for the diving instruction expenses.
Prerequisites: ESG 100
Outside academic Co-requisites: It is required that students also obtain First-Aid training with CPR and oxygen administration. This certification will be offered separately.
ESG 300 Environmental Studies Seminar
3-3-0
Selected topics in Environmental Studies will be examined. The course allows detailed study of particular areas of environmental research through student-led seminars and general class discussion.
Prerequisites: ESG 267; open only to U3 ESG Honours and Majors in Environmental Studies

ESG 339 The Canadian Arctic
3-3-0
The ecology of traditional Eskimo occupance; socio-economic change through contact with explorers, whalemen, traders, missionaries, and administrators. Demographic centralization; industrial development; nunamiut and kabloonamiut; frontier or homeland? The outlook for renewable resources. Problems of sovereignty over arctic space.
Prerequisite: Any one of ESG 100, ESG 126, ESG 162 or ESG 163

## ESG 340 The Circumpolar North

3-0-0
An introduction to the physical and cultural geography of the Circumpolar North. This course will focus upon the cultural and political ecology of the human population in this region. The emphasis will be upon the contexts of human life and human experience in the North. This course also includes discussions of the northern landscape: nunamiut and kabloonamiut; demographic centralization; challenges to sovereignty over arctic space. The emphasis will be on lectures and class participation. There will be time set aside to discuss lecture topics and to add concerns of interest to the students; class participation is highly encouraged.
Prerequisite: Any one of ESG 100, ESG 126, ESG 162 or ESG 163
ESG 346 Independent Study I / Internship I
3-0-0
The student is required to select an independent research project or internship, and, under the supervision of a faculty member, complete a formal report. Open to majors and honours students at the discretion of the Department.
ESG 347 Independent Study II / Internship II
3-0-0
The student is required to select an independent research project or internship, and, under the supervision of a faculty member, complete a formal report. Open to majors and honours students at the discretion of the Department.

## ESG 348 Urban Planning

3-3-0
Consideration of several aspects of the city planning process: the legal basis of planning, the official plan, zoning, transportation, planning procedure and implementation, the goals of planning.
Prerequisite: ESG 126.
ESG 349 Watershed - Management
3-3-0
This course examines integrated water management, the implications of natural resource development and land use on water quality and quantity, climate change impacts, water and food security, dams and diversions, as well as the role of stakeholder collaboration in watershed-scale assessment, planning and decisionmaking.
Prerequisite: ESG 100 or ESG 249

## ESG 350 Environmental Justice

3-3-0
An introduction to the field of environmental justice, with an emphasis on fairness and equity in environmental management. The course will examine the history of activism and the development of theoretical work and empirical evidence regarding the connections between race, class and the environment.
Prerequisite: ESG 100 or 126

## ESG 353 Landscape

3-3-0
This course explores landscapes as products of interacting physical and human processes, and examines how those processes can change landscapes over time. The course uses an integrated approach to examine and interpret contemporary landscapes and reconstruct landscapes of the past, and highlights the utility of landscape science for environmental management applications. The course will be conducted through lectures and student-led seminars.
Prerequisite: ESG 126 and ESG 127

## ESG 354 Environmental Impact Assessment

3-3-0
Environmental impact assessment (EIA) is intended to provide a basis for deciding whether and how to proceed with a proposed resource development project so as to prevent or minimize environmental degradation. This course will examine the theory, methods, regulatory frameworks and social implications of EIA with emphasis on recent Canadian case studies.
Prerequisite: ESG 100 or ESG 249

## ESG 358 International Environmental Issues

3-3-0
Environmental factors and their impact on global agricultural production, population growth and distribution. Fresh water and its effect on socio-economic development and political stability. Issues in trans-boundary pollution are discussed. Case studies from developed and developing countries.
Prerequisite: ESG 100 or ESG 126

ESG 361 Glaciers and Climate Change
3-3-0
The study of glaciers as monitors and indicators of climate change. Particular emphasis will be placed on the effects of present and past glaciations on climate and the key roles played by glaciers on climate change. Topics will include glacial influence on sea level rise, water resources and landscape creation, among others. Arctic and alpine environments provide many excellent examples of how glaciers influence climate change.
Prerequisite: ESG 250 or ESG 267
ESG 362 Advanced Geographic Information Systems
3-3-0
Project-based applications stress the utility of advanced GIS analysis in environment and geography.
Prerequisite: ESG 262
ESG 363 Natural Hazards
3-3-0
The course is an examination of the occurrence, nature and explanation of hazardous natural processes. Attention will be given to defining natural hazards, describing their physical characteristics and discussing the human response to these events. Geological hazards, such as earthquakes, floods and volcanoes, and climatological hazards, such as hurricanes, tornadoes and blizzards, will be studied.
Prerequisite: Any one of ESG 250, ESG 269 or ESG 265
ESG 364 Field Course in Environment and Geography 3-0-0
The course will introduce students to field techniques and data collection and analysis in human, environmental and physical geography. Sometimes offered during Spring semester, depending on faculty resources and student enrollments. A field camp fee will be assessed.
Prerequisite: Open to majors and honours students at the discretion of the Department.

ESG 365 Mid-Latitude Weather Systems
3-3-0
Examination of several of the major factors in mid-latitude cyclones including: air masses, upper and middle atmospheric structure, baroclinic instability, vorticity, divergence and geostrophic flow. Discussion of normal and extreme weather events such as blizzards, thunderstorms, extra-tropical cyclones, tornadoes and Nor'easters. An introduction to weather forcasting and weather on the internet. Prerequisite: ESG 265
ESG 366 Ethical Perspectives on Environmental Problems 3-3-0
An introduction to the major philosophical traditions in the field of environmental ethics: natural law, utilitarianism, virtue theory and deontology. The use of case studies in environmental problems, e.g. ocean dumping, nuclear wastes, air pollution, greenhouse gases, etc., as a way of exploring several contemporary positions such as biocentrism, ecocentrism, the land ethic and deep ecology.
Prerequisite: ESG 126 and ESG 127

## ESG 367

Climate Change
3-3-0
The course examines the debate surrounding global climate change with climatic and paleo-climatic perspectives. The climate system's natural variability, and predicted impacts and environmental implications are examined. The course will include a short review of the present climate system, and a section on the Holocene climate. We will also examine how predictive climate models are developed and tested against recent and Holocene paleo-climatic data.
Prerequisite: ESG 267
ESG 370 Special Topics in Environment and Geography 3-3-0 A lecture/seminar course offered by regular and visiting faculty on environmental/ geographical topics related to their research interests. Topics are determined by the instructor therefore content of the course varies year by year. The course will be offered on an occasional basis.
ESG 461a Honours Research Proposal 3-0-0
An introduction to the planning, execution and reporting of Environment and Geography research. The student is required to select an appropriate research project and, under the supervision of a faculty member, complete a formal research proposal. The proposal must include a detailed Introduction, including the purpose, objectives and research hypothesis, a detailed Conceptual Background, with associated Literature Review and Bibliography, and a description of the Research Methods and Data Collection Techniques to be used in the project. Preliminary data collection should also take place. The Proposal will be presented at a Departmental seminar to be scheduled during the last two weeks of classes. Prerequisite: Permission of Department
ESG 462b Honours Thesis
The continuation of ESG 461. Information and data collected for the Honours Research Proposal, plus additional data collected will be analysed, discussed and presented in an Honours thesis. Research findings will be presented at a Departmental seminar to be scheduled during the last two weeks of classes; the final submission of the thesis must occur before the last day of the formal
examination period. The completion of both ESG 461 and ESG 462 is necessary to satisfy the requirements for Honours in Environment and Geography.
Prerequisite: ESG 461 and permission of the Department

## AGR courses:

AGR-coded courses are associated with the Sustainable Agriculture and Food Systems (SAFS) programs. Not all AGR-coded courses will be offered until the full majors and honours programs are launched. However, students registered in Geography, Environmental Studies and Environmental Science majors or honours degrees can take AGR-coded courses as electives that will count toward their degree

## AGR 100 Introduction to Sustainable Agriculture and Food Systems

3-3-0
Conventional, industrial agriculture and fisheries are the source of the majority of our food, but are increasingly linked to economic injustice, loss of food security, and poor health, while also being criticized for being unsustainable, causing environmental degradation. Alternative food systems are emerging, providing innovative, sustainable, local, and organic solutions. This course provides an interdisciplinary survey of the environmental, social, economic and cultural aspects of agriculture and food, and outlines some of the emerging sustainable food systems. This course will help students develop an informed critique of conventional agricultural systems. This course will introduce the topics and skills to be learned during the rest of the program in sustainable agriculture and food systems.

## AGR 104 An Edible History of Humanity <br> 3-3-0

This course traces food through human history. Topics include: how the Neolithic period transformed hunter-gatherers to agriculturalists; how sedentary societies that store food create inequalities in wealth and power; how specialty products such as beaver-pelts and spices motivated exploration and colonization; how crops and fossil fuels expanded agricultural productivity, allowing many people to pursue non-farming occupations; how political leaders use power over food supply to mobilize armies and to crush dissent, and currently; how the 20th century Green Revolution solved some problems but now creates new ones.

## AGR 130 Environmental Implications of Agriculture 3-3-0

 When agricultural operations are sustainably managed, they preserve and even restore critical habitats, protect watersheds, and maintain soil health and water quality. On the other hand, some of the negative environmental impacts from unsustainable farming practices include: land conversion, deforestation and habitat loss, wasteful water consumption, soil erosion and degradation, pollution and contaminated runoff, climate change, genetic erosion and loss of resilience, toxicity to pollinators and other critical eco-system damage This course will expose students to the effects of these impacts, positive and negative, and introduce various indicators of environmental impact based on farmer's production methods, and the impact these methods have on emissions to the environment. The goal is an introductory ability to assess environmental impact at the farm level.AGR 171 Permaculture Design I: Design Principles 3-0-3 This course introduces students to permaculture design principles. Derived from "permanent agriculture", permaculture is the design and maintenance of agriculturally productive ecosystems which have the diversity, stability, and resilience of natural ecosystems. Permaculture is a multidisciplinary approach that utilizes systems thinking, as well as landscape design techniques, to create plans for food production, water use, energy use and habitat that mimic patterns observed in nature. Permaculture is applicable to a wide range of places, such as urban lots, schoolyards, municipal parks, and rural farms all over the planet, so students will be well-equipped to apply these principles in a variety of socioeconomic and environmental contexts. This course follows a standard worldwide format. Students who successfully complete AGR 171 and AGR 172 will obtain the internationally-recognized "Permaculture Design Certificate (PDC)".
AGR 172 Permaculture Design II: Design Project 3-3-3
AGR 172 is a follow-up course to AGR 171. Permaculture is an integrated design system for human food production, water and energy use, modeled on nature. AGR 172 is a continuation and deepening of the design principles and applications covered in AGR 171. Students in AGR 172 will perform various permaculture design practices in a variety of settings, for various needs. The course involves lab and field work, and requires completion of a significant design project. Students who complete both AGR 171 and AGR 172 will obtain an internationallyrecognized "Permaculture Design Certificate (PDC)", enabling them to work as a certified permaculturalist. An extra fee is required for the certificate.
Pre-requisite: AGR 171

AGR 174 Sustainable Agriculture Practicum I
3-0-6
This YEAR 1 Field Course occurs during the Spring Session, May to mid-June at the Campus Educational Farm. It involves planning the growing season, preparing the agricultural gardens, and planting, pruning and other early season activities. Pre-requisite: AGR 130 or Permission of the Department
AGR 175 Sustainable Agriculture Internship I 3-0-6
This course can replace AGR 174 Sustainable Agriculture Practicum I for qualified students who have arranged a practical agricultural experience or placement equivalent to that provided in AGR 174, to occur off-campus.
Pre-requisites: AGR 130 and Permission of the Department

## AGR 201 Market Gardening

3-2-1
This course explores the principles and practices associated with a Market Garden enterprise: a small-scale, intensive production of fruits, berries, vegetables, flowers, herbs, perennials, shrubs, seeds, bulbs and tubers, mushrooms and fungi, and more, as cash crops. Market Garden businesses frequently sell directly to consumers via local farmers' markets and community supported agriculture (CSA) and to local restaurants and inns. Market Garden enterprises are commonly characterized by their diversity of crops, grown on a small area of land, typically less than a hectare, and often in greenhouses. Principles and practices include: CSA initiatives, web and social media presence, product diversity, marketing, business plans, financing and capital, accounting and logistics, the regulatory environment, problem-solving and more. This course includes case studies, field trips to Bishop's Campus Educational Farm, the Bishop's Greenhouse, and local Market Garden enterprises.
AGR 202 Culture and Food 3-3-0
This course presents a social perspective on food and culture. It explores the distinctiveness of foods and food preparation within different cultures and their roles in the building of social identity. In a complementary way, the course also explores the universality of human experiences with food. Significant attention is paid to the role of food and societal food practices in the contemporary global era. Topics include food practices, food's role in socialization, identity, health and social change, as well as food marketing and the changing global food system.
AGR 203
Healthy Nutrition
3-3-0
This course surveys the basic principles of human nutrition, and is intended for students with limited science background. The primary aim of the course is to clarify the profound relationship between nutrition and human health, both current health and future health. Topics include health and disease effects due to overnutrition (focusing on macronutrients), malnutrition (focusing on micronutrients), weight management strategies, nutritional needs through the life cycle, public nutrition and the relationships between nutrition and chronic diseases.
AGR 204 Urban and Community Agriculture
3-3-0
This course examines various urban gardens (e.g. community gardens, war-time victory gardens, school, senior's residence, hospital, rooftop and other urban gardens) and addresses opportunities and impediments to starting and maintaining such a garden, as well as the social and environmental benefits to community gardening. Emphasis is placed on acquiring and communicating knowledge about the natural science processes that take place in a garden (e.g. nitrogen fixation, carbon dioxide sequestration, soil biodiversity and health), and the interactions that individuals and community groups have with the garden environment (e.g. environmental literacy, nutritional knowledge, life skills, problem solving). Field experience will take place at Bishop's Campus Educational Farm, as well as at local community gardens.
AGR 210 Food Science
3-3-0
This course provides an overview of the science of food preparation and transformation, focusing on the principles of sustainability: waste reduction, nutrient retention, minimization of packaging. Topics include food chemistry, analysis, microbiology, food safety assessment, product development, packaging, and the effects of processing on physico-chemical, rheological, and sensory characteristics.
Pre-requisites: BIO 194 or BIO 196 and CHM 191 and CHM 192
AGR 220 Soil Science 3-3-0
This course provides an introductory survey of soils and their management: properties of soils, soil formation, description, and use. The course focuses on the role of soils in sustainable agriculture, causes and processes of degradation (including erosion, pollution, and nutrient depletion), and the maintenance of healthy soils.
Pre-requisites: BIO 194 or BIO 196 and AGR 130
Co-requisite: AGL 220 - only offered once that SAFS majors are approved.

AGL 220 Soil Science Field Laboratory
1-0-6
This practical, field-lab course will focus on learning to obtain and use various indicators for assessing environmental impact, soil and water nitrate concentrations, soil bacteria level, soil acidity, water consumption, and more. The field labs will normally occur outdoors at the Campus Educational Farm.
Co-requisite: AGR 220
Note: AGL 220 is only offered once the SAFS majors are approved. Until then, AGR 220 has no lab associated with it.

## AGR 230 Ecological Agriculture

3-3-0
Ecological Agriculture is the science of sustainable agriculture. It emphasizes the interrelationships among soils, plants, insects, animals, humans and other components of agroecosystems, and applies ecological concepts and principles to the design and management of these systems. This course has various concepts, such as: diversification to maximize biomass production; waste and loss minimization techniques; by-product recycling; encouragement of decomposers and nitrogen fixers ; maintenance of soil fertility by humus application, crop rotations and correct application of farmyard manure; processing of farm products on the farm with direct sales to local consumers; integrative, ecological control of pests and weeds, ethical animal husbandry; utilization of wild-life and woodland; farm energy production off-grid; and minimization of capital investments.
Pre-requisite: AGR 130
Co-requisite: AGL 230 - only offered once the SAFS majors are approved.
AGL 230 Ecological Agriculture Field Laboratory 1-0-3
A Practical Course of small, field-based projects, implementing some of the concepts explored in AGR 230. The field labs will normally occur outdoors at the Campus Educational Farm, during the fall semester, before freeze-up in late November.
Co-requisite: AGR 230
Note: AGL 230 is only offered once the SAFS majors are approved. Until then, AGR 230 has no lab associated with it.

## AGR 270 Special Topics/Field Course in

Sustainable Agriculture and Food Systems I
3-1-5
A special topics seminar/field course offered by regular and visiting faculty on topics related to their research interests in sustainable agriculture and food systems. Topics are determined by the instructor and may include case-studies, projects and farm and agri-business visits, with the result that content of the course varies from one offering to the next. The course will be offered on an occasional basis.
Pre-requisites: AGR 100 or AGR 130

This intensive YEAR 2 Field Course occurs during the Summer Session, mid-
June to end-July, at the Campus Educational Farm. It involves managing and maintaining the farm and gardens (under the direction of the Farm Technician), harvesting and distributing the early crops, and planning and designing future projects.
Pre-requisite: AGR 174
AGR 275 Sustainable Agriculture Internship II 9-0-18
This course can replace AGR 274 Sustainable Agriculture Practicum II for qualified students who have arranged a practical agricultural experience or placement equivalent to that provided in AGR 274, to occur off-campus.
Pre-requisites: AGR 174 and Permission of the Department
AGR 303 Food Preparation and Preservation 3-1-3
This course presents an overview of food processing and food preservation, including temperature and water activity control, pasteurization, refrigeration and freezing, drying, fermentation, additives, irradiation, and others. Students will examine sustainability issues associated with food preparation and preservation practices. The course will contain theoretical, practical and experiential aspects, and feature invited guest speakers from the food handling community. As part of this course, students will have the opportunity to obtain their official "Food Handler Certification" from the Canadian Institute of Food Safety (at extra cost), which meets Canada's and Quebec's legal requirement for food safety training.

## AGR 304 Agritourism

3-3-0
Agritourism includes farm stands or shops, U-pick, farm stays, tours, on-farm classes, fairs, festivals, pumpkin patches, corn mazes, Christmas tree farms, winery weddings, orchard dinners, youth camps, barn dances, hunting or fishing, guest ranches, and more. Food and wine tourism is a rapidly growing sector of tourism, which reflects changing lifestyles and increasing diversification within the tourism industry. This course explores the development of the food and wine tourism industry, the concept and size of agritourism, food and wine business development, marketing and broad trends affecting tourism enterprises within this sector - with case studies and field visits within the Eastern Townships region of Quebec.

AGR 305 Agricultural Entrepreneurship
3-3-0
Agricultural Entrepreneurship is designed to provide students with an understanding of the key concepts and processes involved in starting and managing new ventures in an agricultural, agritourism or food business. These concepts include: opportunity recognition, business model conceptualization, feasibility analysis, understanding market structure and niche markets, customer values, new product development, raising start-up capital, and development and management of successful new ventures. The course is appropriate for students interested in a variety of new ventures, from for-profit private companies to social enterprises and cooperatives.
Pre-requisites: AGR 100
AGR 311 Agricultural Pests and Integrated Pest Management 3-3-0 This course presents the principles of sustainable Integrated Pest Management (IPM) and teaches their application vegetable and fruit and berries production. Sustainable IPM principles include no disruption to agro-ecosystems, natural pest control mechanisms, and no synthetic pesticides. The course begins with a survey of pests, plant pathogens, diseases and weeds, continues with non-chemical and biological means of control, monitoring and forecasting methods, and ends with sustainable practices and discussion of the techniques employed for IPM on the Campus Educational Farm.
Pre-requisite: AGR 130
AGR 333 Climate Change, Agriculture, and Food Security 3-3-0
This course examines the role that agriculture plays in climate change as a producer of greenhouse gases, and how this intersects with food security concerns around the globe. Likewise, the course examines how climate change impacts agriculture and food security. Agriculture's role as mitigating agent in climate change, through various peasant practices and modern innovations, and their effect on food security is examined.
Pre-requisites: AGR 100 or AGR 130
AGR 341 Sustainable Food Systems
3-3-0
Agriculture and food industries are a subject of growing interest in terms of their resource requirements, ecological impacts, and sustainability. This course builds on concepts encountered in AGR 100, and other program courses, field courses and practica. It examines methods of modeling and analysis used to study food systems, and give students opportunities to conduct case study analyses. Finally, students will learn how models might be relevant to the development of policy related to local and regional food systems or dietary changes to reduce environmental impact.
Pre-requisites: AGR 100
AGR 343 Agroecology
3-3-0
This course will expose students to the growing field of agroecology, an integrated approach that applies both ecological and social principles to the design and management of food and agricultural systems. Agroecology is a transdisciplinary, participatory and action-oriented process that seeks to optimize the interactions between plants, animals, humans and the environment. This course examines how agroecology can be utilized to transform agriculture and food systems and how to employ agroecological solutions in response to a variety of environmental or social obstacles (e.g., diversified systems, the co-creation of knowledge, promoting gender equality, etc.).
Pre-requisites: AGR 100
AGR 344 Indigenous Food Systems 3-3-0
This course examines the food systems of Indigenous peoples. Students will be exposed to the wide range of historical and contemporary food systems, practices and issues that impact Indigenous communities all around the world, and their connections to the ecosystems that support them. Furthermore, this course examines how these relationships have transformed over time and current threats to Indigenous food culture.
Pre-requisites: AGR 100 and AGR 104
AGR 370 Special Topics/Field Course in Sustainable Agriculture and Food Systems II

3-1-5
A third year special topics seminar/field course offered by regular and visiting faculty on topics related to their research interests in sustainable agriculture and food systems. Topics are determined by the instructor and may include casestudies, projects and farm and agri-business visits, with the result that content of the course varies from one offering to the next. The course will be offered on an occasional basis.
Pre-requisites: AGR 100 or AGR 130

AGR 461 Honours Proposal in Sustainable Agriculture and Food Systems

3-0-0
This course provides an introduction to the planning, execution and reporting of Sustainable Agriculture and Food Systems research. The student is required to select an appropriate research project and, under the supervision of a faculty member, complete a formal research proposal. The proposal must include a detailed Introduction, including the purpose, objectives and research hypothesis, a detailed Conceptual Background, with associated Literature Review and Bibliography, and a description of the Research Methods and Data Collection Techniques to be used in the project. Preliminary data collection should also take place. The Proposal will be presented at a Departmental seminar to be scheduled near the end of the semester.
Prerequisite: Permission of Department.
As per department policy, a minimum cumulative grade average of $70 \%$ is required to be admitted into AGR 461.

## AGR 462 Honours Thesis in Sustainable Agriculture and Food Systems

This course is a continuation of AGR 461. Information and data collected for the Honours Research Proposal, plus additional data collected will be analysed, discussed and presented in an Honours thesis. Research findings will be presented at a Departmental seminar to be scheduled during the last two weeks of classes; the final submission of the thesis must occur before the last day of the formal examination period. The completion of both AGR 461 and AGR 462 is necessary to satisfy the requirements for Honours in Sustainable Agriculture and Food Systems.
Prerequisite: AGR 461 and permission of the Department.
As per department policy, a minimum of $75 \%$ in $A G R 461$ is required to be admitted into AGR 462.

AGR 471 Experiential Learning in Sustainable Agriculture and Food Systems I

3-0-0
The aim of this course is to expose students to the application of what they have learned with a practical, field project or placement. Students will be expected to engage in a project or field placement, with off-campus, community projects preferred. A project proposal will be required. Each experiential learning project will include an "external supervisor", and an internal supervisor (a departmental faculty member). The project will be expected to take significant time to complete, at least 100 hours. The student's performance during the practical work will be evaluated by the external supervisor. The student will also be required to produce a final report concerning the project outcomes, and/or a presentation of the findings. The course is normally restricted to students with a cumulative average grade of at least 70\%.
Prerequisite: This course may only be registered during the final 30 credits of the student's program and by permission of the Department.

## AGR 472 Experiential Learning in Sustainable Agriculture and Food Systems II <br> 3-0-0

This course follows the same course structure and requirements as AGR 471, and builds further depth in this field of study.
Prerequisite: AGR 471 and by Permission of the Department.

## Politics and <br> International Studies

## Faculty

## Don Dombowsky,

B.A. (Concordia), M.A. (New School for Social Research), Ph.D. (Ottawa);
Associate Professor
Gilbert Gagné,
B.A., B.Soc.Sc., M.A.(Ottawa), D.Phil.(Oxford); Full Professor
Chair of the Department
Sarah-Myriam Martin-Brûlé
B.Sc., M.Sc. (Montréal), Ph.D. (McGill);

Associate Professor
Heather McKeen-Edwards,
B.A. (Manitoba), M.A., Ph.D. (McMaster); Associate Professor

Andrew J. Stritch, B.A. (Exeter), M.A. (Lancaster), Ph.D. (Queen's); Full Professor

Jerald Sabin,
B.P., A.P.M., M.A. (Carleton), Ph.D. (Toronto; Assistant Professor

## Trygve Ugland,

Cand.mag., Cand.polit.(Oslo and Queen's Belfast), Dr.polit.(Oslo);
Full Professor

## Program Overview

Knowing the political system increases one's capacity for choice. Therefore, a knowledge of how political systems work in Canada and abroad, as well as the impact of globalization on the emergence of a new international economic and political order, presents a student with not only an understanding of power, authority and decision making in the system but also with greater opportunities and advantages within their society. Lectures, seminars and individual tutorials are normal methods of instruction and the department stresses personal contact with students as much as possible in order to assist them in choosing a postgraduate career in government, business, non-profit or the academic fields. Guest lectures are given by visiting politicians, academics, interest group representatives and industry leaders.

The department offers the following programs of study: Honours, Major and Minor in Political Studies; Honours, Major and Minor in International Studies; Honours and Major in International Political Economy.

## Credit Requirements for Programs Offered by the Department

Credits Required

| PROGRAM | Honours^* | Major^ | Minor |
| :--- | :--- | :--- | :---: |
| Political Studies | 60 | 48 | 24 |
| International Studies | 60 | 48 | 24 |
| International |  |  |  |
| Political Economy** | 60 | 48 | X |
| ^ Students in any major or honours program must also complete |  |  |  |
| a one-credit lab course - ILT 104. |  |  |  |
| * Grade requirements - To enter or continue in an Honours pro- |  |  |  |
| gram, students must normally obtain and sustain a cumulative |  |  |  |
| average of 75\%. This minimum cumulative average must be met |  |  |  |
| in order to graduate with the honours degree. |  |  |  |
| ** Offered jointly by the Department of Politics and |  |  |  |
| International Studies and the Department of Economics. |  |  |  |

## Cross Counting and Program limits

- A maximum of 9 POL credits ( 3 courses) can be counted towards the multiple Honours/Majors and Minors in the Department of Politics and International Studies.
- The maximum number of Honours/Majors/Minors (POL, INT, IPE) offered through the Department that a student can simultaneously register in is limited to two (2).


## Political Studies -

## Programs and Requirements

Political Studies provides students with a working knowledge of power and authority in society and how decisions are made. Governments, politicians, leaders in private industry and ordinary individuals function within a framework of accepted political norms, e.g. notions of justice, freedom, rights and duties. Over time, these received norms are challenged by conventional methods such as voting, political parties, interest group lobbying and protest movements; or the challenge may be by militant, revolutionary or terrorist means. Political Studies systematically examines and presents these phenomena. This program looks at the Canadian political system, as well as other systems around the world, and considers conflict and cooperation between states internationally. It also allows for a critical evaluation of society and its institutions through a study of the history of political theory. The program is divided into six divisions: I) Canadian Politics, II) Political Theory, III) Comparative Politics, IV) International Relations, V) Research Theory and Methods, VI) Honours Thesis, Independent Studies, Practicum and Internships.

## Honours in Political Studies (60 credits)

HONPOL

## Major in Political Studies

## Required Courses

| POL 100 | Introduction to Political Theory |
| :--- | :--- |
| POL 101 | Introduction to Comparative Politics |
| POL 112 | Introduction to Canadian Politics |
| POL 140 | Introduction to International Relations |
| POL 229 | History of Political Philosophy - Modern |
| POL 262 | Methods and Approaches to Political Science |
| POL 361 | Techniques of Empirical Research |
| ECO 103 | Principles of Economics: Macroeconomics |
| ILT 104 | Information Retrieval and Evaluation Skills for |
| the Social |  |

Plus either:
Two POL courses at the 400 level
Or
POL 550 Honours Thesis (6 credits)

## Plus Structured Electives in Political Studies:

One additional course from the Political Theory division
One additional course from the Canadian Politics division
Two additional courses from the Comparative Politics division
Two additional courses from the International Relations division

## Plus Free Electives in Political Studies

12 additional POL credits (4 POL courses)
Additional note: To enter and to remain In the Honours program, students must normally attain a cumulative average of $75 \%$ in program courses. Honours students who do not meet this cumulative average requirement at graduation will automatically revert to the Major program.

## Honours Thesis and Independent Study

The Honours Thesis and Independent Study courses are open only to advanced level Honours students. They are offered exceptionally and at the discretion of the Department. These courses are also governed by departmental regulations that are available from the Chair of the Department.

## Cognate Courses

Honours students are normally expected to take at least 60 credits of Political Studies courses. However, students in their final thirty (30) credits of study, may petition the Department for authorization to take six (6) credits of cognate courses. This is to be done immediately following the formal registration period, but before the last day in the semester to add, drop or change all threecredit courses. It is understood that this is an exceptional measure to be granted at the discretion of the Department.

## Required Courses

POL 100 Introduction to Political Theory
POL 101 Introduction to Comparative Politics
POL 112 Introduction to Canadian Politics
POL 140 Introduction to International Relations
ILT 104 Information Retrieval and Evaluation Skills for the Social Sciences ( 1 credit lab)

Plus one of:
POL 262 Methods and Approaches to Political Science
POL 361 Techniques of Empirical Research
Plus Structured Electives in Political Studies:
One additional course in the Canadian Politics division.
Two additional courses in the Comparative Politics division.
Two additional courses in the International Relations division.
Plus one of:
POL 228 History of Political Philosophy - Ancient, Medieval, Renaissance
POL 229 History of Political Philosophy - Modern

## Plus Free Elective in Political Studies

15 additional POL credits (5 POL courses)

## Independent Study

Independent study is open primarily to Honours students, but may be offered to advanced level Major students, who maintain a $75 \%$ average in Political Studies. These courses are offered exceptionally and at the discretion the Department. They are also governed by departmental regulations that are available from the Chair of the Department.

## Cognate Courses

Major students are normally expected to take at least 48 credits in Political Studies courses. Students in their final thirty (30) credits of study may seek Departmental authorization for a three-credit cognate. It is understood that this is an exceptional measure to be granted at the discretion of the Department.

## Minor in Political Studies (24 credit program)

## Required Courses

POL 100 Introduction to Political Theory
POL 101 Introduction to Comparative Politics
POL 112 Introduction to Canadian Politics
POL 140 Introduction to International Relations

## Plus Free Electives in Political Studies:

12 additional POL credits

## 400-Level Courses

Not normally open to students in the regular Minor program.

## Independent Study

Not normally open to students in the regular Minor program.

## Cognates

No cognate courses are allowed in the regular Minor program.

## International Studies - <br> Programs and Requirements

The International Studies programs provide students with working knowledge of the global community in which they live, and prepare them to pursue careers involving international interactions. The programs consist of an integrated group of courses reflecting international aspects from cultural, economic, environmental, legal, political and social perspectives. Foreign language training and study abroad experiences are also incorporated into the programs.

## Honours in International Studies

(60 credit program)
HONINT
Honours in International Studies involves some required POL courses, some language courses, a semester abroad, and additional courses within one of two concentrations.

## Required Courses (33 credits):

POL 101 Introduction to Comparative Politics
POL 140 Introduction to International Relations
POL 262 Methods and Approaches to Political Science
ILT 104 Information Retrieval and Evaluation Skills for
the Social Sciences ( 1 credit lab)
Plus one of:
POL 241 International Affairs
POL 242 International Organizations
Plus three of:
POL 141 Introduction to Diplomacy
POL 240 International Political Economy
POL 338 International Law and Human Rights
POL 340 Strategic Issues: Questions of War and Peace
POL 345 Introduction to Public International Law
POL 352 United Nations Practicum I
Plus:
Two POL courses at the 400 level
Or
POL 550 Honours Thesis ( 6 credits)
Plus:
Four language courses (at least two of which must be at an advanced level)

Plus:
One semester exchange abroad
Or
International Studies Internship

## Plus Elective Courses ( 21 credits)

Students choose one of the following two concentrations:
Global Governance Concentration: Seven (7) courses from the Global Governance concentration list

Global Culture Concentration: Seven (7) courses from the Global Culture concentration list

## Notes:

1) To enter and to remain In the Honours program, students must normally attain a cumulative average of $75 \%$. Honours students who do not meet this average requirement at graduation will automatically revert to the Major program.

## 2) Language Courses:

a. 12 credits of language courses other than the student's mother tongue. The language courses can be taken at Bishop's or from a program at another university, approved by the Department of Politics and International Studies and the Department of Modern Languages.
b. Depending on a student's entry-level competence, extra courses at the beginner or intermediate level might be required.
c. Upon entering the program students should (a) consult with the appropriate Modern Languages faculty, regarding the language requirements for the program and (b) familiarize themselves with the language competency required for any intended exchange destinations.
d. Students with no previous familiarity with a foreign language should anticipate two years of study (normally a minimum of 6 courses) in order to attain a level adequate for exchange studies in that language. This may vary according to the country of exchange.
e. To count as language courses, culture courses in Modern Languages should be taught in the language being credited. For students pursuing English as the language option, English-language courses coded ESL as well as CDC 100 and ENG 116 are accepted.
3) Any additional required course can count as one of the electives in either of the two concentrations. In addition, students who have passed both POL 241 and POL 242 need take only two further courses from the third required list.
4) POL 441, POL 442, and POL 443 cannot be simultaneously counted as electives in the Global Governance concentration and as fulfilling the 400-level course requirement.
5) The addition of a Minor language concentration (8 courses) to the Major in International Studies is strongly recommended.
6) Students taking the International Studies Honours will normally be required to spend a semester at one of the many universities abroad with which Bishop's has an exchange program. Such programs are developed in consultation with the Chair of the Politics and International Studies Department. Note, however, that students must normally maintain a $70 \%$ average to be eligible for the exchange program.

POL 300 - International Studies Internship OR
INT 300 - International Development Assistance Internship may substitute for an exchange.

## Major in International Studies (48 credit program)

MAJINT
A major in International Studies involves some required POL courses, some language courses, and some courses within one of two declared concentrations. Students are also encouraged to spend a semester studying abroad.

## Required Courses ( $\mathbf{3 0}$ credits):

POL 101 Introduction to Comparative Politics
POL 140 Introduction to International Relations
POL 262 Methods and Approaches to Political Science
ILT 104 Information Retrieval and Evaluation Skills for
the Social Sciences (1 credit lab)
Plus one of:
POL 241 International Affairs
POL 242 International Organizations
Plus three of:
POL 141 Introduction to Diplomacy
POL 240 International Political Economy
POL 338 International Law and Human Rights
POL 340 Strategic Issues: Questions of War and Peace
POL 345 Introduction to Public International Law
POL 352 United Nations Practicum I
Plus:
Four language courses (at least two of which must be at the intermediate or advanced level)

## Plus Elective Courses ( 15 credits)

Students choose one of the following two concentrations:
Global Governance Concentration: Five (5) courses from the Global Governance concentration list

Global Culture Concentration: Five (5) courses from the Global Culture concentration list

## Notes:

1) Language Courses:
a. 12 credits of language courses other than the student's mother tongue. The language courses can be taken at Bishop's or from a program at another university, approved by the Department of Politics and International Studies and the Department of Modern Languages and the Département d'études françaises et québécoises.
b. Depending on a student's entry-level competence, extra courses at the beginner or intermediate level might be required.
c. Upon entering the program students should (a) consult with the appropriate Modern Languages and Études françaises et québécoises faculty, regarding the language requirements for the program and (b) familiarize themselves with the language competency required for any intended exchange destinations.
d. To count as language courses, culture courses in Modern Languages should be taught in the language being credited. For students pursuing English as the language option, English-language courses coded ESL as well as CDC 100 and ENG 116 are accepted.
2) Any additional required course can count as one of the electives in either of the two concentrations. In addition, students who have passed both POL 241 and POL 242 need take only two further courses from the third required list.
3) Students are strongly encouraged to consider taking an International exchange abroad during the course of their degree.
4) The addition of a Minor language concentration (8 courses) to the Major in International Studies is recommended.

## Global Governance Concentration

BMG 222 International Business Law
ECO 103 Principles of Economics: Macroeconomics
ECO 217 International Economics
ECO 220 Economic Development I
ECO 237 Economics of the Environment
ESG 358 International Environmental Issues
HIS 229 Human Rights and Humanitarian Organizations
POL 170 Introduction to European Politics
POL 172 Introduction to American Politics
POL 173 US Government and Public Policy
POL 231 European Union: History, Institutions and Policies
POL 232 Politics in Asia
POL 233 Politics of the Iberian Peninsula
POL 234 Politics of Africa
POL 235 American Political Economy
POL 236 Introduction to Middle Eastern Politics
POL 237 Politics of Japan
POL 238 Political Economy in Asia
POL 239 Politics of Russia and Eastern Europe
POL 245 American Foreign Policy
POL 249 Canadian Foreign Policy
POL 277 European Diplomacy Since 1914
POL 317 Globalization and the Canadian State
POL 330 Topics in US Public Policy
POL 331 Canada-EU Relations
POL 333 Internationalization of European Public Policies
POL 335 Politics of Latin America and the Caribbean
POL 343 Canadian-American Relations
POL 344 Politics of International Trade and Investment
POL 346 Politics of Global Finance
POL 347 Scandinavian Politics
POL 354 United Nations Practicum 2
POL 441 Theories of International Relations
POL 442 Issues in Global Governance
POL 443 Peacekeeping

## Global Culture Concentration:

DRA 170 Introduction to Film
ENG 102 Approaches to Media Studies
ENG 352 Canadian Literature and Theories of Globalization
FIH 240 Art, Popular and Mass Culture
FIH 314 Colonial and Postcolonial Issues in the Visual Arts
GER 270 Introduction to German Film
GER 271 East German Cinema
GER 289 History and Memory in Berlin
GER 290 (De)Constructing Identity in Vienna
HIS 105 The 20th Century World
HIS 108 A Global History of Indigenous Peoples

History of Modern Southeast Asia
HIS 256 Latin America 1800 to the Present
HIS 284 History of Modern China
HIS 384 Memory, Truth and Reconciliation
ITA 309 Italian Cinema and Society
ITA 311 Italian Civilization and Culture
JSE 150 Japanese Society and Culture
REL 100 Western Religions
REL 101
Eastern Religions
REL 124
Hinduism: The Many Faces of the Divine
REL 125 Buddhism: The Middle Way
REL 126
Judaism: A Covenant With God
REL 127 Islam: Submission to Allah
REL 200 Politics and Religion
REL 302 Of Latter-day Saints and Modern-day Prophets:
New Religious Movements
SOC 190 Introduction to Post-colonialism
SOC 223 Women and Global Inequality
SOC 294 Sociology of Tourism
SOC 296 Globalism and Culture
SPA 311 Spain: Civilization and Culture
SPA 313 Mexico: Civilization and Culture
SPA 314 The Central American Region and the Spanish Caribbean: Civilization and Culture
SPA 317 The Southern Cone and the Andean Region: Civilization and Culture
SPA 318 Spanish Cinema
SPA 319 Topics in Hispanic Culture
** Note that some of the courses in either concentration may have one or more pre-requisites. Not all courses are offered on a regular basis and some courses have limitations on enrolment.

## Minor in International Studies ( 24 credit program)

## Required Courses

POL 101 Introduction to Comparative Politics
POL 140 Introduction to International Relations
Plus one of:
POL 241 International Affairs
POL 242 International Organizations
Plus three of:
POL 141 Introduction to Diplomacy
POL 240 International Political Economy
POL 338 International Law and Human Rights
POL 340 Strategic Issues: Questions of War and Peace
POL 345 Introduction to Public International Law
POL 352 United Nations Practicum I
Plus:
Two language courses at any level.

## Notes:

## Language Courses

6 credits of language courses other than the student's mother tongue. The language courses can be taken at Bishop's or from a program at another university, approved by the Department of

Politics and International Studies and the Department of Modern Languages.

To count as language courses, culture courses in Modern Languages should be taught in the language being credited. For students pursuing English as the language option, Englishlanguage courses coded ESL as well as CDC 100 and ENG 116 are accepted.

## International Political Economy Programs and Requirements

The International Political Economy program provides students with the tools to understand the interaction between economic and political forces in the global environment. Offered jointly by the Departments of Economics and the Department of Politics and International Studies, this area of inquiry examines the complexities of the increasingly interdependent global economy and its relationship to decisions about the governance and redistribution of resources locally, nationally and globally. In the process, students will be able to see how their individual decisions and local environments are intertwined with a worldwide system of economic and political processes that affect people around the globe.

The B.A. Major Program in International Political Economy consists of at least 48 credits, with 24 credits drawn from Politics and International Studies and 24 from Economics. The Honours program in International Political Economy consists of at least 60 credits, with 30 credits drawn from Politics and international Studies and 30 from Economics.

## Honours in International Political Economy (60 credit program) HONIPE

## ILT 104

Information Retrieval and Evaluation Skills for the Social Sciences
(1-credit lab)
Economics Requirements (30 credits)

## Required Courses:

ECO 102 Principles of Economics: Microeconomics
ECO 103 Principles of Economics: Macroeconomics
ECO 212 Intermediate Macroeconomics I
ECO 270 Public Economics
Plus one of:
ECO 175 Economic Geography
ECO 217 International Economics
ECO 220 Economic Development I
ECO 251 History of Economic Thought I
ECO 280 Contemporary Perspectives in Political Economy
Plus Free Elective Courses in Economics:
15 credits
Politics and International Studies Requirements (30 credits)

## Required Courses:

POL 101 Introduction to Comparative Politics
POL 140 Introduction to International Relations
POL 240 International Political Economy
POL 361 Techniques of Empirical Research
Plus two of:
POL 229 History of Political Philosophy - Modern
POL 235 American Political Economy
POL 241 International Affairs
POL 242 International Organizations
POL 317 Globalization and the Canadian State
POL 344 Politics of International Trade and Investment
POL 346 Politics of Global Finance
Plus:
One POL 400 level course
Plus Free Elective Courses in Politics and International Studies: 9 credits (3 POL courses)

Note that some of these courses may have prerequisites or, alternatively, require permission from the instructor.

To enter and remain in the Honours program, students must normally attain a cumulative average of $75 \%$ in program courses. Honours students who do not meet this average requirement at graduation will automatically revert to the Major program.

# Major in International Political Economy (48 credit program) 

ILT 104 Information Retrieval and Evaluation Skills for the Social Sciences
(1-credit lab)
Economics Requirements (24 credits)

## Required Courses:

ECO 102 Principles of Economics: Microeconomics
ECO 103 Principles of Economics: Macroeconomics
Plus one of:
ECO 175 Economic Geography
ECO 217 International Economics
ECO 220 Economics Development I
ECO 251 History of Economic Thought I
ECO 270 Public Economics
ECO 280 Contemporary Perspectives in Political Economy

## Plus Free Elective Courses in Economics:

15 credits
Politics and International Studies Requirements (24 credits)

## Required Courses:

POL 101 Introduction to Comparative Politics
POL 140 Introduction to International Relations
POL 240 International Political Economy
Plus two of:
POL 229 History of Political Philosophy - Modern
POL 235 American Political Economy
POL 241 International Affairs
POL 242 International Organizations
POL 317 Globalization and the Canadian State

POL 344
Politics of International Trade and Investment
POL 346 Politics of Global Finance

Plus Free Elective Courses in Politics and International Studies: 9 credits (3 POL courses)
Note that some of these courses may have pre-requisites or, alternatively, require permission from the instructor.

## List of Courses

## I. Canadian Politics

POL 112 Introduction to Canadian Politics 3-3-0
An analysis of the Canadian political process. This course will examine the social and economic environment of Canadian politics, political culture and socialization, political participation, voting behaviour, political parties and interest groups.
POL 118 Constitutional Law and Canadian Government 3-3-
An analysis of the impact of leading constitutional decisions on the structure of Canadian government.
POL 213 Canadian Sport System and Policy 3-3-0
This course examines the key sport policy and governance issues in Canada. Students will develop an understanding of the bodies and organizations that guide the delivery and regulation of sport, and the resulting multilevel policy system that integrates the public, private, and not-for-profit sectors. They will also develop an understanding of policy analysis and sport governance models.
POL 214 Public Administration
3-3-0
An introduction to the theory and practice of public administration in Canada. The structure of the public service, organization theory and motivation theory, public planning and finance, public personnel administration, the growth of administrative discretion and administrative responsibility will be studied.
Prerequisite: One POL 100-level course or permission of instructor
POL 216 Canadian Provincial and Territorial Politics 3-3-0
A comparative analysis of contemporary trends in provincial and territorial politics, with special emphasis on Quebec. The structures and processes of provincial and territorial policy making will be examined. Topics include regional political development, provincial and territorial political cultures, Indigenous-provincialterritorial intergovernmental relations, and policy development in such areas as health, education, language and resource development.
Prerequisite: POL 112, or permission of instructor
POL 217 Business and Government in Canada
3-3-0
This course examines the relation between business and government in Canada. It focuses on the ways that business seeks to influence public policy as well as the role of Canadian governments in supporting business interests, both historically and in contemporary politics. It also examines the ways business advocacy has adapted to changing government structures and looks at the response of business to challenges faced in the public policy process.
Prerequisite: POL 112, or permission of instructor
POL 246 The Politics of Gender and Sexuality 3-3-0
A theoretical and empirical study of the relationships among gender, sexuality, and politics in Western democracies, with a special emphasis on Canada. Drawing upon feminist, queer, and intersectional theories, the course explores such issues as reproductive rights, LGBTQ politics, trans* rights movements, sex work, political masculinity, and the representation of women in politics.
POL 249 Canadian Foreign Policy
3-3-0
An analysis of the development of Canadian foreign policy and defense policy. Canada's relations with the Superpowers, the European Union and the Third World will be studied. Topics will include Canada's role in the U.N. and N.A.T.O., Canada's antinuclear diplomacy, and Canada's domestic interests in relation to energy, the Law of the Sea and aerospace law.
Prerequisite: POL 140, or permission of instructor
POL 315 Indigenous-Settler Intergovernmental Relations 3-3-0
This course examines contemporary intergovernmental relations between Indigenous and settler governments in Canada. The course emphasizes political science approaches to Indigenous-settler relations that are grounded in postcolonial, settler colonial, and institutional theory. Topics include treaty federalism; the incorporation of indigenous political and legal orders within Canadian constitutionalism; the political and administrative development of Indigenous government; and federal/provincial/territorial policy relationships
with Indigenous peoples. State-based responses to reconciliation are explored. Contemporary developments in Yukon, the Northwest Territories, and Nunavut are highlighted.
Prerequisite: POL 112
POL 317 Globalization and the Canadian State 3-3-0
In this course, the effects of the multilateral (World Trade Organization) and continental (North American Free Trade Agreement) trading systems on the Canadian state are analyzed. In particular, the effects of recent economic and technological forces on Canadian political processes and structures and on selected public policies will be examined.
POL 318 Elections, Parties and Voters in Canada 3-3-0 This course examines some of the defining features of Canadian democracy: elections, parties and voters. It focuses on Canada's electoral system, election campaigns, the structure, function and role of parties, and factors which influence the preferences of voters.
Prerequisite: POL 112
POL 410 Selected Topics in Canadian Politics and Public Policy 3-3-0 An analysis of selected topics in Canadian public policy from a comparative theoretical perspective. Lectures and seminars.
Honours students only or permission of instructor.

## II. Political Theory

## POL 100 Introduction to Political Theory

3-3-0
A study of the foundational principles of democracy, conservatism, liberalism, feminism, nationalism, socialism, Marxism and anarchism, as developed in political writings from the $18^{\text {th }}$ and ${ }^{19 \mathrm{hh}}$ centuries.

## POL 223 /

CLA 223 Democracy in the Ancient World
3-3-0
The idea of government by the people is highly valued today, but it was first given the name of "demokratia" (democracy) in ancient Greece. The most famous example in Greece is Classical Athens, but democratic elements appeared in many other ancient states, including republican Rome. The course will examine in detail how democracy worked in Athens, Rome, and various other ancient societies: how it began, who could participate, who was left out, what ancient writers thought of it and what were the results of democratic government on those inside and outside of the community.
POL 228 History of Political Philosophy Ancient, Medieval, Renaissance

3-3-0
A study of the history of political philosophy through an analysis of the classical theories from Thucydides and Plato to Machiavelli and the humanistic age of the Renaissance. Some of the questions explored will include those concerning justice, the state, citizenship, the best constitution, natural law, just war and colonization. Prerequisite: POL 100 or permission of instructor.

## POL 229 History of Political Philosophy - Modern 3-3-0

 A study of the history of political philosophy through an analysis of the modern theories from Thomas Hobbes to Karl Marx. Analysis will focus on social contract theory and the foundations of international relations theory, engaging critical concepts such as the state of nature, the natural law and natural right. A special topics section may include themes such as citizenship, human rights, war and security, slavery, genocide, liberty, and the nature of power.Prerequisite: POL 100 or permission of instructor.
POL 324 / PHI 324
The Philosophy and Politics of Karl Marx 3-3-0
A study of the philosophy and political theory of Karl Marx, with emphasis on Marx's theory of society, political economy and history. The course will consider a variety of Marx's texts, but focus on Capital, Volume 1.

## POL 325 / PHI 366

Topics in Critical Theory
3-3-0
This seminar course will explore the development of Critical Theory from its roots in dialectical philosophy (especially Hegel and Marx), to its appropriation of psychoanalysis (especially Freud), to its engagement with contemporary politics, society and art. Authors studied may include Walter Benjamin, Theodor Adorno, Max Horkheimer and Herbert Marcuse.
Prerequisite: POL 228 or POL 229, or one course in Philosophy.

POL 326 Contemporary Political Philosophy
3-3-0
This course will explore themes in contemporary political philosophy, including treatment of concepts such as friend-enemy, persecution-esotericism, biopolitics, bare life, state of exception, speed, empire, clash of civilizations, and the end of history. It draws on the works of Schmitt, Strauss, Foucault, Esposito, Agamben, Virlio, Negri and others.
POL 348 / PHI 348 Topics in Social and Political Philosophy
3-3-0
This course will typically consist of a detailed study of a great work of Western social and political philosophy. Students will be expected to present seminars and do research on the text itself, the social and political context in which it emerged and its implications for all serious inquiry into questions of society and politics.
POL 420 Modern Political Thought 3-3-0
A study of various approaches and forms expressed in 20th century politics and society: symbolism, myth, skepticism, the psychological, anarchism and structuralism. Works will be from Freud, Oakeshott, Marcuse, Sartori, MacIntyre and Hayek.
Honours students only or permission of instructor.

## III. Comparative Politics

POL 101 Introduction to Comparative Politics
3-3-0
A broad view of modern political institutions and processes. The differing forms and workings of governments - unitary, federal, presidential, parliamentary/ cabinet, and how they get things done. The main features of representative democracies; comparative party, voting and electoral systems; referendums and recall procedures. Various countries will serve to illustrate the varieties and styles of governing.
POL 172 Introduction to American Politics
3-3-0
An introduction to political behaviour and processes in American society. Topics will include the socioeconomic bases of U.S. politics, the Constitution, political ideology and culture, parties, interest groups, elections and voting behaviour.
POL 173 U.S. Government and Public Policy
An examination of U.S. political institutions and government outputs: the Presidency, Congress, the bureaucracy, federalism, the judicial system and public policy.
POL 230 The Politics of Sport
3-3-0
This course examines the various intersections of politics and sport at the domestic and international levels. Some topics include the role of the state in regulating sport, the use of sport in promoting national identity and other political agendas, the politics of international sporting events and the potential of 'sport and development'
Prerequisite: POL 101 or POL 140
POL 231 European Union: History, Institutions and Policies 3-3-0 A study of the foundation, operation, and policies of the European Union (EU). The first part of the course examines the history of the EU, the second part looks at its institutions, and the final part explores EU policy making processes and several different policy areas.
POL 232 Politics in Asia
3-3-0
This course will examine one or more Asian countries, such as China, India or Japan. It will focus on the character of domestic political institutions, processes, and culture in the context of a changing international environment.
POL 233 Politics of the Iberian Peninsula 3-3-0
An analysis of the structures and processes of governance in Spain and Portugal, including their relationships with each other, the European Union, and international organizations.
POL 234 Politics of Africa
3-3-0
Students are exposed to the approaches of political anthropology in the examination of ancient kingdoms, tribal societies, traditional cultures and the development of contemporary nations in Africa. Present political structures and processes are examined within the framework of Third World politics.
POL 235 American Political Economy
3-3-0
This course studies the links between politics and economics in the United States and attempts to place this relationship in both its historical and international contexts. It examines how the principal forces in American society interact to shape public policy, as well as looking at the impact of government in managing and regulating economic activity.
Prerequisite: POL 172 or POL 173 or permission of instructor.

POL 236 / REL 234 Introduction to Middle Eastern Politics 3-3-0
The course will focus on the forces that have shaped current Middle Eastern politics: particularly the growing influence of Islam and Islamic fundamentalism on political life and thought; the enduring legacies of westernization, colonialism and secular nationalism; and the Arab-Israeli conflict. Arriving at an understanding of Middle Eastern politics in this course will also entail study of the challenges modernizing states, parties and leaders are confronting today, and the profound impact of Western interests and policies on the region.

## POL $237 \quad$ Politics of Japan

3-3-0
An analysis of the structures and processes of Japanese governance, including an analysis of Japan's global relations.
POL $238 \quad$ Political Economy in Asia $\quad$ 3-3-0
This course studies the relationship between politics and economics in selected Asian countries and examines economic and political developments in their global context.
POL $239 \quad$ Politics of Russia \& Eastern Europe $\quad$ 3-3-0
A study of the formation, development and the breakup of the USSR, as well as an examination of politics, society, economy and public policies of Russia and Ukraine.
POL 246 The Politics of Gender and Sexuality
3-3-0
A theoretical and empirical study of the relationships among gender, sexuality, and politics in Western democracies, with a special emphasis on Canada. Drawing upon feminist, queer, and intersectional theories, the course explores such issues as reproductive rights, LGBTQ politics, trans* rights movements, sex work, political masculinity, and the representation of women in politics.
POL 330 Topics in U.S. Public Policy
3-3-0
A study of some of the most controversial issues in contemporary American politics. Topics may include abortion, euthanasia, gun control, capital punishment, pornography, hate speech and censorship, drug legalization, affirmative action and welfare reform.
Prerequisite: POL 172 or POL 173, or permission of Instructor
POL 331 Canada-EU Relations
3-3-0
This course examines the political relationship between Canada and the European Union (EU) and its forerunners. Particular attention will be devoted to exploring theories and practices of transatlantic policy learning between Canada and the EU Prerequisite: POL 231
POL 333 Internationalization of European Public Policies 3-3-0
An advanced study of the European integration process from a political science / political economy point of view. The relationships between Europeanization, internationalization and globalization of public policies in Europe will be examined.
Prerequisite: POL 231 or permission of instructor

## POL 334 Public Policy Analysis <br> 3-3-0

A critical analysis of the formation, content, and impact of public policy within selected postindustrial societies.
Prerequisite: POL 100 or permission of instructor.
POL $335 \quad$ Politics of Latin America and the Caribbean 3-3-0 Latin American and Caribbean politics will be studied through general theories of development. Examined are such notions as growth, modernity, industrialization, underdevelopment, cultural history as they relate to national and international dependency and interdependency.
POL 347 Scandinavian Politics
3-3-0
A study of political structures and processes in the Nordic countries of Denmark, Finland, Iceland, Norway and Sweden. While largely based on the comparative approach to the study of policies, the program will also highlight special features in each Nordic country. This course will also draw on comparisons between the Nordic countries and Canada.

## POL 431 The American Welfare State <br> 3-3-0

A study of the origins, development and contemporary character of the social policy network in the United States. The structure of the welfare state, its current problems and attempts at reform will be examined in a theoretical and comparative context.
Honours students only or permission of instructor.
Prerequisite: POL 172

POL 434 Theories of Public Policy
3-3-0
An examination of the principal theoretical approaches to the study of public policy. The course will cover such things as pluralism and elite theory, Marxism and neo-marxism, statist and neo-institutional approaches, power resource theory, rational choice, ideas and social learning, advocacy coalition frameworks and punctuated equilibria.
Honours students only or permission of Instructor.
POL 436 Comparative Politics: A World of Regions 3-3-0
Regions and regional integration have become critical to contemporary world politics. This course offers a comparative analysis of regional integration efforts and their consequences in different parts of the world.
Honours students only or permission of instructor
POL 438 Honours Seminar in Political Economy
3-3-0
An analysis of selected classical and contemporary literature inquiring into the nature and causes of the wealth of nations.
Honours students only or permission of instructor

## IV. International Relations

POL 140 Introduction to International Relations
Examination of international political issues, institutions and processes. How do states behave toward each other in different types of international systems, and why do they behave in certain ways? Some discussion of international law.

## POL 141 Introduction to Diplomacy

3-3-0
This course seeks to present students with an overview of the essential character and evolution of diplomacy, understood as the primary and peaceful means by which states and other actors try to cooperate and solve problems on the world scene.
POL 240 International Political Economy 3-3-0
A study of the political relationships to economic activities in the international arena. The theories, actors and structures in the world political economy will be examined.
Prerequisite: POL 140, or permission of instructor
POL 241 International Affairs
3-3-0
This course will offer an introduction to key political issues in developing countries. It will cover the main theoretical approaches to the study of developing areas. It will focus on the trajectory of developing states from precolonial times until today. The main political, social and economic forces at play in the building, shaping and consolidating of states and regimes will be addressed. Selected themes will be used to highlight the role of the military, revolutions, liberalization, democratization, environmental and gender issues.
Prerequisite: POL 140, or permission of instructor
POL 242 International Organizations:

> Principles, Institutions and Politics

3-3-0
A study of the origins, structures and processes of institutions designed to resolve world conflict and secure international cooperation. The United Nations and Regional Organizations will be examined.
Prerequisite: POL 140, or the permission of instructor
POL 245 American Foreign Policy
3-3-0
The development of American foreign relations and national security policy from the nineteenth century to the present day. Topics include: interventionism and isolationism, the Cold War and the nuclear arms race, the Cuban missile crisis, Vietnam, US-Soviet relations in the Reagan era, the Gulf War, the response to international terrorism and the invasions of Afghanistan and Iraq.
POL 249 Canadian Foreign Policy
3-3-0
An analysis of the development of Canadian foreign policy and defense policy. Canada's relations with the Superpowers, the European Union and the Third World will be studied. Topics will include Canada's role in the U.N. and N.A.T.O., Canada's antinuclear diplomacy, and Canada's domestic interests in relation to energy, the Law of the Sea and aerospace law.
Prerequisite: POL 140, or permission of instructor
POL $277 \quad$ European Diplomacy Since 1914
3-3-0
This course examines the international relations and foreign policies of the major European states from the beginning of World War I to the Cold War and the emergence of the New Europe.
Antirequisite: HIS 366

POL 338 International Law and Human Rights
3-3-0
An analysis of the theory and practice of fundamental human rights in contemporary societies. A comparative study of the development and problems of civil liberties from a legal perspective.
Prerequisites: POL 140 or permission of instructor.
POL $340 \quad$ Strategic Issues: Questions of War and Peace $\quad$ 3-3-0
A study of the general character of war and conflict in the modern world since World War II. Discussions of the basic trends which influence conflicts, be they superpower rivalry or peculiar local conditions. Inquiry into the exploitation or the containment of conflicts by the major powers. Analysis of the most important crises and actual conflicts in such geopolitical areas as the Middle East, Central America, Africa or Asia. Discussion of the changing patterns of warfare, conventional and nuclear strategies, détente and changes in the maintenance of peace in the future.
Prerequisite: POL 140, or permission of instructor
POL 343 Canadian-American Relations
3-3-0
This course seeks to describe the main aspects of the relations between Canada and the United States. For that purpose, we will concentrate on the main determinants of the bilateral relationship, analyzed around five major themes: the political relations, the economic and trade relations, the identity/cultural relations, the defence and security relations, and the environmental relations.
Prerequisite: POL 140, or permission of instructor
POL 344 The Politics of International Trade and Investment 3-3-0 This course explores the key principles and practices underlying International trade and investment negotiations, as well as the main provisions and institutions regulating these fields. Bothe the world trading regime and preferential agreements are considered.

## Prerequisite: POL 140 or permission of instructor

POL 345 Introduction to Public International Law
3-3-0
An introduction to the nature and development of international law which includes topics such as the law of treaties, the law of the sea, air and space law, and international environmental law as well as jurisprudence related to international dispute settlement.
Prerequisite: POL 140 or permission of instructor
POL $346 \quad$ Politics of Global Finance
3-3-0
A thematic exploration of the issues and politics of the global financial system. This course explores areas of money and global capital movements, financial instruments and bodies. It examines the functioning and ramifications of international finance, including the politics of international debt, global monetary relations and the transnational governance initiatives of global financial markets and actors.
POL 441 Theories of International Relations 3-3-0
A study of the various theories used in the investigation of international political behaviour: systems, models, empirical research will be examined towards a more precise understanding of evolving structures and processes in the international arena.
Honours students only or permission of instructor
Prerequisite: POL 140, or permission of instructor
POL 442 Issues in Global Governance
This course examines various approaches to understanding global governance and transnational public policy and links them to current and controversial issues in the global arena.
Honours students only or permission of instructor
Prerequisite: POL 140, or permission of instructor
POL 443 Honours Seminar on Peacekeeping
3-3-0
This seminar will examine the political issues related to conflict prevention, humanitarian aid, peacekeeping and peacemaking, demobilization, disarmament and reintegration of combatants, negotiation and mediation, peacebuilding, postconflict reconciliation and reconstruction, refugees and internally displaced issues. It will present the role of international and regional actors (notably NGOs, IOs, regional organizations, civil society, military, etc.). It will address the strategic, political, economic and social aspects of conflict intervention.
Honours students only or permission of Instructor

## V. Empirical Theory and Methods

POL 262 Methods and Approaches to Political Science 3-3-0
An introduction to research methods in Political Science. This course covers the basic concepts and practices for the scientific approach to studying politics from the development of research projects through the different techniques for conducting empirical research.
POL 361
Techniques of Empirical Research
3-3-0
An introduction to empirical political research: the formulation of research problems, the selection of samples, interviewing, questionnaire construction, analysis and interpretation of data.
Anti-requisite: POL 261
POL 362 Comparative Political Behaviour 3-3-0
The study of selected issues in comparative politics using quantitative techniques of data analysis. Topics may include such things as political participation, social movements, ideology and political culture, the welfare state, national identity, political parties and voting behaviour.

## VI: Honours Thesis, Independent Studies, Practicum and Internships

POL 300 International Studies Internship 3-3-0
Student must apply, in writing, to the Department to take a Department-sponsored or student arranged internship abroad for credit. A faculty member will be appointed to oversee the internship and to supervise the written component.
POL 350 Independent Study
3-3-0
Individual research and reading under the guidance of an advisor and the Department, of special themes in political studies
Prerequisite: Permission of the Department and instructor
POL $352 \quad$ United Nations Practicum I
3-3-0
This course examines the study of the processes and structures of the UN System and will introduce students to rules and diplomatic practices of these UN bodies through seminars, labs and simulations. This course is to be taken in the same calendar year as POL 354, which is offered in the Winter term.
Prerequisites: POL 140 and one of POL 241 or POL242 and the permission of the instructor.
POL 353 The Nicholas Bachand Canadian Civil Society Internship

3-3-0
The Nicholas Bachand Canadian Civil Society Internship is intended to provide a practical work-experience related to the Political Studies programs. The internship is intended to enable students to contribute to the well-being of society by participating in voluntary and non-profit non-governmental organizations (NGOs).
POL 354 United Nations Practicum 2 3-3-0
This course examines the study of the processes and structures of the UN System through seminars and labs, culminating in an annual Model United Nations simulated conference. Students will also study the political processes and issues of the country to be represented that year. Students are expected to enrol in both POL 352 and POL 354 in the same calendar year.
Prerequisite: POL 352 and the permission of the instructor
POL $359 \quad$ Special Topics in Politics and International Studies $\quad$ 3-3-0
A course offered by regular and visiting faculty on current topics related to Politics and International Studies. Topics covered will be dependent on the research interests and expertise of the faculty member instructing, therefore content of the course varies year by year. The course will be offered on an occasional basis.
POL 450 Independent Study
Individual research and reading under the guidance of an advisor and the Department, of special themes in political studies.
Prerequisite: Permission of the Department and instructor
POL 550 Honours Thesis
6-3-0
Individual research and reading under the guidance of an advisor and the Department, on advanced themes in Political Studies.
Prerequisite: Permission of the Department and instructor.

## Psychology

## Faculty

## Jonathan Carriere,

B.A. (Winnipeg), M.A., Ph.D. (Waterloo);

Associate Professor
Chair of the Department
Claude Charpentier,
B.A. (Bishop's), Ph.D. (Edinburgh);

Associate Professor
Andrea Drumheller,
B.A. (Rutgers), Ph.D. (Syracuse);

Full Professor
Suzanne Hood,
B.Sc. (Toronto), M.A., Ph.D. (Concordia); Assistant Professor

## Heather Lawford,

 B.A. (Trent), M.A. (Wilfrid Laurier), Ph.D. (Concordia); Associate ProfessorStine Linden-Andersen,
B.A., M.A., Ph.D. (Concordia);

Associate Professor
Catherine Malboeuf-Hurtubise,
B.A. (Concordia); Ph.D. (Université de Montreal); Associate Professor

Adrianna Mendrek,
B.A. (Concordia), M.A., Ph.D. (UBC); Full Professor

Courtney Plante,
B.Sc. (Alberta), M.A., Ph.D.; (Waterloo);

Assistant Professor
Dale Stout,
B.Sc., M.Sc. (Calgary), Ph.D. (Edinburgh); Full Professor

## Program Overview

Psychology aims at giving students an understanding of the human mind and behavior. We offer Major and Honours programs that emphasize Psychology as an objective science, cover the various subfields of Psychology and allow the students who desire to do so to gain specialization into specific areas of interest. We also offer a Minor in Psychology, a Minor in Mindfulness and Contemplative Studies, a one-year Certificate in Human Psychology, as well as Graduate Certificate in Knowledge Mobilization, 15-credit program including practicum.

Within this general framework, we offer an array of courses that apply the psychological approach to a wide range of topics. We emphasize quality of teaching and a close relationship between professors and students. A fundamental concern of the Department is to provide an education that not only prepares students for further training in Psychology and related fields at the graduate level, but also enables them to be active, contributing members to their communities.

## Mission Statement

The Psychology Department dedicates itself to understanding and supporting our shared journey towards a well-lived life. Our approach, therefore, takes seriously the literary voice of others cast across time. We explore the pathways into human condition by cultivating openness to scientific methodology, and to clinical, humanistic, as well as neuropsychological perspectives. Encouraging ways of breaking out of the classroom in the hope of making the lives of others better is as much a part of our mission as conducting a study, reading Plato, or deciphering an fMRI report. Our goal is to nurture within our students an intimacy with the human condition that changes them while, at the same time, providing them with the means of making their communities better.

## Prerequisites

Note that all prerequisites can be completed at Bishop's. All our programs include two Introduction to Psychology prerequisites (PSY 101 and PSY 102). Our Majors/Honours programs also include an Introductory Biology (BIO 196/BIL 196 or BIO 194) prerequisite. These courses must be completed within the first three semesters of study. These prerequisites will be waived for students who have completed CEGEP courses in Psychology (Introductory Psychology and two other Psychology courses) and Human Biology. Our psychology - neuroscience program includes additional science prerequisites; these will be waived for CEGEP science students.

## Psychology Programs

Please note that the complete list of courses to be taken within each program is outlined in the table on the next page.

| B.A. - Psychology (54 credits) |  |
| :--- | :--- |
| Prerequisites |  |
| PSY 101 | Intro Psy. I |
| PSY 102 | Intro Psy. II |
| BIO 194 | Intro Biology for the Social |
|  | and Human Sciences |

Core courses (8)
PSY 206 Personality
PSY 213 Research Methods
PMA 260 Psychological Statistics
PBI 288 Brain and Behavior
PSY 301 Abnormal OR
PSY 311 Psychopathology
PSY 342 History of Psy.
PMA 353 Psychometrics
PMA 360 Advanced Statistics
Block A - Physiological (take at least 1)
PBI 379 Neuropsychology
PBI 380 Psychopharmacology
PBI 388 Brain Behavior II
Block B - Cognitive \& Motivational (take at least 3)
PSY 203 Cognition Motiv. Sports
PBI 217 Motivation Emotion
PSY 302 Perception
PCS 305 Cognition
PSY 370 Learning Memory
PSY 386 Psy. Language
Block C - Developmental
(take at least 2)
PSY 235 Child Development
PSY 266 Adult Aging
PSY 290 Adolescence
PSY 333 Psy. Exceptional Child.
PSY 348 Social Development *
Block D - Social
(take at least 2)
PSY 214 Community Psy.
PSY 219 Psy. Gender
PSY 245 Social Psy. I
PSY 246 Social Psy. II
PSY 293 Multicultural Psy.
PSY 348 Social Development *
Block E - Free options
(take at least 2 other Psychology courses)
Honours - All programs
(18 additional credits)
PSY 313 Adv. Research Methods
PSY 443 History Psy. Seminar
PMA 460 Multivariate Stats
PSY 498 Honours Seminar
PSY 499 Honours Thesis (6 creds.)
Honours - Applied program only
(6 additional credits)
PSY 441 Adv. Applied Seminar
PSY 442 Practicum

* the same course can contribute to only one Block


## B.A. Psychology (Applied) <br> 19 courses or 57 credits

## Prerequisites

PSY 101 Intro Psy. I
PSY 102 Intro Psy. II
BIO 194 Intro Biology for the Social and Human Sciences

## Core courses (8)

PSY 206 Personality
PSY 213 Research Methods
PMA 260 Psychological Statistics
PBI 288 Brain and Behavior
PSY 301 Abnormal OR
PSY 311 Psychopathology
PSY 342 History of Psy.
PMA 353 Psychometrics
PMA 360 Advanced Statistics
Block A - Physiological (take at least 1)
PBI 379 Neuropsychology
PBI 380 Psychopharmacology
PBI 388 Brain Behavior II
Block B - Cognitive \& Motivational (take at least 2)
PSY 203 Cognition Motiv. Sports
PBI 217 Motivation Emotion
PSY 302 Perception
PCS 305 Cognition
PSY 370 Learning Memory
PSY 386 Psy. Language
Block C - Developmental
(take at least 2)
PSY 235 Child Development
PSY 266 Adult Aging
PSY 290 Adolescence
PSY 333 Psy. Exceptional Child.
PSY 348 Social Development *
Block D - Social (take at least 2)
PSY 214 Community Psy. *
PSY 219 Psy. Gender
PSY 245 Social Psy. I
PSY 246 Social Psy. II
PSY 293 Multicultural Psy.
PSY 348 Social Development *
Block E - Intervention (take at least 2)
PSY 214 Community Psy. *
PSY 330 Ethics
PSY 336 Interviewing
PSY 337 Crisis intervention
PSY 406 Current Topics in Clinical Treatment Models
Block F - Health \& Wellbeing
(take at least 2)
PSY 204 Social Psychology Sports
PSY 222 Group Dynamics
PBI 275 Health Psy. I
PBI 276 Health Psy. II

PSY 277 Physical and Mental Health
PSY 298 Zen and the Brain
PSY 306 Advanced Theories of Personality
PBI 327 Psy. of Nutrition
PBI 399 Psychology of Drug Addiction
PSY 477 Personality, Health \& Well-Being

* the same course can contribute to only one Block


## B.Sc. Psychology (Neuroscience) <br> 18 courses or 54 credits

## Prerequisites - Grade 12 and nonscience CEGEP students

PSY 101 Intro Psy. I
PSY 102 Intro Psy. II
BIO 196/ BIL 196 Intro Bio.
CHM 191 / CHL 191 Gen. Chem I
CHM 192/ CHL 192 Gen. Chem II
MAT 198 Calculus I
MAT 199 Calculus II
PHY 193 / PHL 193 Physics I
PHY 194/ PHL 194 Physics II
Core courses - Psychology (8)
PSY 206 Personality
PSY 213 Research Methods
PMA 260 Psychological Statistics
PBI 288 Brain and Behavior
PSY 301 Abnormal OR
PSY 311 Psychopathology
PSY 342 History of Psy.
PMA 353 Psychometrics
PMA 360 Advanced Statistics
Core courses - Neuroscience (5)
BIO 201 Cellular Molecular Bio.
BIO 208 / BIL 208 Genetics
PBI 379 Neuropsychology
PBI 380 Psychopharmacology
PBI 388 Brain Behavior II
Block A - Cognitive science options
(take at least 2)
PSY 302 Perception
PCS 305 Cognition
PSY 370 Learning Memory
PSY 386 Psy. Language
Block B - Natural Science options
(take at least 3)
CHM 111 / CHL 111 Organic Chem.
BIO 205 / BIL 205 Diversity of Life
BIO 336 Animal Physiol. I
BIO 337 / BIL 337 Animal Physiol. II
BCH 313 / BCL 313 Metabolism
BCH 382 Biochem. \& Toxicology
BIO 359 Human Genetics
BCH 383 Molecular Biology

## Honours and Major in Psychology (54 and 72 credits) HONPSY/MAJPSY

This classic program is our most flexible and most popular. The Major includes 24 credits of Core Courses and 30 credits of Psychology options for a total of 54 credits. The Honours adds an additional 18 credits of Core Courses for a total of 72 credits.

## Special Requirements for Honours

To qualify for an Honours program, students must have a cumulative average of at least $80 \%$ in program courses. Students must also achieve a combined average of at least $75 \%$ in PSY 313 (Advanced Research Methods) and PMA 360 (Advanced Psychological Statistics). Eligible students will officially transfer into Honours after the acceptance of their Thesis proposal in the Fall term of their final year.

## Honours or Major in Psychology Applied Concentration

 (57 and 81 credits)HONPSA/MAJPSA
This program emphasizes the applied/clinical side of Psychology. The Major includes 24 credits of Core Courses and 33 credits of courses specific to the Applied concentration for a total of 57 credits. The Honours adds an additional 18 credits of Core Courses and an additional 6 credits of Honours courses specific to the Applied concentration for a total of 81 credits.

## Honours or Major in Psychology Neuroscience Concentration

(B.Sc.; 54 or 72 credits)

HONPNS/MAJPNS
This program focuses on the physiological aspects of Psychology and the brain-behavior relationship. To complete the neuroscience program within three years, Quebec students should enter with a collegial diploma in science (D.E.C.), that includes Mathematics 201-NYA-05, 201-NYB-05, Physics 203-NYA-05, 203-NYB-05, Chemistry 202-NYA-05, 202-NYB-05, and Biology 101-NYA05. Students entering from other CEGEP programs or from Grade 12 will be required to complete science prerequisites prior to undertaking the neuroscience major and will usually complete the degree in four years. The major includes 39 credits of core courses and 15 credits of Psychology and Science options for a total of 54 credits. The Honours adds an additional 18 credits for a total of 72 credits.

## Minor in Psychology (24 credits)

MINPSY
The Minor involves completing any 8 courses in Psychology. This flexible and popular program has been joined with Majors/ Honours in almost every discipline offered at Bishop's. The most popular and most useful combinations include, among others: Biology, Political Studies, Sociology, Business, Philosophy, English and Education.

## Minor in Mindfulness and Contemplative Studies

 (24 credits)MINPMC
This program provides students with a platform to investigate the psychological, philosophical, and scientific bases of human contemplative experience. It will prepare students who are thinking about clinical work using mindfulness-based interventions; those who are planning research in the area of contemplative neuroscience; as well as those who want to deepen the understanding of themselves and the world they live in. This is an interdisciplinary Minor, involving courses in Psychology and Humanities, to facilitate exploration of human consciousness, nature of self, and life meaning. It requires 8 courses ( 24 credits), two of which are mandatory (PSY 298 \& PSY 420). The remaining six courses can be chosen from a pre-selected list of courses from a wide range of departments listed below:

## A. Psychology

PSY 298 - Zen \& the Brain (mandatory)
PSY 303 - Positive Psychology
PSY 408 - Psychology of Consciousness
PSY 410 - Psychology of Death \& Dying
PSY 420 - Contemplative Practicum (mandatory)

## B. Religion

REL 101 - Eastern Religions
REL 124 - Hinduism: The Many Faces of the Divine
REL 125 - Buddhism: The Middle Way
REL 148 - Psychology of Religion
REL 236 - Death \& Dying in the Ancient World

## C. Liberal Arts

LIB 216 - The Divine \& Ultimate Concern
LIB 303 - On the Road Again: Pilgrimage in Theory and Practice

## D. Philosophy

PHI 201 - Medieval Philosophy
PHI 263 - Hegel
PHI 271 - Socrates and Plato
PHI 272 - Aristotle
PHI 354 - The Philosophy of Contemplation
PHI 374 - Spinoza
E. Fi ne Arts

FIS 169 - Drawing I
FIS 170 - Sculpture I
FIS 181 - Painting I
FIN 222 - Art Therapy

## F. Music

MUS 108-Choral \& Sacred Music
MUS 110 - The Art of Listening I
MUS 111 - The Art of Listening II

## Certificate in Human Psychology (30 credits)

 CONPSHThis one-year program is designed for adult students. It has particular relevance for teachers, health or social workers, and managers. It involves taking 10 psychology courses that relate to human behavior.

## List of Courses

The following list includes courses which are normally offered by the department each year, as well as courses which are offered on a rotating basis. Those courses which are offered only irregularly are listed separately at the end of this section.
PSY 101 Introduction to Psychology I : Basic Processes 3-3-0 An introduction to the functioning and development of the basic cognitive processes: perception, learning, memory, thinking, intelligence and consciousness. Approaches and methods will also be discussed.
PSY 102 Introduction to Psychology II: Human Interactions 3-3-0 An introduction to motivation, emotion, and personality as factors in human functioning. Approaches, methodology, social psychology and abnormal psychology are also discussed.
PSY 203

## Cognition and Motivation in Sport: Performance Enhancement

A systematic review of how individual factors influence and optimize sports performance. Major topics include introduction and research methods, personality, mood, motivation, learning and cognition. Both theory and application will be emphasized.
Students who have taken PSY 208 (Sports Psychology) cannot take this course for credit.
Prerequisite: PSY 101 or PSY 102
Corequisite: PSY 101 or PSY 102
PSY 204 The Social Psychology of Sport and Exercise 3-3-0
A systematic review of the social aspects and effects of sport and exercise. Major topics include introduction and research methods, audience effects, leadership, team cohesion, aggression in athletes and fans, bias in judging, and benefits and costs of sports and exercise participation.
Prerequisite: PSY 101 or PSY 102
Corequisite: PSY 101 or PSY 102
PSY 206 Personality 3-3-0
An examination of theories of personality based on the clinical approach, as illustrated by psychoanalytic and humanistic theories; and based on the psychometric and experimental approaches, as illustrated by trait and learning theories.
Students who have taken PSY 107 (Personality)or PSY 207 (Personality II) may not take this course for credits
Corequisite: PSY 101 or PSY 102
PSY 210 Psychology of the Couple 3-3-0
This course is a survey of research on the psychology of the couple. Topics treated include: psychology of the female and male; factors in partner choice; bonding and love; commitment and contract; stages of coupling; divorce and recommitment. Psychodynamic, behavioural and systemic approaches to couple therapy will be examined.
Prerequisite: PSY 101 and PSY 102
PSY 213 Research Methods 3-2-2
Scientific bases of psychological theory; experimental and non-experimental research methods; data analysis; report writing; critical analysis of published articles. Class projects are conducted, statistically analyzed, and written up.
Students who have taken PSY 113 (Research Methods I) cannot take this course for credit
Prerequisite: PMA 260
Corequisite: PMA 360

## PSY 214 Community Psychology

3-3-0
Community Psychology is the study and application of psychological solutions to community-based problems. Through an analysis of the reciprocal relationship between person and environment (clubs, churches, schools, neighborhood, larger culture) Community Psychology emphasizes action and interventions whose aim is to prevent problems in living, promote social-psychological competencies and
improve people's well-being. This course introduces students to the ways in which research and science intersect with the practical aspects of working successfully with people in their communities. Topics include the background and history of the field, community research methods, empowerment of disenfranchised groups, social support, cultural diversity, prevention, program evaluation and development of community intervention strategies.
Prerequisite: PSY 101 AND PSY 102
PBI 217 Motivation and Emotion
3-3-0
An exploration of the underlying causes of human behavior. Topics include hunger and eating, sex and love, aggression, drug use/abuse and higher-level behaviors (e.g. creativity, attaining peak performance, goal setting, self-regulation). The role of emotions in guiding behavior will also be addressed.
Prerequisite: PSY 101
PSY 219 Psychology of Gender 3-3-0
In this course, gender diversity, gender stereotypes and biases are exposed. The rape myths are debunked and sexual orientation is demystified. Gender comparisons in cognitive abilities and in social and personality characteristics are discussed. Other topics of interest include love relationships, sexuality, sexual harassment and assault, gender-based violence, as well as prevalence of specific mental health problems across gender. This course is a must for those who enjoy class discussions.
Students who have taken PSY 109 (Psychology of Women) cannot take this course for credit
Prerequisite: PSY 101 or PSY 102
Corequisite: PSY 101 or PSY 102
PSY 222 Group Dynamics
3-3-0
This course introduces students to the principles and practices of group behavior, emphasizing dynamic processes (norms, roles, relations, development, social influence) which form a basis for group therapy as a branch of psychotherapy. Background, founders and key influences, contexts of use, techniques, methodology and current trends in group therapy will be discussed.
Prerequisite: PSY 101 and PSY 102
PSY 235 Child Development: Infancy to Middle Childhood 3-3-0
The foundations of child development. Topics include basic genetics, development of learning and cognition, socioemotional development, moral development and the classic theories of developmental psychology.
Students who have taken PSY 236 or PSY 237 cannot take this course.
Prerequisite: PSY 101 or PSY 102
PBI 241 Evolutionary Psychology
3-3-0
Evolutionary Psychology is the study of behavior founded within the framework of Darwin's Theory of Evolution through Natural Selection. The purpose of this course is to introduce the students to the principles of Evolutionary Psychology and to investigate the adaptive origins of many common behaviors such as cooperation, mating strategies, parenting, aggression and dominance.
Students who have taken PBI 141 (Evolutionary Psychology) cannot take this course for credit
Prerequisite: PSY 101
PSY 245 Social Psychology I
3-3-0
Methodology of social psychology; prejudice; sexism; social perception; attitude formation and attitude change; legal and clinical applications.
Prerequisite: PSY 101 or PSY 102
Corequisite: PSY 101 or PSY 102
PSY 246 Social Psychology II 3-3-0
Social motives, such as aggression, attraction and altruism; group processes and social interaction; conformity and leadership; social institutions; environmental psychology.
Prerequisite: PSY 101 or PSY 102
Corequisite: PSY 101 or PSY 102
PMA $260 \quad$ Psychological Statistics 3-2-1
Basic descriptive and inferential statistics developed from a conceptual perspective. Topics include measures of central tendency and variability, normal distribution, probability, confidence intervals, sampling distributions, hypothesis testing, power analysis, z-tests, t-tests and chi-square.
Students who have taken PMA160 (Psychological Statistics I) cannot take this course for credit
Students who have taken PHY 101 may not take this course for credit

PSY 266 Adult Development and Aging
3-3-0
An examination of psychological development during adulthood and old age. Research findings on age related changes in memory, health issues, adjustment, coping styles, and stress will be covered. Case studies will be used to explore various applications in society.
Prerequisite: PSY 101 or PSY 102
Corequisite: PSY 101 or PSY 102

## PBI 275 Health Psychology I

3-3-0
Introduction to health psychology and the biopsychosocial model of health. Topics include: methods of health research, obtaining care and following health advice, stress, pain, behavioural factors in health, alternative medicine, mental illness, global health issues.
Prerequisite: PSY 101. It is highly recommended that students also take PSY 102

## PBI 276 Health Psychology II

3-3-0
Selected topics in health psychology: cardiovascular disease, cancer, chronic and terminal illness, preventing injuries, smoking tobacco, using alcohol and other drugs, diet and weight control, exercising, future projects.
Prerequisite: PSY 101. It is highly recommended that students also take PSY 102

## PSY $277 \quad$ Physical and Mental Health

 3-3-0 This course will examine the mutual interaction between physical and mental health, using the biopsychosocial model as a conceptual framework. For example, depression as a factor in cardiovascular disease (and vice-versa), or the effect of diet upon behaviour disorders, will be explored with detailed attention to genetic, developmental, personality, lifestyle and social factors. Therapeutic interventions will also be covered, for example to compare the success of behavioural versus medical approaches in the treatment of depression. The course will include lectures and seminar presentations.Prerequisite: PSY 101. It is highly recommended that students also take PSY 102

## PBI 288 Brain and Behavior I

3-3-0
An introduction to physiological psychology and to the complex relationship between brain activity and human behavior. Topics include structure and function of the brain, the neuron, neurotransmitters, neuroscience research methods and the physiology of the sensory and motor systems.
Students who have taken PBI 128 (Physiological Bases of Behavior I) may not take this course for credit
Prerequisite: PSY 101

## PSY 290

Adolescence
3-3-0
An examination of developmental issues in the adolescent period and related clinical phenomena: environmental influences (family, school, peers) and intra personal concerns (identity, sexuality, moral development); clinical conditions such as depression (suicide), eating disorders, and delinquency.
Prerequisite: PSY 101 and PSY 102

## PSY 292 Psychology of Music and the Fine Arts 3-3-0

This is an introductory course to the use of the arts, broadly defined, in clinical settings. Specifically, this course will explore the use of music and fine arts as clinical tools to improve wellbeing with adults and children, in a variety of settings (schools, hospitals, rehabilitation facilities, retirement homes, etc.). This introduction to the psychology of music and fine arts will explore key areas such as music and language, music/fine arts and emotion, as well as the applied psychology of music and fine arts in a range of social, health, educational and therapeutic contexts. The big questions in the field will be considered; such as the role of music and fine arts in our evolutionary history, whether some of us are 'born musical/artistic' and others are not, whether music and arts can make us smarter, or can encourage us to behave aggressively.
Prerequisite: PSY 101 and PSY 102
PSY 293 Multicultural Psychology
3-3-0
The place of culture in the evolution of psychology. Cultural similarities and differences in behaviour, thoughts, emotions, attitudes, motivations, mental and physical health, etc. Understanding that psychological principles can range from being universal to culture-specific.
Prerequisite: PSY 101 and PSY 102
PSY 298 Zen and the Brain
3-3-0
The interest in Eastern philosophy and religion in the West is not a new phenomenon, but careful scientific examination of the techniques linked to some Eastern traditions, such as meditation and mindfulness, as well as their increasing use in psychotherapy, is relatively new. In this course we will introduce the basis of Buddhist and Hindu thought and practice, and review critically the available literature on the neurophysiological and neuropsychological effects of different forms of meditation.
Pre or Corequisites: PSY 101, PSY 102 or being admitted to Mindfulness \& Contemplative Studies Minor

PSY 301 Abnormal Psychology
3-3-0
An introduction to the experimental approaches, diagnoses, classifications, viewpoints, and the therapeutic techniques used in abnormal psychology. The interaction between genetic predisposition and environmental stressors in the etiology of abnormal behavior will be emphasized. Various anxiety disorders (e.g., specific phobias), trauma and stress-related disorders (e.g., PTSD), obsessivecompulsive and related disorders (e.g., OCD), and psychotic disorders (e.g., schizophrenia), will be discussed.
Prerequisites: PSY 101, PSY 102 and PSY 206
Students who have taken PSY 341 (Abnormal Psychology) may not take this course for credit.
PSY 302
Perception
3-3-0
Based on a rich array of perceptual demonstrations, this course provides a comprehensive overview of how our senses, mostly vision and audition, allow us to know and understand the world. Topics include physiology of the sensory systems, perceiving objects and faces, color, depth and motion perception, visual illusions, music perception, perceptual illusions and perceptual impairments.
Prerequisite: PSY 101 and PBI 288
PSY 303 Positive Psychology 3-3-0
Traditionally, when we think of psychology, and especially of clinical psychology, we think of mental illness and psychopathology. However, researchers and clinicians alike have recently been also interested in studying variables that make individuals flourish and thrive. What makes us happy? What roles do hope and optimism play in our overall well-being? Can keeping a gratitude journal have an impact on our outlook on life? All of these variables fall within the realm of positive psychology, which can be described as the study of factors that make people lead fulfilling lives. This class will present theory behind variables that are comprised within positive psychology, while providing a strong clinical and experiential component.
Prerequisite: PSY 101 and PSY 102
PCS 305
Cognition
3-3-0
Cognitive processes: language, memory, concepts, heuristics, the nature of thought, reasoning, problem solving, creativity, and anomalous beliefs.
Students who have taken PCS 205 (Cognitive Psychology) cannot take this course for credit
Prerequisites: PSY 101 and PSY 102 and PBI 288
PSY 306 Advanced Theories of Personality
3-3-0
An advanced course focused on deepening knowledge of core aspects of personality theories. Topics will focus on the clinical aspects and the social implications stemming from personality theories. In addition the role of statistical methodology (e.g. factor analysis) will be explored in terms of how personality dimensions are established.
Prerequisites: PSY 101 and PSY 102, PSY 206, PSY 213
PCS 309 Introduction to Python for Researchers 3-3-0
This course will teach the fundamentals of programming using the Python language in the context of conducting neuroscience research, although the basic concepts apply to research outside of neuroscience as well. The course will first cover how to break complex tasks into discrete logical steps, then address how to convert large raw data sets into smaller summary data sets ready for traditional statistical analysis. Students will learn to use a primarily point-and click programming environment designed around Python to quickly design basic experiments for research in psychology.
Prerequisites: PSY 213, PMA 260, PBI 288
PSY $311 \quad$ Psychopathology
3-3-0
This course is a continuation of PSY301. Topics covered include: mood, personality, dissociative, somatic and eating disorders, as well as sexual dysfunctions and disorders of childhood and adolescence.
Students who have taken PSY 341F (Abnormal Psychology) may not take this course for credit
Prerequisites: PSY 101, PSY 102 and PSY 206
PSY 313 Advanced Research Methods
3-2-2
Research methodology in the study of human behaviour. Formulation of the research proposal; presentation and discussion of results in APA format reports; factorial and correlational designs; computers in data analysis. Class and individual projects are conducted.
Students who have taken PSY 215 (Research Methods II) cannot take this course for credit
Prerequisites: PSY 213 and PMA 360

PSY 325 Independent Studies I
3-0-0
Theoretical or experimental work conducted under the direct supervision of two faculty members. The project and grading scheme needs to be approved beforehand by the Psychology Department.
Prerequisite: PSY 101 and PSY 102
PSY 326 Independent Studies II
3-0-0
Theoretical or experimental work conducted under the direct supervision of two faculty members. The project and grading scheme needs to be approved beforehand by the Psychology Department.
Prerequisite: PSY 101 and PSY 102
PBI 327 Psychology of Nutrition
3-3-0
This course explores the many physiological, psychological and sociocultural factors that influence children and adults' food choice and preferences. The activity of eating is understood in its relation to physical and psychological health, body size and dissatisfaction, dieting, obesity, anorexia nervosa and bulimia nervosa.
Students who have taken PBI 227 (Psychology of Nutrition) cannot take this course for credit
Prerequisite: PSY 101. It is highly recommended that students also take PSY 102
PSY 333 Psychology of Exceptional Development 3-3-0
A survey of various kinds of exceptionality in children, including intellectual disabilities, giftedness, speech and language differences, learning disabilities, hearing and vision impairments, behaviour disorders, health problems, and developmental disabilities.
Students who have taken PSY 233 (Psy. of Exceptional Children) cannot take this course for credit
Prerequisite: PSY 101 and PSY 102

## PSY 336 Interviewing

3-3-0
Interviewing techniques are explored by surveying various theories of change (psychoanalytic, existential, feminist, person-centered, cognitive-behavioral, reality, and postmodern). Emphasis is placed on the acquisition of both theoretical knowledge and practical skills that have direct relevance in applied settings. Class discussions, role-playing, and use of video clips are pedagogical tools enjoyed by students.
Students who have taken PSY 230 (Interviewing) cannot take this course for credit Prerequisites: PSY 101, PSY 102 and PSY 206
Co-requisite PMA 353 or permission of the instructor
PSY 337 Crisis Intervention 3-3-0
Engaging class discussions, guest speakers, role plays, videos and practice-based lectures provide a framework for understanding what constitutes a crisis, various types of crises and key elements of crisis assessment and intervention that are used in a variety of crisis situations. Specific crises examined include crises of lethality, conjugal violence, sexual assault, crises of loss and human-made disasters.
Students who have taken PSY 231 (Crisis Intervention) cannot take this course for credit
Prerequisites: PSY 101, PSY 102 and PSY 206

## PSY 342 History of Psychology

3-3-0
An examination of the early conceptions of human nature that influenced psychology's development. The course is presented in two parts, the first examining the nature of history and the history of science. The second part explores the conception of humanity in ancient texts from Homer, Sophocles, Plato, Aristotle and Augustine.
Prerequisite: PSY 101, PSY 102. Open to those students entering their final undergraduate year
PSY 345 Family Therapy 3-3-0
A critical survey of major theories of family dynamics and family therapy, including psychoanalytic; existential, systemic, structural, and strategic approaches. The course also aims to further the student's understanding of his or her own family system through individual and group exercises.
Prerequisite: PSY 101 and PSY 102

## PSY 348 Social Development

3-3-0
An examination of the development of social relationships from childhood to adolescence, with a particular focus on peer relationships. This includes an examination of sociometrics, social-cognitive and emotional processes, bullying, morality, friendships and romantic relationships.
Pre or Corequisites: PSY 101 and PSY 102
PMA 353 Psychometrics and Psychological Testing 3-3-0 The course covers the development process and psychometric properties of typical psychological measurement tools, including norms, reliability, validity, and factor analysis. Critical examination of these properties for selected instruments and different research scenarios will be involved, and students will practice developing
their own measurement tool.
Students who have taken PMA 223 (Psychometrics) or PSY 224 (Issues in Psychological Testing) cannot take this course for credit
Prerequisites: PSY 213 and PMA 260

## PMA 360 Advanced Psychological Statistics

3-3-0
Advanced inferential statistics developed from a conceptual perspective. Topics include one and two-way analysis of variance, repeated measures anova, fixed and random designs, post-hoc and a priori tests. Explorations will also include correlation, regression and their relationship to anova and use of SPSS in analysis. Students who have taken PMA 161 (Psychological Statistics II) cannot take this course for credit
Prerequisite: PMA 260, or the Business (BMA 140 or BMA 141) or Physics (PHY 101) equivalent.

Corequisite: PSY 213
PBI 361 The Psychology of Sexuality
3-3-0
Various aspects of human sexuality from a psychological perspective. Includes the following topics: sexuality in childhood, adolescence, and early through late adulthood; sex differences; androgyny; transsexualism; sexual dysfunction and sex therapy; sexuality in the chronically ill and disabled; homosexuality and bisexuality; historical and cross-cultural sexual attitudes and practices.
Prerequisite: PSY 101. It is highly recommended that students also take PSY 102
PSY 370 Learning and Memory 3-3-0
A seminar course examining theories of learning and memory. The seminars follow a historical sequence examining changes in our understanding of learning and memory. Topics include classical conditioning, behavioural, cognitive and gestalt approaches to learning and memory.
Students who have taken PSY 270 (Learning and Memory) cannot take this course for credit
Prerequisite: PSY 101 and PSY 102
PBI 379 Neuropsychology 3-3-0
Neuropsychology is the study of the relationship between brain structures and behaviour. In this course we will explore the neuroanatomical correlates of both normal and abnormal behaviors in humans. Among the topics to be discussed are the behavioural sequelae of head injury, mood disorders associated with regional trauma and epilepsy, sex differences in cerebral organization, cerebral asymmetries, language and aphasia and the various disorders of perception. Depending on the interests of the students, special topics include dyslexia, alexithymia, Alzheimer's disease, alcoholism and schizophrenia.
Students who have taken PBI 279 or BIO 279 (Neuropsychology) may not take this course for credit
Prerequisite: PSY 101, PBI 288 or permission of the instructor
PBI 380 Psychopharmacology $\quad$ 3-3-0
This course is designed to introduce students in psychology and the natural sciences to the field of psychopharmacology. Emphasis will be placed on the relationships between psychoactive drugs, their mechanisms of action in the nervous system, and human behaviour. Following an analysis of the principles of pharmacology and pharmamacokinetics, as well as the mechanisms of drug tolerance and dependence, the cognitive, emotional and behavioural aspects of specific classes of drugs will be examined. These classes of drugs will include sedatives, hypnotics; stimulants; narcotics; psychotomimetics, psychedelics and hallucinogens.
Students who have taken PBI 280 or BIO 280 (Psychopharmacology) may not take this course for credit
Prerequisite: PSY 101, PBI 288 or permission of the instructor
PBI $388 \quad$ Brain and Behavior II
3-3-0
The physiological bases of motivated behavior (sleep, sex, hunger and thirst), emotions, learning/memory and language. The focus is on normal physiology but some aspects of abnormal physiology (e.g. amnesia, anxiety, schizophrenia) will be addressed.
Students who have taken PBI 228 (Physiological Bases of Behavior II) cannot take this course for credit
Prerequisite: PBI 288 or permission of the instructor
PBI 398 Neuroscience Seminar
3-3-0
This course will be taught as a series of student-led seminars covering a wide range of topics including molecular, cellular, behavioral, cognitive and clinical neuroscience, as well as new developments in psychopharmacology and neuroendocrinology. Course content will vary from year to year to encompass the most recent developments in the field of neuroscience.
Prerequisites: PSY 101, PSY 102, and PBI 288

PBI $399 \quad$ Psychology of Drug Addiction
3-3-0
Despites decades of intense research, development of new therapeutic approaches, and public advertisement campaigns (e.g. "JUST SAY NO", the problem of drug abuse does not want to go away (and in fact is on the rise in the selected demographic groups such as women, adolescents and children). During this course we will examine different classes of addictive substances; discuss various neurobiological, psychological and sociocultural factors implicated in the initiation and development of dependence; as well as evaluate critically the available therapies and interventions for treatment of drug addiction.
Pre or Corequisites: PSY 101, PSY 102 and PBI 288
PSY $406 \quad$ Current Topics In Clinical Treatment Models $\quad$ 3-3-0
This course applies sound scientific methodology in evaluating current clinical treatment models for specific mental disorders. Students will critically examine outcome data from a variety of clinical diagnoses as outlined in the Diagnostic Statistical Manual 5 (DSM 5).
Prerequisite: PSY 301 or PSY 311
Pre or Co-requisite: PMA 353
PSY 409 Advanced Topics in Psychology 3-3-0
This is an advanced seminar that takes an in depth look at some of the key areas of inquiry in Psychology. Topics and instructors will vary, but courses might cover issues such as morality, clinical issues, neuropsychology, community development, and media. Students will engage in reading primary sources, in depth discussions, and critical thinking about the topic presented.
Prerequisite: PSY 101 and PSY 102, PSY 213 and permission of instructor

## PSY $410 \quad$ Psychology of Death and Dying <br> 3-3-0

Death is a human affair, not simply a biological one. Adopting an historical, existential-humanistic psychology perspective, the role of death and its impact on our lives will be examined. Texts from the ancient world will be read along with those written by psychologists (Fechner, James, Freud, Jung, Fromm, Erikson, Frankl, May, Rogers, Skinner, Kübler-Ross and Becker). Integrated throughout the course are contemporary texts drawn from diaries and books by authors who have recorded their experiences with death and dying.
Pre or Corequisites: PSY 206 and PSY 336

## PSY $420 \quad$ Contemplative Practicum

3-0-3
Mindfulness and contemplation are essential for intellectual, emotional and spiritual growth and insight. They facilitate deepening of self-knowledge and understanding of the world around us. In this course, students will get a chance to examine their selves, their minds and their surroundings from the first-person perspective. Each student, in consultation with the course instructor, will select a specific method of self-inquiry (e.g., meditation training, pilgrimage, artistic process) and devote to it approximately $50-70$ hours of practice. The students will be required to keep a detailed diary of their experience describing the process, providing personal insights, comparative analysis, implications and impact of the experience on their lifestyle and philosophy. In addition, students will be encouraged to share their experiences with others during class discussions.
Pre-requisites: Being admitted to Mindfulness \& Contemplative Studies Minor or permission of instructor
PSY 441 Advanced Applied Seminar 3-1-2
As a link between Interviewing (PSY 336) and Applied Practicum (PSY 442), this course is taught as a series of student-led seminars on various clinical topics. Vigorous class debates, meaningful exchanges with guest speakers (from the community at large) and the opportunity to learn and apply basic interviewing skills with video tape feedback are all enriching aspects of this course. Students enrolled in a major program are welcome, providing that they have the prerequisites.
Prerequisites: PSY 101, PSY 102, PSY 206, PMA 353 and at least 75\% in PSY 336

## PSY $442 \quad$ Practicum

3-0-3
Aimed at introducing students to psychology's applied field while sensitizing them to its stakes, this course is completely practical and offers experiential learning opportunities. Students spend $6 \mathrm{hrs} /$ week under close supervision in one of a number of applied settings. Field placements are possible in hospital and school settings, various community organizations, senior citizens' homes, life skills development centres, women's centre, etc., and are assigned in accordance with students' competencies and interests.
Prerequisite: PSY 441

PSY 443 History of Psychology Seminar
3-3-0
A seminar course that examines the effects the scientific revolution on our conception of mind and psychology. The seminars are based on the writings of the Rationalists (Descartes, Spinoza, Leibniz), Empiricists (Locke, Berkeley, Hume) and those that reflect the emergence of Evolutionary thinking and its influences on our conceptions of mind/brain, consciousness and the nature of human science.
Students who have taken PSY 343 (History of Psychology II) cannot take this course for credit
Prerequisite: PSY 342
PMA 460 Multivariate Statistics
3-3-0
An examination of multivariate statistical approaches to research. Topics include multiple correlation, regression, partial \& semipartial analysis, stepwise regression, statistical control, hierarchical modeling, multiple regression with categorical and continuous variables, analysis of covariance, and multivariate analysis of variance. Students who have taken PMA 261 (Multivariate Statistics) cannot take this course for credit
Prerequisite: PMA 360
PSY 462 Qualitative Methods in Psychology 3-3-0
This course provides students a conceptual understanding of qualitative research and their application in psychology. The course introduces major concepts and terms, and different qualitative methods including case studies, in-depth interview, participant observation, life histories (narratives) and ethnographies. It focuses on developing a theoretical understanding of qualitative methodology.
Pre or Corequisites: PSY 101 and PSY 102

## PSY 477 Personality, Health and Well -being 3-3-0

An advanced seminar that undertakes a critical analysis of historical and contemporary theoretical perspectives on the role personality plays in physical and psychological well-being. General topics may include the contribution of personality to physical health and illness, the role of personality in stress and coping, the links among personality, health, and well-being across the adult lifespan, the role of personality in health and well-being in the context of personal relationships, and issues related to the assessment of personality and well-being. Prerequisite: PBI 275 or PBI 276

## PSY 498 Honours Seminar

3-3-0
This seminar aims at exploring cutting-edge issues in Psychological Science. Selected topics from these areas are presented and critically discussed. The course will also guide students as they get their Honours Thesis under way and address practical issues such as applications to graduate school, scholarship applications, GREs and career planning.
Students who have taken PSY 449 (Honours Seminar: Advanced Topics) cannot take this course for credit
Prerequisite: Only open to Honours students (having already completed PSY 313 and PMA 360 with an average of $75 \%$ or above)
Co-requisite: PSY $499 f$
PSY 499F Honours Thesis
6-0-0
Under the guidance of two faculty advisors, the student will formulate a proposal for original research involving the collection of data, undertake the research, and report it both as a public talk and in the form of a thesis conforming to the publication style of the American Psychological Association.
Students who have taken PSY 450 (Dissertation) cannot take this course for credit Prerequisite: Only open to Honours students (having already completed PSY 313 and PMA 360 with an average of $75 \%$ or above)
Co-requisite: PSY 498
PMA 460 is an additional prerequisite for projects involving multivariate research.

## Cognate Courses

These courses may count for Psychology credit.
BHR 221 Organizational Behavior 3-3-0
EDU 201 Educational Psychology 3-3-0
PHI 252 Philosophy of Mind 3-3-0
REL 148 Psychology of Religion 3-3-0

## Courses offered on an irregular basis.

PSY 285<br>Psychology of Reading and Reading Disability

3-3-0
The aim of this course is to consider the psychological processes involved when we read. In particular, the skills that are acquired, the mechanisms involved, and the abilities that are essential will be examined. Why some people fail to acquire reading skills will also be examined. Answers to this question will focus on theoretical approaches to reading disability, and to the question of why some methods of remediation are successful.
Prerequisite: PSY 101 and PSY 102
PSY 309 Industrial and Organizational Psychology 3-3-0 This course introduces students to theories and applications of psychology to human resource concerns in organizations. Topics include: Personnel recruitment, selection, training and performance appraisal; motivation; work attitudes; leadership; group behaviour; and other special topics (e.g., work related stress, applied ethics, and organizational conflict)
Students who have taken BHR 221cannot take this course for credit
Prerequisite: PSY 101 and PSY 102
PBI $320 \quad$ Physiology and Pharmacology of Aging
3-3-0
The major physiological systems will be reviewed, with emphasis on how these systems change during the aging process and how these changes affect the individual's everyday functioning. Topics will include the cardiovascular system; respiratory system; metabolic regulation, digestion and absorption; and electrolyte and mineralocorticoid regulation. A review of basic pharmacological principles and mechanisms of action will follow this. Finally, we will discuss how the aging process interacts with various types of medications most frequently prescribed to elderly people, and some common idiosyncratic reactions seen in the elderly. Also, the special precautions which must be observed in prescribing and administering drugs to the elderly will be outline.
Prerequisite: PSY 101. It is highly recommended that students also take PSY 102

## PSY 330

Psychology and Ethics
3-3-0
A wonderful way to learn how to think ethically in several areas of psychology. Students learn about the importance of fundamental ethical principles, values, theoretical and practical models of ethical decision-making and legal considerations, while engaged in the comparison of relevant ethics codes (with particular emphasis on the CPA code of ethics). Specialized topics include confidentiality, multiple relationships, the ethics of teaching, the ethics of counselling, the ethics of assessment, research ethics, and ethics in forensic settings. Class discussions are part and parcel of this course.
Prerequisite: PSY 101 and PSY 102
PSY 350 Environmental Psychology
3-3-0
Influence of the physical and cultural environment on behaviour, including factors such as heat, noise, crowding, traffic, buildings and urban design. Costs and benefits of city and rural lifestyles. Technology and the working environment. Population, resources and environment.
Prerequisite: PSY 101 and PSY 102
PSY 356 Forensic Psychology
3-3-0
This course provides broad overview of the issues and processes of Forensic Psychology. Topics include social/cognitive topics such as eyewitness testimony, jury decision making, and police procedures as well as abnormal/clinical topics such as the meaning of being unfit to stand trial, mentally disordered offenders and psychopathy.
Prerequisite: PSY 101 and PSY 102

## PSY $386 \quad$ Psychology of Language 3-3-0

The aim of this course is to provide students with a broad introduction to psychological phenomena in language acquisition and use. The structure of language and speech will be described briefly. Emphasis will be placed on a number of topics, including; language development, perception of language, word meaning and semantic memory, syntax and discourse processing, language production and conversational interaction, cultural influences and bilingualism, and language errors and disorders.
Prerequisite: PSY 101 and PSY 102
PSY 408 Psychology of Consciousness
3-3-0
A critical examination of consciousness in scientific psychology. Major topics are the nature of consciousness (e.g., consciousness and brain, states of consciousness), the methodology for studying consciousness (e.g., introspection), and the function of conscious experience (e.g., free will, conscious processing in cognition).
Prerequisite: PSY 101 and PSY 102

Sociology

## Faculty

## Vicki Chartrand,

B.S.Sc., M.A. (Ottawa), Ph.D. (Macquarie);

Associate Professor
Chair of the Department

## Steven Cole,

B.A. (Trent), M.A. (Queen's),

Ph.D. (Alberta);
Full Professor

## Mary Ellen Donnan,

B.A. (Saskatchewan), M.A., Ph.D.(Carleton);

Full Professor

## Cheryl Gosselin,

B.A. (Bishop's), M.A. (Concordia),

Ph.D. (Montreal);
Full Professor

## Program Overview

The Department of Sociology provides students with theoretical and methodological tools and substantive insights which can assist them in understanding social life, social organization, and action. The program is designed to provide students with a broad intellectual and sociological background which will help prepare them for a variety of careers and for advanced study at graduate school. The small size of our program and the dedication of our faculty, allow us to provide personal attention to students and access to faculty. Through required courses and study concentrations, students are given substantial flexibility in meeting individual intellectual pursuits and preparation for satisfying employment after university. We offer a minor, major, or honours in Sociology as well as three programs that allow students to concentrate their studies (see down). Students are encouraged to participate in the Experiential Learning program which is linked to their academic field of studies and involves course work and placement in an organization.

The subject matter of our courses ranges widely from theoretical to applied study and our professors employ diverse pedagogies to facilitate student learning. The department has particular strengths of faculty expertise in the areas of Indigenous-Settler relations, criminology, theory, policy, health and family, and gender and diversity studies.

## Careers in Sociology

Recent graduates of the program have embarked on many careers including: education; media, communications, public relations and journalism; policing and corrections; health and social services; a wide variety of careers in both the private and public sector, management and business; graduate degrees in Sociology, and related disciplines and in law and other professional schools. To view an extensive list of career options and to contact graduates of our program please consult our departmental website at: $h$ ttp:// www.ubishops.ca/academic-programs/social-sciences/sociology

|  | Program Summary Table |  |
| :---: | :---: | :---: |
|  | Sociology Major <br> Concentration B: <br> Family, Health <br> and Community <br> MAJSFH <br> Required Courses: <br> All of the Major course requirements plus: <br> SOC 205 Family I <br> SOC 214 Aging <br> SOC 260 Community <br> SOC 307 Sociology of Health <br> Elective Courses: <br> 15 credits (5 courses) from List B below <br> Sociology Major <br> Concentration C: <br> Criminology, Law <br> and Social Policy <br> MAJSCL <br> Required Courses: <br> All of the Major course requirements plus: <br> SOC 208 Criminology <br> SOC 230 Deviance I <br> SOC 295 Social Inequality <br> SOC 307 Sociology of Health <br> Elective Courses: <br> 15 credits (5 courses) from List C below <br> Honours Sociology HONSOC <br> 61 credits <br> There is an optional 6-credit thesis for all <br> Honours'programs <br> Required Courses: <br> All of the Major course requirements <br> plus: <br> SOC 311 Quantitative Data Analysis <br> SOC 402 Honours I <br> SOC 404 Honours II <br> SOC 490 Contemp. Theory <br> Plus one of: <br> SOC 315 Political Soc. in the Digital Era <br> SOC 320 Knowledge <br> SOC 322 Urban Sociology <br> SOC 340 Women, Theory and Ideology <br> SOC 396 Post Colonial Theory <br> SOC 361 Qualitative Studies | Honours Sociology <br> Concentration A: <br> Gender, Diversity a nd Equity Studies <br> HONSGD <br> Required Courses: <br> All of the Major Concentration course requirements plus: <br> SOC 311 Quantitative Data Analysis <br> SOC 402 Honours I <br> SOC 404 Honours II <br> SOC 490 Contemporary Theory <br> Plus: <br> WOM 305 Women and Feminism Selected Topics <br> One more elective from List A below <br> Honours Sociology <br> Concentration B: <br> Family, Health <br> and Community <br> HONSFH <br> Required Courses: <br> All of the Major Concentration course requirements plus: <br> SOC 311 Quantitative Data Analysis <br> SOC 402 Honours I <br> SOC 404 Honours II <br> SOC 490 Contemp. Theory <br> Plus: <br> SOC 305 Family II <br> One more elective from List B below <br> Honours Sociology <br> Concentration C: <br> Criminology, Law <br> and Social Policy <br> HONSCL <br> Required Courses: <br> All of the Major Concentration course <br> requirements plus: <br> SOC 311 Quantitative Data Analysis <br> SOC 402 Honours I <br> SOC 404 Honours II <br> SOC 490 Contemp. Theory <br> Plus: <br> SOC 235 Women and the Penal <br> System <br> OR <br> SOC 331 Deviance II <br> One more elective from List C below |


| Minor in Sociology MINSOC <br> 24 credits ( 8 courses) |  | SOC 280 Interpersonal | Elective Courses: 27 credits (9 courses) from: |
| :---: | :---: | :---: | :---: |
|  |  | Communication | 27 credits (9 courses) from: |
|  |  | SOC 305 Family II | WOM 120 Women \& the La |
| Required Courses: SOC 101 |  | SOC 361 Qualitative Studies | WOM 201 Women and Feminism in |
| Plus 7 other courses in Sociology |  | Minor in Gender, Diversity, | WOM 301 Directed Independent Study |
| Minor in Criminology |  | Equity Studies MINSGD | WOM 305 Women and Feminism: |
|  |  | 24 credits (8 courses) | Selected Topics <br> WOM 230/ DRA 230 Women in |
| 24 credits (8 courses) |  | Required Course | Performanc |
|  |  | WOM 101 Introduction | SOC 129 Sex and Gende |
| Required Courses: |  | Women's Studi | SOC 205 Family I |
| SOC 208 | Criminology | Electives Courses: | SOC 223 Women and Global |
| Two of: |  | 21 credits (7 courses) from Gender, | Inequality |
| $\begin{aligned} & \text { SOC } 211 \\ & \text { SOC } 311 \\ & \text { PMA } 260 \end{aligned}$ | Research Methodology <br> Quantitative Methodology | Diversity, Equity Studies Concentration | SOC 229 $\begin{array}{l}\text { Communication: Gender and } \\ \text { Culture }\end{array}$ <br> SOC 235  |
|  | Quantitative Data Analysis |  | SOC 235 Women and the Penal |
|  | Psych Statistics | Certificate in Gerontology CONGRN | SOC 241System <br> Cinema |
| Five of: |  | 30 credits (10 courses) | SOC 305 Family II: Selected Topics |
| SOC 101 | Introduction to SOC |  | SOC 340 Women: Theory and |
| SOC 102 | Quebec Society I | Required Courses: | Ideology |
| SOC 207 | Sociology of IndigenousSettler Relations | 24 credits (8 courses) <br> SOC 214 Aging | CLA 250 Sex and Gender in the |
| SOC 230 | Deviance I | PSY 266 Adult Development and | Ancient World <br> CLA 350 The Goddess: History, Cult |
| SOC 235 | Women in the Penal System | Aging <br> BHR 221 Organizational Behaviour | and Myth |
| SOC 245 <br> WOM 120 | Race and Ethnicity Women \& the Law | BHR 221 Organizational Behaviour <br> SOC 110 Research Methodology | DRA 202 Contemporary American |
|  | Women \& the Law Political Soc. in the | PBI 320 Physiology and | Drama |
| SOC 315 | Digital Era | Pharmacology of Aging | DRA 203 Contemporary European |
| SOC 298 | Social Problems | PSY 367 Counselling of Older Adults | DRA 273 Women Dramatists |
| SOC 331 | Deviance II | GRN 300 Selected Topics in Aging | DRA 212 Theatre \& the State |
| POL 314 | Law, Politics \& Canadian | EDU 320 Education and Aging | ENG 115 Women Writers before 1900 |
|  | Society | Elective Courses: | ENG 239 Feminist Literary Theory |
| ECO 126 | Economics of Crime and Criminal Justice | Choose 6 credits (2 courses) from: SOC 217 Social Policy of Aging | ENG 275 The Contemporary Canadian Novel: "The Myths Are My |
| Minor in Gerontology |  | SOC 215 Culture, Ethnicity and Aging | Reality" |
|  |  | SOC 260 | ENG 334 Restoration and Eighteenth |
| 24 credits (8 courses) + ILT 104 |  | Certificate in Gender, Diversity | and Intrigue |
| Required Courses: |  | \& Equity Studies CONSGD | FRA 263 De la féminité au féminisme |
| Required | Research Methodology | 30 credits (10 courses) | FRA 284 Littérature et condition des femmes au Québec |
| ILT 104 | Information Retrieval (lab) | Required Course: | HIS 288 Women in 19th and 20th |
| SOC 211 | Quantitative Methodology | WOM 101 Introduction to | Century Canada |
| SOC 214 | Aging | Women's Studies | PSY 219 Psychology of Women |
| PSY 266 | Adult Development |  | PSY 123 Multicultural Psychology |
|  | and Aging |  | PSY 231 Crisis Intervention |
| Elective Courses: |  |  | PBI 361 The Psychology of Sexualit |
| 12 credits (4 courses) of: |  |  | PSY 345 Family Dynamics |
| BHR 221 | Organizational Behaviour |  | REL 204 Women in Religion |
| EDU 320 Education and Aging |  |  | REL 207 Sex and Religion |
| GRN 300 Directed Independent Study |  |  | *Other courses may be taken for group |
| PSY 367 Counselling of Older Adults |  |  | 2 credit, with the approval of the coordi- |
| $\text { SOC } 205$ |  |  | nator of the Women's Studies section of |
| SOC 215 Culture, Ethnicity and Aging |  |  | Sociology. |
| SOC 217 | SOC 260 Community |  |  |


| List A: <br> Concentration in Gender, Diversity and Equity Studies: |  |
| :---: | :---: |
| SOC105 | Media and Society I |
| SOC 202 | Directed Independent Study I |
| SOC 203 | Directed Independent Study II |
| SOC 205 | Family I |
| SOC 207 | Sociology of Indigenous-Settler Relations |
| SOC 214 | Aging |
| SOC 215 | Culture, Ethnicity and Aging |
| SOC 217 | Social Policy of Aging |
| SOC 219 | Sociology of the Body |
| SOC 229 | Communication, Gender and Culture |
| SOC 223 | Women and Global Inequality |
| SOC 235 | Women and the Penal System |
| SOC 245 | Race and Ethnicity |
| SOC 250 | Social Movements |
| SOC 292 | Social Policy |
| SOC 294 | Sociology of Tourism |
| SOC 299 | Sociology of Education |
| SOC 302 | Directed Independent Study III |
| SOC 303 | Directed Independent Study IV |
| SOC 305 | Family II: Selected Topics |
| SOC 307 | Sociology of Health |
| SOC 320 | Knowledge |
| SOC 322 | Urban Sociology |
| SOC 340 | Women, Theory and Ideology |
| SOC 490 | Contemp. Theory |
| WOM 120 | Women and The Law |
| WOM 301 | Directed Independent Study |
| WOM 305 | Women and Feminism: Selected Topics (see requirements for Honours in this concentration) |
| CLA 250 | Sex and Gender in the Ancient World |
| CLA 350 | The Goddess: History, Cult and Myth |
| DRA 202 | Contemporary American Drama |
| DRA 203 | Contemporary European Drama |
| DRA 212 | Theatre and the State |
| DRA 273 | Women Dramatists |
| DRA 237 | Theatre Lab |
| DRA 230 | Women in Performance |
| ELL 200 | Experiential Learning Lab |
| ELP 300 | Experiential Learning Placement |
| ENG 115 | Women Writers Before 1900 |
| ENG 239 | Feminist Literary Theory |
| ENG 275 | The Contemporary Canadian Novel |
| ENG 353 | Boy Meets Girl: American Literature |
| FRA 263 | De la féminité au féminisme |
| FRA 284 | Littérature et condition des femmes au Québec |
| HIS 308 | Women in America 1765-1920 |
| HIS 331 | Women in 19th and 20th Century Canada |
| HIS 380 | Women in Modern British History |
| LIB 213 | The Use and Abuse of Beauty |
| POL 242 | International Organizations: |
|  | Principles, Institutions and Politics |


| POL 246 | Gender and Politics |
| :--- | :--- |
| PSY 210 | Psychology of the Couple |
| PSY 219 | Psychology of Women |
| PSY 293 | Multicultural Psychology |
| PSY 337 | Crisis Intervention |
| PSY 345 | Family Dynamics |
| REL 204 | Women in Religion |
| REL 208 | Sex and Religion |

List B:
Concentration in Family, Health and Community
SOC 107 Indigenous and First Nations Peoples in Canada
SOC 129 Sociology of Sex and Gender
SOC 155 Sociology of Sport
SOC 202 Directed Independent Study 1
SOC 203 Directed Independent Study 11
SOC 209 Young Offenders
SOC 215 Culture, Ethnicity and Aging
SOC 217 Social Policy of Aging
SOC 219 Sociology of the Body
SOC 220 Work and Leisure
SOC 223 Women and Global Inequality
SOC 229 Communications: Gender and Culture
SOC 235 Women and the Penal System
SOC 245 Race and Ethnicity
SOC 280 Interpersonal Communications
SOC 298 Social Problems
SOC 299 Sociology of Education
SOC 292 Social Policy
SOC 305 Family II (see requirements for Honours in this concentration)
SOC 308 Formal Organization
SOC 302 Directed Independent Study III
SOC 303 Directed Independent Study IV
SOC 322 Urban Sociology
SOC 340 Women: Theory and Ideology
SOC 361 Qualitative Studies
WOM 101 Introduction to Women's Studies
WOM 120 Women and the Law
WOM 201 Women and Feminism in Canada
WOM 305 Women and Feminism: Selected Topics
WOM 301 Directed Independent Study
ELL 200 Experiential Learning Lab
ELP 300 Experiential Learning Placement
ENG 210 History of Children's Literature
GRN 300 Selected Topics in Aging
PBI 320 Physiology and Pharmacology of Aging
PBI 361 The Psychology of Sexuality
PSY 210 Psychology of the Couple
PSY 219 Psychology of Women
PSY 235 Child Development: Infancy to Middle Childhood
PSY 266 Adult Development and Aging
PSY 290 Adolescence
PSY 337 Crisis Intervention
PSY 367 Counselling of Older Adults
PSY 345 Family Dynamics

| List C: |  |
| :---: | :---: |
| Concentration in Criminology, Law and Social Policy |  |
| SOC 105 | Media and Society I |
| SOC 107 | Indigenous and First Nations Peoples in Canada |
| SOC 202 | Directed Independent Study I |
| SOC 203 | Directed Independent Study II |
| SOC 205 | Family I |
| SOC 209 | Young Offenders |
| SOC 214 | Aging |
| SOC 215 | Culture, Ethnicity and Aging |
| SOC 217 | Social Policy of Aging |
| SOC 220 | Work and Leisure |
| SOC 235 | Women and the Penal System (see requirements for Honours in this concentration) |
| SOC 245 | Race and Ethnicity |
| SOC 250 | Social Movements |
| SOC 260 | Community |
| SOC 298 | Social Problems |
| SOC 299 | Sociology of Education |
| SOC 281 | Communications Methods |
| SOC 302 | Directed Independent Study III |
| SOC 303 | Directed Independent Study IV |
| SOC 305 | Family II: Selected Topics |
| SOC 308 | Formal Organization |
| SOC 311 | Quantitative Data Analysis (see requirements for Honours in this concentration) |
| SOC 315 | Political Sociology in the Digital Era |
| SOC 321 | Sociology of Technology |
| SOC 322 | Urban Sociology |
| SOC 331 | Deviance II: Selected Topics (see requirements for Honours in this concentration) |
| SOC 340 | Women: Theory and Ideology |
| WOM 120 | Women and The Law |
| WOM 101 | Introduction to Women's Studies |
| ECO 126 | Economics of Crime and Criminal Justice |
| ELL 200 | Experiential Learning Lab |
| ELP 300 | Experiential Learning Placement |
| ESG 350 | Environmental Justice |
| PHI 100 | Introduction to Ethics |
| PMA 160 | Psychological Statistics I |
| PMA 260 | Psychological Statistics |
| POL 173 | US Government and Public Policy |
| POL 314 | Law, Politics and Canadian Society |
| POL 345 | Introduction to Public International Law |
| PSY 356 | Forensic Psychology |

List C:
Concentration in Criminology, Law and Social Policy
SOC 105 Media and Society I
SOC 107 Indigenous and First Nations Peoples in Canada
SOC 202 Directed Independent Study I
SOC 203 Directed Independent Study II
SOC 205 Family I
SOC 209 Young Offenders
SOC 214 Aging
SOC 215 Culture, Ethnicity and Aging
SOC 217 Social Policy of Aging
SOC $220 \quad$ Work and Leisure
SOC 235 Women and the Penal System
(see requirements for Honours in this concentration)
SOC 245 Race and Ethnicity
SOC 250 Social Movements
SOC 260 Community
SOC 298 Social Problems
SOC 299 Sociology of Education
SOC 281 Communications Methods
SOC 302 Directed Independent Study III
SOC 303 Directed Independent Study IV
SOC 305 Family II: Selected Topics
SOC 308 Formal Organization
SOC 311 Quantitative Data Analysis (see requirements for Honours in this concentration)
SOC $315 \quad$ Political Sociology in the Digital Era
SOC 321 Sociology of Technology
SOC 322 Urban Sociology
SOC 331 Deviance II: Selected Topics
(see requirements for Honours in this concentration)
SOC 340 Women: Theory and Ideology
WOM 120 Women and The Law
WOM 101 Introduction to Women's Studies
ECO 126 Economics of Crime and Criminal Justice
ELL 200 Experiential Learning Lab
ELP 300 Experiential Learning Placement
ESG 350 Environmental Justice
PHI 100 Introduction to Ethics
PMA $160 \quad$ Psychological Statistics I
PMA 260 Psychological Statistics
POL 173 US Government and Public Policy
POL 314 Law, Politics and Canadian Society
POL 345 Introduction to Public International Law
PSY 356 Forensic Psychology

## Sociology Program Guidelines

All majors and Honours in Sociology (with or without concentration) must complete the lab course ILT 104: Information retrieval and Evaluation Skills for the Social Sciences.

The MAJOR in Sociology (with or without concentration): all new students enter the department with a major in Sociology and are encouraged to take a concentration or a second Major or minor(s) from other departments.

Majors and Honours in Sociology should complete the six required courses in their first two years and the 7th course at the 300 level in their third year. Majors seriously considering graduate school should complete an Honours in Sociology.

During the first year, students should complete SOC 101 and SOC 100 in the Fall term, during the Winter term of the first year, students should complete SOC 102 and SOC 110. SOC 211 will be taken in the Fall term of their second year.

The remaining 27 credits of the Major are electives and may be chosen from any SOC course listed. The student may request up to 6 credits from other disciplines be considered (by the Chair) for cognate credit in the Major or Honours in Sociology. Any student who wishes exemption from a requirement should submit a request and relevant documentation (course outlines) to the Department Chair and the professor of the course before registration is completed.

## Sociology Honours

HONSOC

## The HONOURS in Sociology (without concentration)

In the final year of the Honours Program (Year 3 or 4, whichever is last), students are required to complete SOC 402 (Honours I: Special Topics) and SOC 404 (Honours II: Research Strategies). The Thesis is optional ( 6 credits, and done in the final year of Honours). The Department reserves the right to review the overall academic performance and integrity of students in its programs. Students wishing to graduate with an Honours degree combined with any concentration should consult the list of concentrations previous for additional requirements.

## Sociology Major with a Concentration

The major in Sociology with any of the three concentrations consists of 48 credits, plus ILT 104.

Elective courses for each of the concentrations are often offered on a rotation rather than every year so you are advised to watch for them in the timetable and register for them when they are available.

## Criminology Minor

MINCRM
We offer a number of courses germane to the pursuit of a degree in criminology. Many criminology programs originated in, and take for granted, sociological research, theories and methods. Students seriously considering graduate studies in Criminology should complete the Honours Concentration in Criminology, Law and Social Policy. Students consult with the Department Chair and Calendar course descriptions to assure completion of program outlined below. No limitation on cross-counting of courses between this and other programs is in effect.

## Gender, Diversity \& Equity Studies Minor

This minor consists of a minimum of 24 credits (see course list from Gender, Diversity \& Equity Concentration). WOM 101 is required.

## Certificate in Gerontology Sociology Department

 CONGRNThis program in Gerontology is presented from a multidisciplinary perspective. Its bio-psycho-social approach will provide persons currently working or planning to work with the elderly with the theoretical and practical knowledge and skills necessary to deal effectively with the needs of our aging population.

## Certificate in Gender, Diversity and Equity Studies <br> CONSGD

The certificate in Gender, Diversity and Equity Studies (formerly Women's Studies) program at Bishop's has been developed to offer students the opportunity to explore gender in society, past and present, applying new concepts that have emerged in feminist scholarship over the past two decades. A major and a minor are offered (see Multidisciplinary Studies).

Also interdisciplinary in design, the Certificate in Gender, Diversity and Equity Studies provides courses ranging over a wide variety of subject areas and is open only to part-time students. Part-time students may take these courses in the Fall, Winter and Summer evening sessions or in the day with permission of the department concerned.

## List of Courses

SOC 100
Sociological Imagination
3-3-0
The primary objective of this course is to stimulate curiosity about that part of people's behaviour that is determined by relationships with others and by membership in groups. This course examines and evaluates the contribution sociology makes to the ongoing process of attempting to understand the surrounding social world. This course is intended for students who are either lacking introductory sociology or need to improve their effective writing skills in the discipline.
SOC 101
Introduction to Sociology
3-3-0
This course introduces the foundations of sociology by examining numerous theoretical and empirical issues/debates. Special emphasis will be placed on understanding "the social" or "society" as a distinct and unique object of scientific analysis. Students are also encouraged to use sociological understandings to "make sense" of their personal lives.

## SOC 102 Québec Society I

3-3-0
The course presents an analysis of Québec in historical perspective, and examines nationalism, bilingualism and social structures.
This course is required of all Sociology Minors, Majors, and Honours students.

## SOC 105 Media and Society I

3-3-0
An introduction to the impact of media upon society and the social structuring of contemporary media as industries which produce values and ideology.
SOC 107 Indigenous and First Nations Peoples in Canada 3-3-0 An introduction to the study of First Nations in Canada.

SOC 110
Research Methodology
3-3-0
Sociological research will be dealt with in its quantitative and qualitative orientations. Students will be introduced to techniques of conceptualization, hypothesis formulation, and operationalization.
This course is required of all Sociology Majors and Honours students.
SOC 129 Sex and Gender
3-3-0
The relation between sex and gender is examined in terms of roles and values, social inequality and transformations in these over time; the interface between class, gender, and ethnicity is examined with regard to specific social problems and theories.
SOC 190 Introduction to Postcolonial Study
3-3-0
An introduction to postcolonial theory and sociological issues arising from the cultural and economic conditions left behind by colonizers and the colonized. By looking at events in countries such as India, Nigeria, the Congo and other former colonies we come to understand the challenge of developing theoretical perspectives which grasp the complex influences of colonizer and colonized upon each other.
SOC 202 Directed Independent Study I
3-3-0
A tutorial course in which the student (normally a major) may pursue his or her interests in a selected area of sociology, under the direction of a member of the Department.
Prerequisite: Permission of the instructor and the Department
SOC 203 Directed Independent Study II
3-3-0
See SOC 202
Permission of the instructor and the Department
SOC 204 Experiential Learning in Sociology I 3-3-0 The course integrates a sociology student's research interests with the opportunity to participate with and explore a community organization or other coordinated social phenomena. A required component is a minimum 30 hours of active participation. A substantive written analysis, based partially on the student's participatory research experience, and partially upon a study of the relevant literature is also required. It is up to the student to get agreement from the appropriate organization representative(s) for participation in the course and to recruit a professor to be their instructor.
SOC 205 Family I 3-3-0
Changing forms and functions of the family in Western society; growth and decline of the symmetrical family, definitions, theories, marital and sexual roles, and child rearing.
SOC 207 Sociology of Indigenous-Settler Relations
3-3-0
The course examines the sociology of strategies of assimilation and the forms of resistance to these strategies in North America.
SOC 208 Criminology
3-3-0
A survey of theories of crime and criminality in relation to class, race and gender. Substantive issues will include: murder, prostitution, legal and illegal drug use, woman abuse, white collar crime, and organized crime.
SOC 209 Young Offenders
3-3-0
The subject of young offenders in Canada is addressed using both contemporary critical theory and empirical evidence. The topics covered include the treatment of youth in Canada by the justice system, enforcement agencies, and their social realities. Variables of class, social inequality, gender and ethnicity contribute to the examination of the relationships of youth to criminal trends and behaviors patterns.
SOC 211
Quantitative Methodology and Research Design in the Social Sciences

3-3-0
This is an introductory course to quantitative data analysis. The course covers the principles of research design and statistical analyses frequently used in the social sciences. This is an important preparatory course for more advanced courses in quantitative methods.
Prerequisite: SOC 110
SOC 214 Aging
3-3-0
Aging and the life course perspective. Sociological theories on aging in relation to gender, class, and ethnicity.
SOC $219 \quad$ Sociology of the Body
3-3-0
Notions of the body as the cultural representation of our contemporary "embodied" selves will be explored. This course will uncover the strategies of social, political and economic forces as theses problematize the body and seek to control, manipulate, and alter behaviour.

SOC 221 Modern Sociological Theory I 3-3-0
An introduction to the nature and purpose of sociological theory. Students will learn the foundations of theory (ontology, epistemology, methodology) and social theory's historical development before examining the work of Emile Durkheim. It is recommended that students complete SOC 101 prior to taking this course.
Prerequisite: SOC 101
SOC 222 Modern Sociological Theory II
3-3-0
Building from the ideas established in SOC 221, this course pursues an extensive analysis and critical evaluation of Karl Marx and Max Weber's respective work. Prerequisite: SOC 221 or permission of the instructor
SOC $223 \quad$ Women and Global Inequality
3-3-0
This course considers the social location of women within a political economy of globalization. Understanding women's diverse lives requires attention to public, private, local, regional, national and global factors.

## SOC 225 Québec Society II

3-3-0
Selected topics for analysis of the values, ideologies, behaviour patterns and material culture of Québec society. The course critically examines Québec society during modernity and early post-modernity and draws heavily on artistic and cultural representations (painting, sculpture, literature, etc.)
It is recommended that students take SOC 102 or SOC 101 prior to this
SOC 229 Communications: Gender and Culture 3-3-0
This course examines how society defines gender through communication and what that means for our institutional and personal lives, safety, relationships, and professional opportunities. The focus is on how men and women participate in the social construction of gender, its impacts, and efforts to achieve equality. Topics include: gendered identities, gendered verbal and non-verbal communication about race, gender and violence in the workplace and other institutional or personal settings.
SOC 230
Deviance I
3-3-0
Definitions of deviant behaviour, social roles of deviants and the structure of control.

SOC 235 Women and the Penal System
3-3-0
A critical understanding of gender in criminology. Substantive issues will include: Sexual assault and the justice system, women and family law in the courts, domestic violence, gender and murder. Contemporary theories in criminology and their application are examined.

## SOC 241 <br> Cinema <br> 3-3-0

Culture phenomena and values such as: class interest, gender roles, important events, national character and foreign policy, the ideal family, the deviant, etc., are reflected and contested in film. Students will be exposed to and discuss a variety of theories and methods of analyzing culture by way of film as industry and meaning creation.

## SOC 245

Race and Ethnicity
3-3-0
The sociology of multiethnic and multiracial societies examines social conflicts over the distribution of resources and power; racism and multicultural ideologies are examined.
SOC 250 Social Movements $\quad$ 3-3-0
Macro-structures of society such as crowds, publics, fads and riots are examined, including evolving collectivities and their subsequent ideological transformations.
SOC 260 Community
3-3-0
A comparative and historical analysis of rural, urban, and ethnic communities.
SOC 280 Interpersonal Communication $\quad \mathbf{3 - 3 - 0}$
Human interaction at the macrosociological level. Equality, domination, integration, marginalization, co-operation and conflict will be examined.
SOC $291 \quad$ Sociology of Art
An introduction to the Sociological study of the Arts. The course focuses on the social practices and organizational frameworks related to artistic production/ creation, mediation processes, and the reception of art works and artists. Attention will be given to issues related to race, gender, class, and power.
SOC 292 Social Policy
3-3-0
Introduction to the sociological study of social policy in the Canadian context. The course will examine civil society in relation to a rapidly changing policy context. The development and outcomes of policy will be investigated from a number of theoretical perspectives.
Prerequisites: SOC 101, and SOC 102, and SOC 110 and SOC 211 or POL 173 or ECO 109

SOC 294 Sociology of Tourism
3-3-0
Travel, journeys and their associated human migrations are the key areas of focus in this course. While movement for purposes of rest and recreation has always been part of our collective legacy, in this world of increasing globalization, the mass tourist industry and a variety of leisure activities has helped transform many locations around the globe. The course will explore tourism, in all its forms and the impact of traveling, both positive and negative, on cultures, sustainability and the environment.
SOC 296 Globalism and Culture
3-3-0
An introduction to key concepts for the current understanding and applications of cultural and social globalization.
SOC 298 Social Problems $\quad$ 3-3-0
The course develops a structural understanding of crime, health, inequality, and environmental destruction etc. Situating these problems within the framework of contemporary capitalism, it examines their root causes and possible solutions.
SOC 299 / EDU 303 Sociology of Education
3-3-0
Comparative study of the Canadian education system and processes in light of current sociological theory and research
SOC 302 Directed Independent Study III
3-3-0
See SOC 202
Prerequisite: Permission of the instructor and the Department
SOC 303 Directed Independent Study IV
See SOC 202
Prerequisite: Permission of the instructor and the Department.
SOC 304 Experiential Learning in Sociology II 3-3-0
The course integrates a sociology student's research interests with the opportunity to participate with and explore a community organization or other coordinated social phenomena. A required component is a minimum 30 hours of active participation. A substantive written analysis, based partially on the student's participatory research experience, and partially upon a study of the relevant literature is also required. It is up to the student to get agreement from the appropriate organization representative(s) for participation in the course and to recruit a professor to be their instructor.
SOC 305 Family II: Selected Topics 3-3-0
An advanced seminar on selected issues affecting the family in historical and contemporary settings involving the relationship between public and private spheres and between production and reproduction.
Prerequisite: SOC 205
SOC 307 Sociology of Health
3-3-0
This course seeks to examine the place of health and illness in society, the relationship between bio-medical problems and the social, political and economic realities that help shape them. Topics will include poverty and health, mental illness, aging, death and dying, professionalism, health service organization, inequalities in health service access and use, recent policies and difficulties with health care reform.

## SOC 309 Advanced Seminar in Global Colonization

 and Decolonization3-3-0
Colonialism and imperialism are considered in relation to settler societies and global power structure. This course questions theories of decolonization and liberation in the context of cultural and economic empires.
Prerequisite: SOC 207 or SOC 245
SOC 311 Quantitative Data Analysis with Computer Software 3-3-0
This is a more advanced course in quantitative methods. Students will learn how to manage and analyze quantitative data with computer software. Tpics include data entry, statistical procedures and interpretation of output.
Prerequisites: SOC 110 and SOC 211, or permission of instructor. Required for Honours Sociology students.
SOC $315 \quad$ Political Sociology in the Digital Era 3-3-0
This course examines the state and policy making in Canadian and global contexts, from a sociological perspective. Marxist, feminist and traditional theories are examined.
SOC $320 \quad$ Knowledge
3-3-0
How do we know what we know? An analysis of the role of ideas in the development of social institutions and the impact of belief systems on social values. Science, politics, education, religion, the arts and the professions are examined.

SOC 321 Sociology of Technology
3-3-0
The social and cultural context of technology as it has become embedded at the local and global arena. Topics may include: social theories of knowledge and information, the political economy of information, the development of technology as a tool of consumption, and knowledge production.
Prerequisite: SOC 101 and SOC 110 and SOC 211
SOC $322 \quad$ Urban Sociology
3-3-0
Theories of urban growth and development; comparative analysis of cities and their problems.
Prerequisite: SOC 101 and SOC 110 and SOC 211 or ESG 126
SOC 331 Deviance II: Selected Topics 3-3-0
Selected topics such as drugs, homosexuality, prostitution and juvenile delinquency will be discussed.
Prerequisite: SOC 208. SOC 230 recommended.
SOC 340 Women: Theory and Ideology
3-3-0
Women are viewed as both object and subject of ideological and theoretical discourses. Oppression and liberation are investigated from a variety of theoretical perspectives.
Prerequisite: Some women's studies background is required. Register with permission of the instructor
SOC $361 \quad$ Qualitative Studies
3-3-0
Introduction to the theory, methods, and practice of qualitative sociological research. Various qualitative research methods, techniques, and strategies are explored.
Prerequisites SOC 101, and SOC 110 and SOC 111
SOC $396 \quad$ Post Colonial Theory
3-3-0
Advanced seminar in contemporary postcolonial theories.
Prerequisite: Prerequisite SOC 190 or SOC 107 or ENG 228 or ENG 375

## SOC $402 \quad$ Honours I: Special Topics

3-3-0
The course accommodates the study of particular sociological topics at an advanced undergraduate level. Subjects will vary from year to year.
Required for Honours Sociology students; normally to be taken in the final year. Prerequisite: Permission of the department chair is required
SOC 403 Directed Independent Study V
3-0-0
A tutorial course in which the student (normally a major) may pursue his or her Interests in a selected area of sociology, under the direction of a member of the Department.
SOC 404 Honours II: Research Strategies 3-3-0
This course examines research procedures, the objectives and limits of particular approaches, and the relationships between theory, research strategy and its application.
Required for Honours Sociology students
Prerequisite: Permission of the department chair is required
SOC 450 Thesis
6-0-0
Supervised honours research project under the direction of an instructor.
This is an option for Honours Sociology students only and must be submitted to the Department upon completion.
Prerequisite: The completion of all required courses within the Major and the permission of the Departmental member who acts as the thesis advisor. Normally taken along with 402 and 404 in the final year of the Honours Sociology program.

## SOC 490 Contemporary Theory

3-3-0
A survey of twentieth century theory through a variety of schools including symbolic interactionism, functionalism, neo-Marxism, feminism, modernism and postmodernism.

## WOM 101 Introduction to Women's Studies <br> 3-3-0

This course introduces students to selected interdisciplinary background and methods of research in women's and gender studies.
A prerequisite and required in all Women's Studies Programs/degrees.
WOM 201 Women and Feminism in Canada
3-3-0
This course explores women's gendered experiences in Canadian society, specifically the impacts of diverse social problems and globalization on women. The analytical concept of gender in conjunction with class, identity, race and ethnicity will be used. The importance of feminist thought on Canadian policy, internationalism, human security and human rights may also be addressed.
WOM 301 Directed Independent Study
3-3-0
A student undertakes independent study with a faculty member in the programs.
Prerequisite: Permission from the coordinator and the instructor.

WOM 305 Women and Feminism: Selected Topics
3-3-0
This course explores advanced theoretical and methodological issues in feminism. For WOM 230 / DRA 230 see Drama department course descriptions.

# Courses Offered on an <br> Irregular Basis 

## SOC 155 Sociology of Sport 3-3-0

A theoretical and empirical introduction to the social organization of sports and how they are mediated.
SOC 215 Culture, Ethnicity and Aging 3-3-0
This course is designed to raise an awareness of aging in relation to culture and ethnicity. Concepts and theories of culture, aging and group interaction understood within a Canadian perspective will be provided in addition to sociological examination of class, gender and race.
SOC 217 Social Policy of Aging
3-3-0
This course will study the content, the interpretation and impact of laws affecting elderly and will examine the evolution of social policies and programs in the province of Quebec and in Canada. It will analyse the principles that the state follows to determine its implication in the field of social and health services to the aging population. The evolution of social policies and programs, the current configuration of governmental resources, community resources, and natural networks will also be examined.
SOC $220 \quad$ Work and Leisure
3-3-0
Industrial and "post-industrial" societies, especially Canada, are examined within a world-system framework. The focus is on power dynamics, contemporary and theoretical issues, involving workers, professionals, owners and consumers.
SOC 232 Sociology of Criminal Justice
3-3-0
An overview of the criminal justice system from initial contact with the police through to arrest, prosecution, disposition, incarceration, and release to the community. Emphasis is on the role of the police, prosecution, courts, and corrections with a consideration of moving towards alternative approaches to justice.
SOC 281 Communications Methods 3-3-0
Research in the areas of interpersonal, organizational and mass communication. Methods particular to communications studies are examined and applied.

## SOC 293 Visual Sociology 3-3-0

We live in cultures which are saturated with digital information and new media. This course engages with major thinkers who study the use of photographs, film, and video to understand society. The course is organized around a series of ideas and problems involving intersections between theory and practice.

SOC $295 \quad$ Social Inequality
3-3-0
This course addresses concepts of social and cultural sustainability. Key questions concerning the environmental impacts of social organization as well as options for change will be considered.

SOC 301 The Response to Marx
3-3-0
This course examines the response to Marx throughout the 20th and 21st century. In particular, the course examines how developments in linguistics, theoretical reconceptualization's of power, and new understandings of science, have problematized Marx's work. By considering the relative strengths and weaknesses of such approaches, the course prepares students to gauge the continued relevancy of Marx's insights.
Prerequisites: SOC 222
SOC 308 Formal Organization
3-3-0
The institutionalization and legitimation of power and decision-making processes. Special emphasis is given to innovation and deviance in formal organizations.
Prerequisite: Students should have 9 credits in Sociology or permission of the instructor.
SOC 381 Media and the Environment 3-3-0
This course examines processes of technologically mediated interaction at the macro-sociological level. Trends and structures of mass culture and communications are examined in relation to how we relate to nature.
Prerequisite: Students should have 9 credits in Sociology or permission of the instructor

SOC 395 Advanced Theories of Social Sustainability 3-3-0
Advanced seminar on the dynamics of global and local relationships regarding the nature of sustainable societies.
Prerequisite: Some background in the study of ecological and economic issues are strongly recommended

## WOM 120 Women and the Law <br> 3-3-0

This course provides a comprehensive study of the political and legal development of the status of women in Canada, by way of: feminist theory, the division of labour, political culture and human rights. The objectives include an appreciation and understanding of feminist political theory and general principles of legal jurisprudence.

## Sports Studies

## Faculty

## Nicolas Berryman,

B.Ed. (Montreal), M.Sc. (Montreal),

Ph.D. (Montreal)
Chair of the Program
Angela Pratt,
B.A. (Campbell University), M.A. (U.

North Carolina - Chapel Hill), Ph.D.
(U. Tennessee - Knoxville)

Rafael Tedesqui,
B.A. (Faculdade Ruy Barbosa), M.A. (Ottawa), Ph.D. (Ottawa)

Maxime Trempe,
B.Sc. (Montreal), Ph.D. (Montreal)

## Objective

The Sports Studies Program at Bishop's provides an intensive study of sport and exercise in society with a primary focus on three themes: Athletic Development, Sport Business, and Exercise and Health. The Sports Studies Program and its courses belong to the Division of Social Sciences at Bishop's. Sports Studies is offered as both Major (with a specialized concentration) and Minor programs. The programs are general Bachelor of Arts degrees, designed to encourage students to develop liberal education competencies while acquiring in-depth knowledge in at least one area of specialization. The programs also provide opportunity for practical experiences.

## Program Outcomes

After graduation, students will be qualified to work in the field of athletic development (e.g., as a physical trainer, coach, performance analyst, or member of a support team), in the management business of sport (e.g., administrator of a provincial/ national sport organization, municipal leisure department, sport centre, or professional team), or to pursue additional studies in a health-related discipline (e.g., physiotherapy, athletic therapy, public health, etc.).

## Sports Studies Major (48 credits)

MAJSPO
The Major in Sports Studies is a program of 48 credits ( 16 courses) divided into core courses ( 27 credits) and concentration courses ( 21 credits: see table below). At the time of their choosing during their Bachelor degree, sports studies students will have to "declare" at least one of the three possible concentrations and complete its requirements. Completing two or all three concentrations is possible, yet optional.

## Notes:

1) Students wishing to complete 2 or 3 concentrations in Sports Studies must note that SPO 401, SPO 402, and SPO 411 will count as optional courses in only one concentration.
2) Students completing the Business and Society concentration may be eligible to combine their program with one offered by the Williams School of Business (WSB). In each case of a "double" program with the WSB, the following rule will apply to the Sports Studies Business and Society concentration in Sports Studies:
All required (i.e. mandatory) business courses will NOT "double" count in the double program. That is, no Business courses required in the WSB program will count within the "optional" credits list of the Sports Studies Business and Society Concentration.
3) Students completing the Athletic Development concentration of the Sports Studies Major will have the possibility to apply for a recognition of achievement via Sports-Québec to obtain a coaching certification (NCCP modules). More information can be obtained by contacting the Chair of the Sports Studies program.

## Electives

Bachelor Degree programs at Bishop's require 120 credits. Quebec students with a DEC receive 30 advanced credits, allowing completion of the degree in three years. Therefore, a Sports Studies Major has 72 credits ( 42 for a Quebec student) of "free elective" courses. Students are encouraged to consider adding a minor from another discipline, or even a second major.

All Sports Studies students must meet the "Arts and Science" requirement of the University by completing at least one ( 3 credits) course offered by the Division of Natural Sciences and Mathematics. Popular options among Sports Studies students are BIO 131, BIO 233, and EXS/BIO 433.


## List of Courses

EXS 111 Motor Learning and Control
3-3-0
In this introductory course, historical and contemporary theories related to motor learning and control will be presented. Through a series of lectures, workshops, and directed reading, this course will explore the neural basis of movement production, the information processing capacities of the brain, as well as the formation of procedural memory. At the end of the course, students are expected to be able to evaluate the effectiveness of different intervention strategies in the context of skill development.
Note: EXS courses do not fulfill the "Arts and Science" requirement for students in the Divisions of Social Sciences or Humanities
EXS 117 Active Lifestyle, Fitness and Health
3-3-0
The Active Lifestyle, Fitness and Health course is designed to explore, through a series of lectures and workshops, the scientific principles relating to physical activity, exercise, fitness and health in asymptomatic populations from different age groups. At the end of the course, students are expected to understand the dose-response relationship between a variety of physical activities (e.g. Aerobic and resistance training, leisure activities, etc.) and different fitness outcomes (e.g. Body composition, muscle strength, cardiorespiratory fitness, etc.). Moreover, students will be exposed to a mechanistic approach to understand how fitness is associated with long-term health and longevity. Liberal Education Competencies: Quantitative Reasoning (Introductory), Critical Thinking (Introductory), Information Literacy (Introductory).
Note: EXS courses do not fulfill the "Arts and Science" requirement for students in the Divisions of Social Sciences or Humanities
EXS 127 Introductory Exercise Physiology
3-3-0
This course explores concepts in Exercise Physiology, with applications in Sports Medicine. The student will be challenged to apply basic knowledge of human anatomy and physiology to exercise, training and sports. Adaptation of body systems to exercise, injury and reconditioning will be studied. Basic principles of biomechanics and exercise will be explored. The course will consist of lectures, presentations, discussion periods, and demonstrations.
Note: EXS courses do not fulfill the "Arts and Science" requirement for students in the Divisions of Social Sciences or Humanities
EXS 227 Fitness Assessment in Healthy Populations 3-3-0
This course is designed to provide general guidelines with regards to fitness assessment in healthy populations. Through a series of lectures and workshops (fitness room), students will be exposed to the scientific principles underlying fitness assessment including aerobic and anaerobic energy systems, muscle strength, body composition and gross motor skills. At the end of the course, students are expected to be able to understand different tests and how to apply them with healthy populations. Students will also be asked to develop a critical thinking in order to better appreciate the available scientific literature.
Note that students who successfully completed SPO 406 in 2015 or 2016 may not receive credits for EXS 227.
Prerequisite: EXS 127 Introduction to Exercise Physiology
Note: EXS courses do not fulfill the "Arts and Science" requirement for students in the Divisions of Social Sciences or Humanities

## EXS 228 Functional Anatomy, Injury Prevention and Treatment in Sport

3-3-0
This course explores topics in functional anatomy relating to sports injuries and their treatment. Mechanisms of musculoskeletal injury will also be presented with a prevention perspective. Through lectures and workshops on basic human anatomy, students will examine how body parts and systems are involved during movement production. This course will provide hands-on opportunities through demonstrations, small group discussions and practical work. Liberal Education Competencies: Oral Communication Skills (Intermediate), Problem Solving (Intermediate).
Prerequisites: EXS 127 Introduction to Exercise Physiology or BIO 233 Human Anatomy
Note: students may not earn credit for both EXS 228 and EXS 328. EXS courses do not fulfill the "Arts and Science" requirement for students in the Divisions of Social Sciences or Humanities
EXS 231 Nutrition for Sports and Exercise 3-3-0
An introduction to the principles of sports nutrition. Application of these principles to various contexts: exercise, fitness, as well as competitive sports environments. Topics include energy requirements for exercise and performance, both for recreational and elite athletes; carbohydrate, protein, fat and micronutrient requirements; carbohydrate and fluid intake prior to, and during exercise; nutrition for post-exercise/performance/injury recovery; dietary supplements; weight loss
and "making weight" in sport; contemporary issues.
Prerequisites: EXS 117 Active Lifestyle, Fitness and Health or EXS 127
Introduction to Exercise Physiology or BCH 101 Introduction to Nutrition or BIO 233 Human Anatomy
Note: EXS courses do not fulfill the "Arts and Science" requirement for students in the Divisions of Social Sciences or Humanities
EXS 301 Health and Exercise Science
3-3-0
This course examines the relation and links between exercise and health. Using epidemiological studies, students are exposed to the role of physical activity on morbidity and mortality. Primary and secondary health-risk factors are examined relative to the influence physical activity has on them and one's quality of life. Prerequisites: EXS 127 Introductory Exercise Physiology and a statistics course: SOC 111, PSY 213, BMA 140, or PHY 101.
Note: EXS courses do not fulfill the "Arts and Science" requirement for students in the Divisions of Social Sciences or Humanities
EXS 317 Biomechanics of Human Movement 3-3-0
This course provides an introduction to the biomechanics of human movement and kinesiology. In particular, the kinematics and kinetics of the musculoskeletal system are studies. The course teaches concepts and techniques of analysis, with practical examples taken from sports and exercise, gait analysis, physical rehabilitation, ergonomics and more.
Prerequisites: EXS127 Introductory Exercise Physiology or BIO 233 Human Anatomy
Note: EXS courses do not fulfill the "Arts and Science" requirement for students in the Division of Social Sciences and the Division of Humanities
EXS 327 Athletic Performance and Development
3-3-0
This course explores the many factors influencing athletic performance and its development. Specifically, students will be exposed to the scientific principles of athletic training. Topics will include: power and endurance training, strength training, recovery strategies, field and laboratory tests, periodization of training. The course will consist of lectures, presentations and experiments.
Prerequisites: EXS 227.
EXS 433 Advanced Exercise Science
3-3-0
This course examines selected topics in Exercise Physiology. Through traditional lectures, directed readings, seminars, and case studies, students will study short-term and long-term adaptations to exercise. We will also examine the scientific principles underlying sports-related topics such as optimizing exercise performance, injuries, and injury repair.
Prerequisite: EXS 327 or BIO 336
Note: See BIO 433. Students may not take this course for credit if they have received credit for BIO 433.
SPO 101 Introduction to Sports Studies and the Workplace 3-2-1 This course provides a general introduction and overview of the field of sports studies. Through a series of case studies, readings, simulations, presentations, written reports and reflections, students will be exposed to the role of different sport specialists in our society and the ways in which they practice their profession. Specifically, this course will explore professions such as: fitness and personal trainer, varsity coach, sports injuries therapist/physiotherapist, sports nutritionist, sports facilities manager, municipal parks and recreation planner/manager, sports journalist, kinesiologist, professional athlete, and more. Effective goal setting and career planning will also be addressed as well as current issues in Sports Studies. Note: This course is restricted to students majoring in Sports Studies and is normally completed within the first thirty credits
Co-requisite: ILT 141
ILT 141 Information Retrieval and Evaluation Skills for the Social Sciences (Lab)

1-0-1 (Not mandatory unless indicated)
The objective of this laboratory course is to introduce students to the skills necessary to effectively complete their research assignments, including the correct use of library resources, such as the online catalogue, periodical indexes, and other relevant databases. Other areas of study include the identification of key terms for effective searching, productive use of the internet, and the critical evaluation of retrieved resources. Academic integrity, plagiarism, and the correct citation of print and online sources are also covered. Taught in conjunction with a researchbased course, the specific resources relevant to research in the Social Sciences are introduced, and the students retrieve the material necessary to complete the essays for their particular course. The course is taught in the library's electronic classroom, and each week the students are given the opportunity for practical experience.

SPO 155 Sociology of Sport $\quad$ 3-3-0
A theoretical and empirical introduction to the social organization of sports and how they are mediated.
Note: See SOC 155. Students may not take this course for credit if they have received credit for SOC 155 .
SPO $170 \quad$ Social Media and Sport
3-3-0
Social media is now an integral component of the communication strategy of sporting organizations. More than just a marketing tool, social media facilitates a dialogue between organizations and their targeted audience. This reciprocal communication is however complex as it is performed in an ever changing environment: the tools and good practices of today may become obsolete tomorrow. This course is designed to introduce students to current social media theories and their applications in sporting contexts. Liberal Education competencies: Quantitative reasoning (Introductory), Written Communication (Introductory).
SPO 201 Sports, Culture \& Society $\quad$ 3-3-0
An interdisciplinary course focusing on the impact of sport on society. Topics include history and philosophy of sport, sport in the ancient world, its relationship to social identity, social hierarchy, media, film, popular culture, business and our economy.
SPO 211 The Theory of Coaching 3-3-0
The aim of this course is to explore the fundamentals of athletic coaching. Through a series of lectures, presentations and workshops, students will be exposed to the theoretical elements that contribute to successful athletic coaching. Topics will include: teaching and learning theories, planning a practice, designing a sport program, coaching and leading effectively.
Prerequisite: SPO 201.
$\begin{array}{lll}\text { SPO } 212 & \text { Applied Sport Analytics } & \mathbf{3 - 3 - 0} \\ \text { Affordable and widely distributed technological tools such as cameras, }\end{array}$ Affordable and widely distributed technological tools such as cameras, accelerometers, and smartphones now allow the recording of an overwhelming quantity of information related to individual athletic abilities and/or team performance. With such an abundance of quantitative information, contemporary challenges reside in our capacity to analyze and interpret this data in a meaningful way. Through a series of lectures and workshops, students will be exposed to modern trends in sport analytics as well as tools offering efficient ways to analyze and visualization data. Liberal Education Competencies: Problem Solving (Introductory), Critical Thinking (Intermediate), Quantitative Reasoning (Advanced).
Prerequisite: SOC 211 or PSY 213 or BMA 140 or PHY 101
SPO 270 Sporting Events Organization
3-3-0
This course is designed to help students develop the skills and acquire the knowledge required to organize successful sporting events such as tournaments, championships, and conferences. Through lectures, workshops, and case studies, students will learn about the theories supporting sporting events organizations and will have the opportunity to apply these concepts to overcome real-life challenges. Topics related to budget planning, human resources, material and equipment availability, transport, lodging and communication strategies will be discussed.
SPO 280 Sports Centre Management and Recreation Planning 3-3-0
This course is designed to help students develop the skills and knowledge to effectively manage a sports centre as well as design a comprehensive and economically sustainable recreation plan for a community. Through lectures, workshops, and case studies, students will learn about the theories and bestpractices supporting successful management in a sport-specific context while also reviewing modern initiatives favouring participation in sport programs. Topics related to resource management, program design for various populations, marketing strategy, and continued participation in sport programs will be discussed.
SPO 301 Athletes \& Society
3-3-0
An interdisciplinary course focusing on the social implications of professionalizing sport. Topics include the role of media in professionalizing sport, its effects on amateur athletics, technology and sports, the proliferation of drugs in sport, the business models of sports professionals.
Prerequisite: SPO 201.

SPO 303 Advanced Seminar in Athletic Development /
Exercise and Health
3-3-0
This seminar is an advanced directed study in specialized areas of athletic development and health. Using scientific articles published in peer-reviewed journals, selected topics are presented and critically discussed in a small group format led by students. The content of this course will explore a variety of issues and may vary year to year. Liberal Education Competencies: Oral Communication (Advanced), Quantitative Reasoning (Advanced), Critical Thinking (Advanced). Prerequisites: SPO 201 and SPO 212 and ILT 141
Note: Students may earn credit for only one of the following courses: SPO 303, SPO 304, SPO 403
SPO 304 Advanced Seminar in Sports Business and Society 3-3-0 This seminar is an advanced directed study in specialized areas of sports business and society. Using articles published in peer-reviewed journals, selected topics are presented and critically discussed in a small group format led by students. The content of this course will explore a variety of issues and may vary year to year. Liberal Education Competencies: Oral communication (Advanced), Quantitative Reasoning (Advanced), Critical Thinking (Advanced).
Prerequisites: SPO 201 and SPO 212 and ILT 141
Note: Students may earn credit for only one of the following courses: SPO 303, SPO 304, SPO 403
SPO 311 Long-term Athlete Development 3-3-0
Developing Olympians and professional athletes is a complex endeavor requiring National Sport Organizations to develop a structured, large scale, and multistage plan. This plan must include initiatives to ensure that children are given the opportunity to sample a variety of sporting activities in their early years, develop holistically, and ultimately remain active for life. In this course, students will examine the Long-Term Athlete Development model and its implication for the design of sporting programs. Persistent myths regarding athletic development will also be presented concomitantly with recommendations formulated by the scientific community. Liberal Education Competencies: Oral Communication (Intermediate), Quantitative Reasoning (Advanced), Critical Thinking (Advanced) Prerequisites: SPO 211 or Permission of instructor
SPO 321 Personality and Expertise Development in Sport 3-3-0
This course examines the relationship between personality and the development of expertise in sports. We will discuss which and how personality characteristics may facilitate learning, training, and talent development in sport. We will engage with theoretical, research, and applied issues in the area through lectures, discussions, debates, projects, and presentations. By the end of the course, students will have an understanding of different personality characteristics that distinguish individuals and will have applied critical thinking in assessing the relevant literature to identify which personality characteristics are conceptually and empirically related to expertise development in sports.
Prerequisites: SPO 201
Note: Students who successfully completed SPO 407 may not receive credits for SPO 321
SPO $370 \quad$ Public Relations in Sport 3-3-0
Public Relations in Sports defines and examines the role of public relations (PR) in the sport industry. Through hands-on activities, lectures, readings, group projects and guest speakers, this course will focus on how sporting organizations and athletes manage their relationships and reputations with internal and external stakeholder groups, including media, community, fans, donors, corporate partners, and governing bodies. Students will analyze management issues, crises, and legal, ethical, and sociological issues that are associated with PR in the sport industry. Students will also practice technical skills associated with PR in sport, such as writing press releases, pitching stories, and conducting press conferences. Liberal Education Competencies: Oral and Written Communication Skills, Creative and Adaptive Thinking, Social and Cultural Literacy, Ethical and Moral Reasoning.
SPO 401 Experiential Learning $\quad \mathbf{3 - 1 - 1 0}$
The aim of this course is to integrate knowledge with a practical component. Although the content focus changes from year to year, the aim of the course is to expose students to the application of what they have learned. The course will mix seminars with practical placements. Topics may include: Marathon running, coaching, assisting in a community sports program, developing exercise programs in hospitals, homes for the aging, convents, or some other care-giving institution. Prerequisite: SPO 301.
Taken in the final 30 credits of the student's program.

SPO 402 Independent Study $\quad \begin{aligned} \mathbf{3 - 3 - 0} \\ \text { Studen }\end{aligned}$
Students are expected to design and carry out research in an area related to Sports Studies. This can be original research, the development of a case study, or a program evaluation.
Prerequisite: SPO 301
Taken in the final 30 credits of the student's program.
SPO 403 Advanced Seminar in Sport Studies
3-3-0
This seminar is an advanced directed study in specialized areas of sport and recreation. Selected topics are presented and critically discussed in small group format. The content of this course will explore a variety of issues and may vary year to year.
Prerequisite: SPO 301 and one of: SOC 211, PSY 213, BMA140 or PHY 101
Only open to students in their final year (last 30 credits).
SPO 407 Special Topics in Athletic Development 3-3-0
A lecture/seminar course offered by regular and visiting faculty on topics related to athletic development. Topics covered will be dependent on the research interests and expertise of the faculty member instructing. The course will be offered on an occasional basis. Liberal Education Competencies will be developed according to the special topic. However, considering it is a 400 -level course, it is expected that an advanced level of competency will be acquired at the end of the semester. Prerequisites: Subject to change depending on topic taught. Please contact the Chair of Sports Studies.
SPO 408 Special Topics in Sports Business and Society 3-3-0 A lecture/seminar course offered by regular and visiting faculty on topics related to sports business and society. Topics covered will be dependent on the research interests and expertise of the faculty member instructing. The course will be offered on an occasional basis. Liberal Education Competencies will be developed according to the special topic. However, considering it is a 400 -level course, it is expected that an advanced level of competency will be acquired at the end of the semester.
Prerequisites: Subject to change depending on topic taught. Please contact the Chair of Sports Studies.

## SPO 409 Special Topics in Health and Exercise

3-3-0
A lecture/seminar course offered by regular and visiting faculty on topics related to health and exercise. Topics covered will be dependent on the research interests and expertise of the faculty member instructing. The course will be offered on an occasional basis. Liberal Education Competencies will be developed according to the special topic. However, considering it is a $400-\mathrm{level}$ course, it is expected that an advanced level of competency will be acquired at the end of the semester. Prerequisites: Subject to change depending on topic taught. Please contact the Chair of Sports Studies.

## SPO 411 Sports Centre Practicum 3-3-0

This course provides an experiential learning opportunity at the John H. Price Sports and Recreation Centre on campus, and is aimed at introducing students to the practice of fitness training and mentoring, and training in various sports and recreational/fitness activities. Students spend up to $10 \mathrm{hrs} /$ week ( $100+$ hours for a semester), volunteering under the close supervision of a member of the staff of the Sports Centre. An outcomes report of the practicum will be expected. Enrolment will be limited and only senior students in good standing (at least $70 \%$ cumulative average) will be eligible.

## Prerequisites: Permission of instructor

## SPO 416 Knowledge Mobilization in Sports Studies 3-3-0

While possessing sound theoretical knowledge is crucial to lead a team or an organization, the ability to communicate efficiently is of the utmost importance to positively influence the behavior of others and their decision-making. In this course, knowledge mobilization tools and strategies will be presented to allow students to communicate key scientific information to diverse audiences. Through lectures, seminars, and mostly workshops, students will explore a variety of topics related to the three concentrations of the Sports Studies program (Business and Society, Athletic Development, Health and Exercise) and will be invited to present the results of their investigation during the annual Congress of Sports Studies. Liberal Education Competencies: Oral and Written Communication Skills (Advanced), Problem Solving Abilities (Advanced), Information Literacy Skills (Advanced), Creative Thinking (Advanced), Social Confidence and Inter-personal Competence (Advanced)
Prerequisites: ENG 116 and SPO 303 or SPO 304

## Electives of interest

BCH 101 Introduction to Nutrition
BIO 131* Human Body in Health and Disease
BIO 233* Human Anatomy
BMG 214 Intro. to Entrepreneurship: New Venture Creation
BMG 324 Management of Innovation
BMK 362 Sport Marketing
CLA 130 Sports and Games in the Ancient World
ECO 224 Sports Economics
ENG 296 Sports Writing
ESG 264 Outdoor Recreation
HIS 267 History of Sports in Canada
PBI 217 $\dagger \quad$ Motivation and Emotion
PBI 275 $\dagger \quad$ Health Psychology I
PBI 276 $\dagger$ Health Psychology II
PBI $327 \dagger \quad$ Psychology of Nutrition
POL 213 Canadian Sport System and Policy
POL 230 The Politics of Sport
PSY 203 $\dagger$ Cognition and Motivation in Sport
PSY $204 \dagger$ The Social Psychology of Sport and Exercise
PSY $277 \dagger \quad$ Physical and Mental Health
REL 209 Sports and Religion
SOC 155 The Sociology of Sport
SOC 219 Sociology of the Body
SOC $220 \quad$ Work and Leisure
SOC 307 Sociology of Health
*may receive credit for only one of BIO 131 and BIO 233
?these courses all require PSY 101
and/or PSY 102 as pre-requisites.
Note: Some of these courses are only offered on an irregular basis

## Graduate Programs

## Overview

The University offers graduate degrees in Education (MA, MEd), Computer Science (MSc), and Physics (MSc) and graduate Certificates in Management, Brewing Science, and a graduate level Micro-program in Climate Change.

## Admission Requirements

## Master of Education (MEd) and Master of Arts in Education (MA)

## General Admission Requirements

- have completed a B.Ed. or related degree at a recognized university with an average of at least $75 \%$;
- normally have at least two years of relevant educational experience (teaching or related professional experience).


## Required Supporting Documents

- 2 references using the School of Education Reference Form.
- Proof of English proficiency. All applicants must submit proof of English proficiency. Consult the English Language Proficiency Requirements document to determine what, if any, supplementary documents you must provide.
- Copy of most recent university transcript.
- Letter of intent outlining why you believe you are a good candidate for graduate studies at Bishop's University.
- Your curriculum vitae

MA applicants only: One-page description of your research interests, including area of interest, initial research questions, approach, possible resources required, and an approximate time line for completing the program.

Copy of personal identification document(s). Consult the Personal Identification Documents page to determine what document(s) you must provide.

## Graduate Certificates in Education

## General Admission Requirements

- have completed a B.Ed. or relevant degree at a recognized university, normally with an average of at least 75\%;
- have at least two years of relevant experience (teaching or related professional experience); such experience will be taken into account as we consider admissions.


## Required Supporting Documents

- 1 reference letter of reference addressing academic ability, qualifications and experiences, and how this certificate will benefit your professional learning.
- Proof of English proficiency. All applicants must submit proof of English proficiency. Consult the English Language

Proficiency Requirements document to determine what, if any, supplementary documents you must provide.

- Copy of most recent university transcript.
- Personal statement illustrating experience working with students and reason(s) for seeking admission to the program.
- Your curriculum vitae


## Master of Science (MSc)

## General Admission Requirements

- Completed undergraduate degree in a related field with high academic standing
- Proof of English proficiency. All applicants must submit proof of English proficiency.


## Computer Science (Thesis option)

The minimum requirements for admittance to the Master's program are an undergraduate degree with a major in Computing Science or equivalent, and a high upper-second class standing.

Candidates with high academic standing in an undergraduate degree other than computer science, who have some computer science background either academic or professional, may be admitted as graduate preparatory students. Preparatory students will be asked to complete up to one year of undergraduate courses to enhance their background.

In addition to academic performance, a combination of factors is taken into consideration in assessing the eligibility of a candidate for admission into graduate programs. One important such a factor is the availability of a faculty member competent and willing to supervise the academic program of studies and research of the candidate; a candidate will not be admitted to the program under any circumstance unless such a faculty member exists. Other factors include the performance of the candidate and the assessment provided by his/her referees as a measure of the likelihood that the candidate can successfully complete the course of studies and research.

## Computer Science (Project Option)

The minimum requirements for admittance to the program are an undergraduate degree with a major in Computing Science, Information Technology, Computer Engineering, Electrical Engineering, Mathematics, Physics, or equivalent, as well as a $70 \%$ standing.

Candidates with insufficient academic background in Computer Science may be admitted as graduate preparatory students and will be asked to complete up to one year of undergraduate courses to enhance their background.

## Physics (Thesis-based)

The program is open to graduates of any university of recognized standing who have obtained at least a Bachelor's degree with honours with a Class II standing (GPA of $3 / 4$ or its equivalent). An applicant who has followed a combined program (e.g., majors in math and physics), must have obtained at least a Class II
standing in their physics courses. Applicants who do not satisfy these requirements may, with the permission of the University, be admitted to a qualifying year to bring their standing up to that of an honours degree. Alternatively, the department may require students to do additional courses to those that are considered mandatory to meet the minimum requirements. Even if MSc applicants meet the minimum requirements, the department is not obligated to accept applicants based on the availability of supervisors, financial considerations, ability to offer the necessary courses, or the ranking of more qualified candidates.

## Application procedure

The application procedure for our graduate degrees is the following two-step process:

- Pre-apply by completely filling in the departmental form. Note that the form is different for the two options (coursebased and thesis-based). If the form contains all the pertinent information then you will receive from the department a fairly accurate evaluation, which in most cases indicate that your official application will be successful. Pre-applications are free of charge.
- Once you receive a positive evaluation from the department you must go to the Bishop's on-line application system and submit an official application (fees apply) in order to be granted official admission by the Admission Office.
Note that the two steps above can also be completed at the same time. However, in this case the application fees will be charged irrespective of the departmental decision.


## Micro-program in Climate Change

The basic entry requirement will be an undergraduate degree in any field from a recognized university with at least a B standing in the final two years of study. There are no specific pre-requisites, but students will need to be comfortable with basic mathematical and scientific concepts.

## Graduate Certificate in Brewing Science

To quality for enrolment, students must hold a B.Sc. in Biochemistry, Biology, Chemistry, or another discipline relating to one or more of the three (e.g. Chemical or Biological Engineering) and a minimum graduating average of $60 \%(\mathrm{C}+)$.

This program has a limited enrolment.

## Application procedure

The application procedure for our Graduate Certificates and Micro-program is the following:

1. Complete the application form.
2. Provide a copy of all of the following:
a. A statement of interest, no longer than 400 words in length, indicating why you want to be enrolled in the program and what you hope to gain from it
b. An official copy of all university transcripts
3. Pay the application fee by:
a. Cheque payable to Bishop's University
b. Credit card in person or by telephone (MasterCard or Visa accepted)
4. Submit the complete application package to the office of Jean Porter (Divisional Secretary/Natural Sciences) in one of the following ways:
a. In-person at the Divisional Secretary's office during business hours: Lennoxville Campus Johnson Building, Room J-117A 2600, rue College Sherbrooke QC J1M 1Z7
b. Or by mail: Bishop's University c/o Jean Porter Divisional Secretary/Natural Sciences 2600, rue College Sherbrooke QC J1M 1 Z7

## Regulations for Graduate Studies in Education (MA, MEd)

To qualify for the degree of Master of Education or Master of Arts in Education, a candidate must be a graduate of this or another approved university and must complete 45 credits of graduatelevel work in Education.

Courses leading to these programs are offered year round, on the Bishop's campus and possibly at off campus locations, via technology.

## General Academic Regulations

1. Applicants may be admitted to one of the following: the Master of Arts in Education or the Master of Education program.
2. M.Ed./M.A. students who receive a grade lower than $70 \%$ have failed the course and are not permitted to continue in the program without formal permission of the School of Education's Review Committee.
3. Students enrolled in either the M.Ed. or the M.A. who have not registered for any course during a period of more than 24 months are deemed to have withdrawn. They may reapply for admission to the program, subject to the same procedures and conditions as new applicants.
4. Full-time status for graduate level studies is defined to be 9 credits or more.

## Transfer Credit

A candidate for the Master of Arts in Education or the Master of Education degree may, with the permission of the Dean of the School of Education, complete up to three appropriate courses (9 graduate-level credits) at another recognized institution. Candidates should obtain prior approval for such courses. Such courses may not be used to meet the requirements of core courses or projects, monographs, or theses.

## Regulations for Graduate Studies in Science (MSc)

The Division of Natural Sciences and Mathematics of Bishop's University offers a Master of Science degree (M.Sc.) program in the Departments of Chemistry, Computer Science, and Physics. Potential students are referred to the appropriate departmental section of this Calendar for specific program information.

## Admission

1. Completed applications will be forwarded to the appropriate department for evaluation. Recommendations for admission to a degree program are made by the department to the Dean. Final approval for admission is made by the Dean.
2. Advanced courses of instruction leading to the Master of Science degree are open to graduates of any university of recognized standing who have obtained at least a Bachelor's degree with Honours with Class II standing or its equivalent. An applicant who has followed a combined program must have obtained at least a Class II standing in the subject of the Masters degree.
3. Applicants who do not satisfy these requirements may, with the permission of the department concerned and the Dean, be admitted to a qualifying semester(s) or year to bring their standing up to that of an Honours B.Sc. degree.
4. Admission to graduate courses does not in itself imply candidacy for a graduate degree.
5. All information is processed through the Admissions Office.
6. These regulations for admission are minimum requirements. Additional requirements may be specified by departments, with the approval of the Division.

## General Regulations

1. Apart from any qualifying semesters, the minimum period of registration for the M.Sc. shall be one academic year of fulltime study, including research, or its equivalent in part-time study. This requirement must be met regardless of the amount of graduate work previously completed in any other program or at any other university.
2. The maximum time allowed for the fulfillment of the requirements for graduation shall normally be four years in the case of full-time students, excluding any qualifying or inactive semesters. For part-time students the course-work required for qualifying semesters (if any) and the regular credit requirements of the program must be completed at the rate of no fewer than 6 credits per year.
3. Students may choose to leave the program temporarily for one semester, but only with permission of their supervisor; these students shall be considered inactive for that semester. Such a one-semester leave of absence from the program will not normally be allowed more than twice.
4. Students must obtain a minimum of $65 \%$ in each required course. Courses may not be repeated more than once.
5. Each degree candidate will be assigned, by the department in which the thesis is to be submitted, to a supervisor who shall be a faculty member of the department and who will
be responsible for advising the candidate and directing his/ her research. Co-supervisors may also be assigned with the department's approval.
6. The course of study will be arranged by the supervisor. The subject of the thesis also requires approval by the supervisor.
7. The responsibilities of the students include: informing themselves of program requirements and deadlines, working within these deadlines, communicating regularly with their supervisors; and submitting annual progress reports to their supervisors and the Division.
8. Students may receive (limited) financial support from the University in the form of research assistantships, undergraduate marking, tutoring and/or laboratory demonstrating duties. Such support requires approval in writing from both the department and the Dean. Duties and remuneration will be clearly stated and in no case shall duties exceed ten hours per week on average.
9. All students in graduate courses or degree programs enjoy the protection of the University's policy and procedures on academic review and appeal (see pp. 21-24 of the University Calendar) and on research ethics (see the Vice-Principal for documentation).
10. A passing grade is $65 \%$ or better or " P " for pass. A grade less than $65 \%$ or " $F$ " is a failure.
11. Full-time status for graduate level studies is defined to be 9 credits or more.

## Supervision

1. It is the responsibility of the supervisor to monitor the progress of students throughout the graduate program, to ensure that all conditions of admission and requirements are fulfilled, to provide students with information on their program, and to advise them how to resolve problems which may arise during their program.
2. Thesis supervisors must be tenured or tenure-stream faculty or adjunct faculty. Sessional and contract faculty may co-supervise students with the department's approval. Emeritus Professors may co-supervise. In all cases, the department must ensure continuity of appropriate supervision of their graduate students.
3. Problems that cannot be resolved by discussion between the student and the supervisor shall be referred to the Dean.
4. Information concerning sources of financial support and policies on obtaining same should be sought from the Dean.
5. Students must receive guidance and constructive criticism concerning their progress on a regular basis through the program, including regular meetings and/or e-mail communication with supervisors, attendance at research seminars, and appropriate responses to the student's annual progress report.
6. By April 15 of each year, M.Sc. candidates must submit to their supervisors a progress report covering both courses and research programs. This report must include the candidate's name, program and semester, a list of courses completed and their grades, a list of courses in which the candidate is registered, and a list of courses yet to be taken. A statement concerning the research work must include the title of the thesis
(or if this has not yet been decided, a general title of the project), a short outline of the work to its present state, including the amount of work done and the significant findings of the research, plus a statement of the work proposed for the future and a realistic estimate of the time required for its completion.
7. The supervisor will evaluate the annual progress report and grant a grade of "satisfactory" or "unsatisfactory". Copies of this graded report will go to the department concerned and to the Division. The department m ay compel a student to withdraw from the M.Sc. degree program in the event of an "unsatisfactory" grade on an annual progress report. Students have the right to have this decision reviewed, first by the Dean and then by the Academic Review Committee.

## Thesis Regulations

1. All M.Sc. students must make a satisfactory oral presentation and defense of their thesis before graduating. Three copies of the thesis of a degree candidate must be submitted, with the approval of the supervisor, to the Division at least two months in advance of the marks deadline of the semester in which it is to be defended.
2. The three copies of the thesis delivered to the Division must be accompanied by a letter from the supervisor informing the Division of the names of the two persons who have consented to act as examiners of the thesis (see Regulation 3). The secretary of the Division shall forward one copy of the candidate's thesis to each examiner with an appropriate covering letter.
3. The thesis shall be orally presented and defended before two examiners other than the supervisor, one of whom shall be an external examiner who is a specialist in the candidate's field of interest. The examiners shall be selected by the supervisor and department concerned, subject to the approval of the Dean. A thesis will be accepted only following approval of its defense by both examiners. A thesis may be returned to the candidate for revision on the advice of one or both examiners and subsequently re-defended (once only).
4. After the thesis has been defended and accepted, at least three copies shall be properly bound by the University at the candidate's expense, one for deposit in the Library, one for the retention of the department concerned and one for the supervisor. At the request of the candidate, a fourth copy maybe bound for his/her personal use.
5. Advice concerning the preparation and presentation of theses is to be provided by the supervisor and department concerned.
6. It is the responsibility of a supervisor to uphold and to transmit to students the highest professional standards of research and scholarship in the preparation of theses; to provide guidance in all phases of the student's research; to meet with their students regularly; to provide prompt feedback on submitted work, including drafts of the thesis; and to clarify expectations regarding collaborative work, authorship, publication and conference presentations which may result from the student's research.

## M.Ed. and M.A. in Education

## Program Overview

Certified teachers, educational administrators and those with a first undergraduate degree may make application to graduate programs leading to Master of Education (M.Ed.) in Educational Studies and Leadership, or a Master of Arts (M.A.) in Educational Studies (thesis).

Students in this program will further their scholarly and professional development as administrators, educational leaders, educators, and researchers, while engaging with the social, historical, cultural, and linguistic dimensions of education. Students will consider issues of power, diversity, gender, and marginalization in education. Studies may be based on sociological, historical, or linguistic foundations; they may draw on a variety of contemporary perspectives including comparative and international education, post-colonial theory and theories of decolonization, applied linguistics, sociolinguistics, discourse analysis, and critical theory.

Underlying each of these themes is the overarching theme of leadership in educational institutions and in other organizational, professional, and community settings where enhancing learning for the social, cultural, digital, and economic needs of the $21^{\text {st }}$ century is at the forefront.

Requirements for entrance into graduate programs in Education at Bishop's University are as follows.

Applicants for the M.A. and M.Ed. (full and part-time) must:

- have completed a B.Ed. or related degree at a recognized university with an average of at least $75 \%$;
- normally have at least two years of relevant educational experience (teaching or related professional experience).
NOTE: If your mother tongue is not English and you have not studied for at least three full years in English, you must submit TOEFL, IELTS, or other equivalent English language proficiency test results. Minimum scores in the School of Education for graduate studies are:
- TOEFL minimum score of 80 (Internet-based) with at least a score of 20 in each of the four components
- IELTS minimum score of 6.5 with at least a score of 6.5 in each of the four components


## Applicants for the graduate certificates should:

- have completed a B.Ed. or relevant degree at a recognized university, normally with an average of at least $75 \%$;
- have at least two years of relevant experience (teaching or related professional experience); such experience will be taken into account as we consider admissions.

NOTE: If your mother tongue is not English and you have not studied for at least three full years in English, you must submit TOEFL, IELTS, or other equivalent English language proficiency test results. Minimum scores in the School of Education for graduate studies are:

- TOEFL minimum score of 80 (Internet-based) with at least a score of 20 in each of the four components
- IELTS minimum score of 6.5 with at least a score of 6.5 in each of the four components


## Specific requirements for M.A. and M.Ed.

Applicants to both the M.Ed. and the M.A. must submit two references using the form provided on the Admissions website. Applicants to the M.Ed. must submit a CV and a letter of intent outlining why you believe you are a good candidate for graduate studies at Bishop's University. Applicants to the M.A. must submit a two-page description of their research interests, including area of interest, initial research questions, methodological approach (e.g. case study, classroom study), possible resources required (e.g. access to specialized computer technologies, special schools and/or populations), and an approximate time line for completing the program. Students applying to the M.A. also must name one or two professors from the School of Education who they believe will be possible supervisors. Because the resources of the School of Education are limited, potential students should be advised that the School reserves the right to refuse admittance to a student whose research interests do not coincide with those of existing faculty for supervision purposes, or if the resources required are not readily accessible.

It is recommended that students complete the program within six years. After six years all students who have not completed the program will be required to meet with the Dean of the School of Education to reassess their progress.

Full-time M.Ed. students who are registered but inactive for a period of one year will be withdrawn from the program and must reapply. Part-time M.Ed. students who are registered but inactive for a period of three years will be withdrawn from the program and must reapply. M.A. students who have not registered for a course or for their thesis for two years will be withdrawn from the program and must reapply.

## Specific requirements for the graduate certificates

Applicants should submit one letter of reference addressing academic ability, qualifications and experiences, and how this certificate will benefit their professional learning. They must also submit a personal statement illustrating experience working with students and reason(s) for seeking admission to the program. This certificate does not lead to teacher certification.

Application information and admission and program criteria for the graduate programs in Education are listed in the Admissions and Registration section of this Calendar.

## Programs leading to the Master of Education (M.Ed.) in Educational Studies and Leadership, or the Master of Arts (M.A.) in Educational Studies (thesis).

Graduate courses leading to the M.Ed. and M.A. degrees are normally offered during each of the following four sessions: Fall, Winter, Spring 1, and Spring 2.

## Course Offerings

In the M.Ed. and M.A. program, students pursue compulsory courses common to all students, in addition to some specific ones, depending on which program the student has opted for. Students who have completed graduate courses in Education at Bishop's University may be considered for advanced standing. The Admissions Committee of the School of Education may consider the transfer of credits from one of our existing certificate programs. Such transfer credits will only be considered for courses in which the grade received is at least $75 \%$. Practicum courses are not eligible for such transfers. A maximum of nine credits from another institution may be applied to the M.Ed. and M.A. program. For more details on the Master's of Arts program, please refer to the M.A. Handbook.

## Master of Education in Educational Studies and Leadership ( 45 credits - without thesis)

Research Module

6 compulsory credits

- GSE 510: Academic Reading and Writing
- GSE 516: Educational Research for Practice

Foundations courses
9 compulsory credits,
3 credits from:

- GSE 502: Educational Philosophies
- GSE 506: Globalization and Global Education
- GSE 540: Sociological Perspectives in Schooling

3 credits from:

- GSE 501: Psychology of Teaching and Learning
- GSE 523: Educational Neuroscience: Mind, Brain, and Teaching

3 credits from:

- GSE 503: Curriculum Explorations I
- GSE 574: Understanding Professional Development
- GSE 575: Educational Leadership Theories


## Elective Courses $\mathbf{3 0}$ credits

More detailed information about specific course choices is available from the School of Education.

# Master of Arts in Educational Studies (45 credits - with thesis) 

## Research Module

9 compulsory credits

- GSE 510 Academic Reading and Writing
- GSE 516 Educational Research for Practice
- GSE 518 Seminar in Research Methods


## Foundations courses

6 compulsory credits, 3 credits each from 2 of the 3 following courses:

- GSE 502 Educational Philosophies
- GSE 501 Psychology of Teaching and Learning
- GSE 503 Curriculum Explorations I


## Elective Courses 6 credits

More detailed information about specific course choices is available from the School of Education

## Thesis documents 24 credits

- GSE 705: Thesis Proposal (3 credits)
- GSE 700: Thesis (21 credits)


## List of Courses

## GSE 500 Selected Topics in Curriculum 3-3-0

This course has been designed to provide the student with the opportunity to examine recent developments in curriculum.
GSE 501 Psychology of Teaching and Learning 3-3-0
This course will examine ways to use the theories, principles and research methods of psychology to understand learning and to inform the teaching and curriculum processes. The implications of different theories of learning will be examined. Students will compare and contrast how the theories define knowledge and learning. Students are encouraged to explore in depth topics relevant to their practice.
GSE 502 Educational Philosophies $\quad$ 3-3-0
This course will examine the philosophical principles and theories that provide a foundation for education today. Through a critical review of philosophical perspectives, students will develop an understanding of the way in which these perspectives continue to shape current educational thinking and practice.
GSE 503 Curriculum Explorations I
3-3-0
This introductory course will examine curriculum as a socially constructed process. Students in the course will examine the principles and theories relating the various dimensions of the curriculum process: designing, planning, enacting and reflecting.

GSE 504 Curriculum Explorations II
This course is an extension of GSE 503, Curriculum Explorations I. Students will focus on using the knowledge acquired in GSE 503 and new knowledge constructed in GSE 504 to generate a curriculum design and the resources necessary to enact that design.
Prerequisite: GSE 503
GSE 505 Evaluation and Assessment 3-3-0
This course will focus on the role of evaluation and assessment of the learning process and will include an examination of their underlying principles. The practical implications of the school context on the learning process will be explored.

GSE 506
Globalization and Global Education
3-3-0
This course provides an overview and introduction to areas of research that inform the practice of global citizenship education. These include inter-disciplinary studies in globalization and education, transnational studies, postcolonial theory, citizenship education, social justice education, migration studies, and sociological and pedagogical approaches to education for social diversity. Students will engage current debates and implications of these for practice.
GSE 507 Origins of Modern Schooling
3-3-0
This course examines the trends and themes in educational history that have influenced and shaped contemporary school systems. The course will explore how schooling and concepts of education have changed over time, and will critically analyze the successes and failures of educational developments. Students will engage in historical thinking and research in order to understand how the educational past continues to impact education today.

GSE 508 History of Education Policy 3-3-0
This course explores the historical processes that have created current Canadian school systems, with a particular emphasis on Quebec. Through an analysis of public policy case studies, the course will assess the unfolding educational policy environment and how policymaking ideas and debates have impacted the current education landscape.

## GSE 510 Academic Reading and Writing

3-3-0
This course has been designed to facilitate students' ability to (1) read, synthesize and analyze academic articles, books and other primary source texts and (2) express their knowledge and ideas in a scholarly fashion using the conventions defined by academic journals. Different types of research articles will be examined and strategies for reading each type explored.
GSE 511 Educational Statistics
3-3-0
This course is an introduction to statistical analysis methods. Topics to be covered include means, standard deviations, variances, sampling distributions, hypothesis testing z-tests, t-tests, correlation/regression and, if time permits, Chi-squared tests. This course emphasizes a conceptual understanding of statistics and their application in educational research rather than mechanical calculation.
GSE 516 Educational Research for Practice 3-3-0
This course leads participants to consider the relationship between approaches to educational research, knowledge, and practice. Participants explore, in-depth, the epistemological positions and basic principles of action research and the importance of critical reflective practice for transformative education. Individual class projects are carried out, such that students in the M.Ed. Program will adopt an inquiry stance towards their practice, while students in the M.A. Program will deepen their understanding of the foundations of Educational Research.

## GSE 518 Seminar in Research Methods

3-3-0
This compulsory course in research in education for M.A. students is designed to help participants to evaluate and conduct research in education. The course includes topics such as the selection of a research topic and generation of research question(s); collection, analysis and interpretation of qualitative and quantitative date; presentation and evaluation of research; and a range of research designs.
Prerequisite: GSE 516
GSE 520 Selected Topics in Special and Inclusive Education 3-3-0 This course has been designed to provide the student with the opportunity to examine recent developments in special education.
GSE 521 The Exceptional Learner
3-3-0
This course in special education will examine the characteristics of learners with diverse special needs, including the psychological, medical and sociological aspects of the various exceptionalities and the various ways in which they are educated. The content of this course will be of relevance to administrators and regular classroom teachers as well as to special General educators. Participants in this course will critically examine the many approaches to facilitating learning for individuals with learning disabilities and other exceptionalities.
GSE 522 Special Topics in the Psychology of Learning 3-3-0
This course provides students an opportunity to further explore topics related to the psychology of learning.
Prerequisite or Co-requisite: GSE 501

GSE 523
Educational Neuroscience: Mind, Brain, and Teaching 3-3-0
This course will provide students with an introduction to educational neuroscience framed from an interdisciplinary perspective. This course will review recent research from neuroscience, psychology, and education and will provide a balanced perspective about the potential and limits of linking these disciplines. Students will acquire the skills and concepts needed to interpret basic neuroscience research in the context of a meaningful interdisciplinary question. The course will also investigate the different histories, philosophies, and epistemological lenses through which common problems in neuroscience, psychology, and education are approached. Topics such as bilingualism, reading and language, numeracy and arithmetic, cognitive control, emotion, and creativity will be addressed.
GSE 524 Behavioral Disorders
3-3-0
This course will examine multiple types of emotional problems and behavioral disorders challenging students in today's classrooms. Theories and principles explaining these difficulties as well as how to analyze patterns and see how problems develop will be explored. Students will critically explore methods for dealing with problem behaviors in the classroom.
GSE $530 \quad$ Selected Topics in Media Literacy
3-3-0
This course has been designed to provide the student with the opportunity to examine recent developments in media literacy. It will foster an expanded understanding of media and media technology, including the impact on our society and the shaping of individual and collective values and beliefs.
GSE 534 Selected Topics in Educational Theory 3-3-0
This course is designed to provide the student with opportunities to explore various theories of education. Specific topics will be chosen for each course by the professor.

GSE 535 Policy Analysis for Educators $\quad$ 3-3-0
This course will offer educators the opportunity to analyze public policy and the various settings typically associated with education policy making. Readings will introduce students to education policy debates, including the theoretical and ethical, as well as the political and economic, challenges facing policy makers and those impacted by education policy. Students will be guided through critical analyses of education policy, with a particular emphasis on the policies and related laws guiding the Quebec school system. Students will be given opportunities to consider the ways in which practitioners engage with policy, and how they can play a role in the making and reform of that policy.
GSE 540 Sociological Perspectives in Schooling 3-3-0
This course examines the role of schooling in society based in a comprehensive review of research in the sociology of education. Student will develop a comparative framework to analyze the competing agendas underpinning educational policy, curriculum development and a range of pedagogical practice in order to identify the forces associated with the changing landscape of public education in the 21st century (with particular forces in the forces of globalization and the neoliberal restructuring of the public sector).

## GSE 541 Colonialism, Education, and Decolonization

3-3-0
In this course, students will develop a comprehensive understanding of the ongoing history of settler colonialism in Canada and of imperialism and colonialism in the global context. This grounds an examination of the role of education in colonization and in the project of decolonization in a range of national contexts. This course responds directly to the calls for action issued in the 2015 final report of Canada's historic Truth and Reconciliation Commission on Indian Residential Schools and new curriculum on the history of IRS and treaty education subsequently introduced in every Canadian province.
GSE 550 Selected Topics in Educational Technology 3-3-0
This course has been designed to provide the student with the opportunity to examine recent developments in educational technology.
GSE 552 Technology in Education 3-3-0
This course will focus on the potential which technology offers for the enrichment of learning and teaching. Drawing on current research students will examine issues of appropriate effective integration of technology in the curriculum such as the need for value-added approaches. The course will focus on modern technologies including applications of e-learning.
GSE 553 Technology and the Role of the Educator 3-3-0
This course examines the role of the educator in an increasingly technological world. Modern advances in technology have seen a concomitant change in the role of the teacher from one who passes on knowledge to one who mentors students in developing their knowledge. Students become active in their educational activities. This course will examine theoretical perspectives on the role of the educator in a technologically-defined world and the implications for current and future practices. The students in this course will also learn how to create student-
centered applications of technology in the classroom, allowing students to make their own products and their own content.
GSE 559 Research in Educational Technology 3-3-0
This course has been designed to provide students with the opportunity to search and locate the literature relevant to their selected topics of interest. Students will acquire skills in conducting both electronic and hand searches. They will critically analyze the literature base related to one facet of educational technology and produce a scholarly, written review of that literature. This literature review will culminate in research questions, objectives, or hypotheses that align with the literature reviewed. This course is compulsory for students registered in the MA program with emphasis in educational technology and should be taken near the end of their program.
GSE $560 \quad$ Selected Topics in Literacy
3-3-0
This course allows students to examine research related to current issues in literacy learning and teaching. Specific topics vary from year to year to take advantage of the special expertise of the faculty.
GSE 561 Language and Literacy Studies 3-3-0
Through this course, students examine current trends, issues, theory and research in teaching and learning in the English language arts classroom. Topics include media literacy, critical literacy, multiliteracies, multicultural curricula, and language learning and teaching across the curriculum.
GSE 564 Learning to Write and Writing to Learn
3-3-0
This course is designed for teachers who are interested in exploring many different approaches to learning to write in different genres. Participants should be prepared to engage in a great deal of writing as the philosophy of the course is one that is grounded in the notion that "we learn to write by writing".
GSE $570 \quad$ Selected Topics in Educational Leadership and Administration

3-3-0
This course has been designed to provide the student with the opportunity to examine recent developments in educational leadership and issues related to educational administration.
GSE $571 \quad$ Principles of Educational Leadership 3-3-0 This course, designed for teachers and administrators interested in becoming effective leaders, is an introduction to the study of educational leadership. Participants in this course will be introduced to the theory and research literature on issues of leadership in general and school leadership in particular. Students will explore topics such as school-based management, invitational leadership, flexible leadership, professional collaboration and individual initiative.
GSE $573 \quad$ Creating and Leading Effective Schools 3-3-0
This course aims to inform practicing and aspiring school leaders about ways to mobilize a school staff toward greater effectiveness in reaching a joint mission. It examines current research and school improvement literature with a view to developing practical strategies for whole school assessment, evaluation and development.
GSE 574 Understanding Professional Development 3-3-0
This course will explore the many ways teachers develop as professionals, both individually and as members of educational organizations. Participants in the course will be involved in reading about and discussing topics such as the following: What knowledge is held by good teachers? What does teacher reflection contribute to development? What can be done by organizations to promote teacher learning and development? How are student learning and teacher learning related? What are the possibilities for designing professional development programs for teachers?
GSE 575
Educational Leadership Theories
3-3-0
This course is designed to provide students the opportunity to examine a set of educational leadership theories that have been or are currently used in school settings. Participants will be encouraged to critically examine the theories that are presented and explore the implication of using them in educational settings.
GSE 576 Teacher Leadership
3-3-0
Participants will explore the changing roles of teacher leaders and perspectives on teacher leadership. Participants will review relevant literature and will examine features of teacher leadership including teacher participation in institutional hierarchies and teacher involvement in shaping institutional cultures and acting as agents of transformation.
GSE 580 Selected Topics in Second Language Learning 3-3-0 This course has been designed to provide the student with the opportunity to examine recent developments in second language learning.

## GSE 581 Introduction to Linguistics for Language Teaching

3-3-0
This course is a survey of linguistic theory as it relates to second language teaching. Students are exposed to major themes in linguistics as a basis for the study of second language teaching and learning.

## GSE 582 Language Acquisition

3-3-0
The purpose of this course is to examine ways in which theories of language acquisition have implications for the teaching and learning of a second language. The course includes a study of important research in the field of language acquisition and its relevance to second language teaching.
GSE 584
Teaching English Grammar
3-3-0
This course provides an overview of the theoretical background for the teaching of grammar. It includes a review of major grammatical patterns of English, as well as a focus on learner errors and the design of material appropriate to the teaching of grammatical concepts.
GSE 585 Methods in Second Language Teaching I
3-3-0
This first course in methodology introduces the student to classroom practices in teaching English as a second language. It includes a historical overview of approaches to second language teaching. The course focuses on the selection of teaching material and classroom techniques for second language teaching.
GSE 586 Methods in Second Language Teaching II 3-3-0
The second course in methodology extends the content covered in Methods I. Classroom practice and development of curriculum resources are the major topics covered in this course.
Prerequisite: GSE 585
GSE 587 Assessment and Evaluation in
Second Language Teaching

3-3-0
This course includes an exploration of design strategies for effective assessment and evaluation procedures for second language teaching. It combines the theory of effective assessment with practical applications for the second language classroom.

## GSE 588 The Second Language Learner

 3-3-0This course focuses on a learner-centered approach to second language teaching. It emphasizes the importance of individual learner backgrounds, special needs of learners, individual learning styles and strategies, and cultural considerations in the teaching of English as a Second Language.

## GSE 589 Observation and Practice Teaching in Second Language Classrooms

6-3-0
This six-credit course involves the observation of experienced second language teachers in their classrooms, as well as peer observation of students in the course. Students will develop and teach lessons under supervision at both the primary and secondary levels. Students may observe and teach in adult classes.

## GSE 590

The Creative Process in Education
3-3-0
Students will explore the creative process as it affects and is affected by the relationship between the teacher and the learner. Students will engage in creative projects and monitor their own creative process. Through readings, discussion, and experiences with different media, students will learn to articulate and evaluate learning within a creative process framework.

## GSE 591 Studio Inquiry I

3-3-0
In this course students identify the content and the processes essential to their on-going studio performance. Students are expected to develop parallel inquiry into exhibitions, installations, performances, documentations, notation systems and related readings. Evaluation is based on workshop and seminar participation, studio performance and class presentations. This course may be continued as GSE 592.

GSE 592 Studio Inquiry II
3-3-0
GSE 593 Selected Topics in Art Education 3-3-0
This is a seminar course offering students the opportunity to study various aspects of art education. Specific topics vary from year to year to take advantage of the special expertise of the faculty.
GSE 594 Readings in Art Education
3-3-0
This is a seminar course in which students study selected texts to gain insight into formative notions and recurring issues in art education. Assignments include historical research questions arising out of an examination of personal experiences in the teaching and learning of art.
GSE 596
Art and Technology: an on-going dynamic
3-3-0
This course addresses the assumptions that underlie the discourse about art and technology. Technology has and continues to be used as a part of art, in the service of art, and as forms of art. Correspondingly each technological innovation in art raises a new set of practical, theoretical, and aesthetic questions that challenge theoretical underpinnings within art education. A review of some of the types
of technology-based art, with examples of work by some prominent artists, establishes the range of difficulties that accompany the introduction of new technologies into art and the effects of these new visual languages on discourses in art and art education.
GSE 599 Transformative Praxis 3-3-0
The intent of this course is to cultivate Action Research based experiences with a specific focus on social justice grounded themes and collaborative interaction with relevant community. Students are expected to work in tandem with and under the supervision of faculty members who are actively engaged in such fieldwork. In addition to spending at least four weeks in the field, students can anticipate completing preparative and culminating academic activities. The result of which is meant to encourage students and community members to creatively expand their own borders of transformative possibilities through the art of praxis.
GSE 630 Independent Study in Education
3-0-0
Students in an existing graduate program may be granted permission to pursue an independent study project under the guidance of a faculty supervisor on a topic in Education significant to their program. Topics must be approved by the Graduate Program Committee of the School of Education.
Pre-requisite: Permission of the Graduate Program Committee
GSE 700 Thesis 21 credits
Under the supervision of the School of Education thesis supervisor, the M.A. student conducts a research study, which is followed by completion of an academic document that must meet the standards of scholarship established by the appropriate research community.
Prerequisite: Successful completion of GSE 705: Thesis Proposal

## GSE 701F Monograph <br> 6 credits

This 6 -credit monograph, under the supervision of a mentor assigned by the School of Education, permits the student in the final stages of his/her program to use the knowledge acquired to inform the designing and composing of an original piece of scholarly writing. This document can take a variety of forms including a research report, a book, or a critical review of a body of literature. A successful graduate level monograph is an academic document that must meet the standards of scholarship established by the appropriate research community.
Prerequisite: Completion of all course requirements for the Master of Education degree with a concentration in Curriculum Studies or Educational Leadership, including GSE 706-Exit Project Proposal.

## GSE 702F Curriculum Studies Project <br> 6 credits

This 6-credit independent project, under the supervision of a mentor assigned by the School of Education, permits the M.Ed. student in the final stages of his/her program to draw on various appropriate and significant experiences and insights to inform the designing of a novel unit of study and to facilitate the inquiry into its enactment. Each project will seek to inform practice through a significant research component.
Prerequisite: Completion of all course requirements for the Master of Education degree with a concentration in Curriculum Studies, including GSE 706 - Exit Project Proposal.

## GSE 703F Educational Leadership Project

6 credits
This 6 -credit independent project, under the supervision of a mentor assigned by the School of Education, permits the M.Ed. student in the final stages of his/her program to draw on various appropriate and significant experiences and insights and to apply this knowledge to a real-life problem in educational management or leadership. The student starts with an analysis of the problem and the design of a plan of action (to be approved by the mentor). However, it is expected that each project will seek to inform practice through a significant research component.
Prerequisite: Completion of all course requirements for the Master of Education degree with a concentration in Educational Leadership, including GSE 706 - Exit Project Proposal.
GSE 704F Art Exhibition and Supporting Documents 6 credits The nature of the 6 -credit art exhibition and supporting documents will be determined through consultation between the student and the supervisor.
Prerequisite: Completion of all course requirements for the Master of Education degree with a concentration in Art Education, including GSE 706 - Exit Project Proposal.
GSE 705

## Thesis Proposal

3 credits
This 3-credit independent study, completed under the supervision of a thesis supervisor, leads to completion of a proposal, which is defended by the student prior to registration in the thesis. In addition to developing the proposal, the deepens understanding of research ethics and policies. Where pertinent to the proposed study, the student prepares ethics submissions. Prerequisite: Completion of course requirements for the Master of Arts in Educational Studies

GSE 706 Exit Project Proposal 3-3-0
Under the supervision of a mentor, students will develop a proposal for the final Exit Project, either GSE 701, GSE 702, GSE 703, GSE 704, to be submitted to the Graduate Program Committee for approval. Stipulations regarding the proposal are provided in the Exit Project Booklet available to students.
GEA 522 The Principal 3-3-0
This course will examine the relationship of the school principal with various constituencies, including students, teachers, the larger educational community and parents. Expectations and skills related to the roles and responsibilities of the school principal will be explored.
GEA 523 School and Community Relations 3-3-0
This course is designed to facilitate the development of communication and leadership skills necessary for positive school and community interactions. Students will examine contemporary issues from both a theoretical and practical perspective and develop strategies which address a variety of complex situations.
GSL 582 Building Oral Competencies
3-3-0
This course provides students with an overview of theory related to the teaching of adults. It focuses on the application of this theory to the teaching of English as a second language to adults: the development of a needs analysis, selection and design of appropriate materials, and the involvement of adult learners in the learning process.
GSL 589F Individual Project in the Teaching of English 3-3-0
This course may be taken with the special permission of the School of Education. It provides an opportunity for a student to pursue an area of special interest in the field of second language teaching.

## Graduate Certificates

Graduate Certificates offered at Bishop's in the School of Education consist of 15 credits. The certificates are intended primarily for in-service teachers, administrators, educational leaders, and other school-based professionals. The Graduate Certificate in Teaching and Learning in an Uncertain World is designed to meet the needs of educational professionals in the K-12, post-secondary, and private sectors.

The Graduate Certificate in Inclusive Education and the Graduate Certificate in Teaching and Learning in an Uncertain World are offered following a cohort model. Students will take two intensive, on-site or online summer courses in their initial session, and a further three courses online -- one in fall, one in winter, and one in spring.

## Graduate Certificate in Inclusive Education: Teaching and Learning for All

This program is intended for in-service teachers, administrators, and other school-based professionals who would like to be better equipped to support students in an inclusive setting. The certificate provides participants with opportunities to review and extend their knowledge of teaching, learning, assessment, and policy in Inclusive Education, while engaging with other practitioners in similar roles. Students enrolled in this certificate will be have the opportunity to reflect on their own practice, and to critically engage with current themes, theories, and research in the field of Inclusive Education. The graduate certificate will use a cohort model. Students will take two intensive, on-site or online summer courses in their initial session, and a further three courses online -- one in fall, one in winter, and one in spring. The initial intensive session is intended to help develop community within the cohort.

## Please note: This certificate may not be offered every year. This certificate does not lead to teacher certification.

Students will earn 15 credits by taking 5 of the 6 courses below:
GCI 524
Exceptional Learners in Inclusive Classrooms
GCI 525 School-based Mental Health Practice
GCI 526 Leading for Inclusion
GCI 527 Differentiating Instruction and Assessment
GCI 528 Special and Inclusive Education : History of Policy and Practice
GCI 529 Inclusive Education: Syntheses and Culminating Explorations

GCI 524 Exceptional Learners in Inclusive Classrooms 3-3-0 This course focuses on the teaching of students with exceptionalities in inclusive settings in the school community. It will provide students with the opportunity to examine the characteristics of diverse learners, including the psychological, medical and sociological aspects of various exceptionalities, and to consider how this knowledge best informs educational practice. Participants in this course will also critically examine approaches to facilitating learning for individuals with learning differences and other exceptionalities, such as Universal Design for Learning (UDL), and differentiated instruction (DI). Finally, students will consider collaboration with students, families, and other school personnel in the instructional process.
GCI 525 School-based Mental Health Practice 3-3-0
This course focuses on school-based mental health practice. Students will develop an understanding of the prevalence and range of mental health concerns that may be present in children and adolescents. They will analyze the educational impact of mental health issues on youth. They will examine various approaches to support students within the home, school and community. Students will explore a range of topics such as the benefits of authentic home/school collaboration, building children's resiliency, looking at behaviour through a self-regulation lens, and the role of connected relationships with caring educators.
GCI 526
Leading for Inclusion
3-3-0
This course explores student diversity within the context of inclusive education. Current theoretical and conceptual frameworks related to holistic learning, equity integration and a capacity-approach to diverse student learning will be examined. Attention will be given to critique the dominant views of equity and inclusion and how current schooling policies and practices are informed and constructed as a result. Students will reflect upon their agency and roles as leaders to envision and reconstruct more inclusive, student-centered, learning environments.
GCI 527 Differentiating Instruction and Assessment 3-3-0
This course will focus on various ways to differentiate instruction and assessment. Drawing on research- based best practices, specific cases highlighting different approaches will be used as a basis for investigation. Teachers and administrators will engage in an inquiry-based approach drawing on research to develop their own 'cases' showcasing plans to differentiate instruction and assessment.
GCI 528 Special and Inclusive Education:
History of Policy and Practice

3-3-0
This course examines the origins of special education and the historical development of education policy and law related to students with disabilities. The course will consider historical shifts in the theory and practice of identifying students with special needs, as well as educational debates concerning the type and quality of education that such students ought to receive. The movement for integration and inclusion will be explored through an analysis of major court rulings, legislation, and the growth of school policies related to equality, equity, and diversity.
GCI 529 Inclusive Education:
Syntheses and Culminating Explorations
3-3-0
Students in the graduate certificate will have the opportunity to bring learning together through a capstone project related to certificate themes and their own teaching and learning contexts. The capstone course consists largely of independent work undertaken alongside regular check-ins, guidance, and supervision from the course instructor. Capstone projects will be open in terms of focus and format, but are expected to represent a synthesis and/or application of developing understandings.

## Graduate Certificate in Teaching and Learning in an Uncertain World

This graduate certificate program will bring together teachers, educational leaders, and other educational professionals in the K-12, post-secondary, and private sectors to consider teaching and learning in an increasingly uncertain world. Through a focus on radical hope (Lear, 2008; Smits \& Naqvi, 2015), students will consider how taking educational action in the present might lead to improved outcomes in the future. The program as a whole will explore multiple and interdisciplinary lenses for considering the issues under study. There will also be a strong emphasis on curriculum as a tool for change. The graduate certificate will use a cohort model. Students will take two intensive, on-site or online summer courses in their initial session, and a further three courses online -- one in fall, one in winter, and one in spring. The initial intensive session is intended to help develop community within the cohort. Ideally it would occur face-to-face in order to engage in teaching alongside land.

Please note: This certificate may not be offered every year. This certificate does not lead to teacher certification.
Students will earn 15 credits by taking 5 of the 8 courses below:
GCU 542 Radical hope: Teaching and learning in the context of human-driven climate change
GCU 543 Reconceptualization of curriculum: Curriculum as a process in precarious times
GCU 544 Respect, relevance, reciprocity, and responsibility: Teaching and learning in good relation
GCU 545 Getting dirty: Experiential teaching and learning within and beyond the classroom
GCU 546 Protest as curriculum: Curriculum as protest
GCU 547 Navigating the uncertainty of living and learning online
GCU 548 Leading in an uncertain world: Considering the meanings of transformation in education
GCU 549 Teaching and learning in an uncertain world: Syntheses and culminating explorations

GCU 542 Radical hope:Teaching and learning in the context of human-driven climate change 3-3-0
This course will take an interdisciplinary approach to considering the human-driven climate change and what it means in terms of teaching and learning. It will present narratives from literature, science, education, anthropology, geography, the media, Indigenous studies, philosophy, and policy to consider how climate change is framed, what it implies for education, and how teachers and students might learn together hopefully in the face of how climate change is profoundly impacting global processes.

## GCU 543 Reconceptualization of curriculum:

## Curriculum as a process in precarious times

3-3-0
This course invites students to consider the meaning of curriculum for a world in crisis, and for leading and educating in uncertain times. Drawing on theorists who conceive of curriculum as process, rather than jurisdictionally-mandated content and prescribed outcomes, the course looks at curriculum and education as a responsive and dynamic social and cultural relationship. Within the course, the integration of natural, social, political and economic dimensions serves as a means for course participants to pose problems and design inquiries that they see as significant to themselves and relevant in school-setting - for youth who are facing an uncertain world and future.

GCU 544 Respect, relevance, reciprocity, and responsibility: Teaching and learning in good relation

3-3-0
This course examines the current context for Indigenous-settler relations in education in Canada. In particular it considers how Indigenous peoples have positioned education as a platform for resistance, resurgence, and the potential development of good relations. The course will explore key documents for framing such relations - Indian Control of Indian Education, the Royal Commission on Aboriginal Peoples, the Final Report of the Truth and Reconciliation Commission - in order to critically consider responses in place, curricular opportunities, and teachers' obligations.
GCU 545 Getting dirty: Experiential teaching and learning within and beyond the classroom
This course will focus on gardening, outdoor learning, and experiences in/with the natural world as a means of cultivating relationships with place and land for both teachers and students. There will be a significant hands-on component to the course in order to break down the fear of getting dirty and perceived risks of moving outside the confines of a classroom or school space. The course will work towards development of systems thinking where teachers and learners see themselves as a part of a relational world rather than in control of an objectified existence.
GCU 546 Protest as curriculum: Curriculum as protest
3-3-0
This course will examine the deep connections between social and ecological justice through protest and land protection movements. It will consider historical origins of protest, the goals and impacts of protest, and motivations for protest. The course focus will be protest and land protection movements led by young people and members of communities that are marginalized, undertaken in support of the planet and all its inhabitants. It will position such movements as opportunities for learning, and take a particular interest in public curricula emerging from the movements to consider how such curricula can inform teaching and learning in schools.
GCU 547 Navigating the uncertainty of living and learning online 3-3-0 Online technologies have influenced how we live and how we learn. This course will explore the relationships between online communication technologies and our communities, our relationships, and our learning. It will explore challenges associated with the use of online communication technologies including cyberbullying and the role of educational leaders in addressing these issues. It will consider transformational possibilities for life-long learning and community building, examining specific cases in multiple contexts including schools. It will also explore ways technologies can support us navigating uncertain times.

## GCU 548 Leading in an uncertain world: Considering the meanings

 of transformation in education3-3-0
Through this course students will learn about and critically analyze frameworks for transformational work in educational settings. Taking into account increasing uncertainty, ambiguity and complexity in the world, the course takes up a variety of disciplinary and inter-disciplinary lenses such as educational leadership and systems thinking. The course develops competencies related to leading and engaging in transformational change processes in the context of global uncertainties.
GCU 549 Teaching and learning in an uncertain world:

## Syntheses and culminating explorations

3-3-0
Students in the graduate certificate will have the opportunity to bring learning together through a capstone project related to certificate themes and their own teaching and learning contexts. The capstone course consists largely of independent work undertaken alongside regular check-ins, guidance, and supervision from the course instructor. Capstone projects will be open in terms of focus and format, but are expected to represent a synthesis and/or application of developing understandings.

## Graduate Certificate in Culturally and Linguistically Responsive Teaching

The certificate aims to prepare in-service teachers and/or educational personnel who teach and work with linguistically and culturally diverse students in local and international contexts. The program equips participants with the essential knowledge in linguistics, second language acquisition as well as teaching and learning approaches that are linguistically and culturally responsive to the needs of additional language learners in different contexts. The program also highlights a critical understanding of bi/plurilingual learner characteristics and how their complete communicative repertoires in first and additional languages as well as their diverse cultural resources can be leveraged for meaningful language and content learning and intercultural communication.

Please note: This certificate may not be offered every year. This certificate does not lead to teacher certification.
Students will earn 15 credits shown below:
GSE 581 Introduction to Linguistics for Language Teaching
GSE 582 Language Acquisition
GSE 588 The Second Language Learner
GCL 597 Plurilingualism and Intercultural Education
GCL 598 Methods in Plurilingual Integrated Teaching and Learning

GSE 581 Introduction to Linguistics for Language Teaching 3-3-0
This course is a survey of linguistic theory as it relates to second language teaching. Students are exposed to major themes in linguistics as a basis for the study of second language teaching and learning.
GSE 582 Language Acquisition 3-3-0
The purpose of this course is to examine ways in which theories of language acquisition have implications for the teaching and learning of a second language. The course includes a study of important research in the field of language acquisition and its relevance to second language teaching.

## GSE 588 The Second Language Learner

3-3-0
This course focuses on a learner-centered approach to second language teaching. It emphasizes the importance of individual learner backgrounds, special needs of learners, individual learning styles and strategies, and cultural considerations in the teaching of English as a Second Language.
GCL 597 Plurilingualism and Intercultural Education
3-3-0
This course explores recent changes in language theory, viewing individuals' language competencies as complex, dynamic and holistic repertories of communicative resources that language learners/users employ to construct meaning and engage in intercultural communication.
Implications for teaching and learning will be examined and discussed, focusing particularly on how plurilingual pedagogies can facilitate metalinguistic awareness, cross-language connections as well as critical intercultural awareness.
GCL 598 Methods in Plurilingual Integrated Teaching and Learning 3-3-0
This methods course introduces the participants to teaching approaches that support diverse students' use and development of plural repertoire of linguistic and cultural resources to meet communication needs in academic and/or professional contexts. It includes a specific focus on curricular design, development of curricular materials, as well as teaching and learning practices that foster the development and use of transversal language and literacy skills and strategies to promote effective knowledge construction and communicative performance.

## Graduate Certificate in Teaching Intensive English

The Graduate Certificate in Teaching Intensive English is intended for in-service ESL teachers who would like to be better equipped for intensive ESL (IESL) teaching positions. The program provides teachers with opportunities to review and extend their knowledge of language teaching pedagogy while studying in an English-environment.

Please note: This program is not offered every year.
Students will gain 15 credits through the courses below:
GSL 540 Intensive English: New Trends and Theories
GSL 541 Teaching and Learning in Intensive English
GSL 544 Course and Curriculum Design in Intensive English
GSL 547 Language Learning through Cultures
GSL 549 Building Oral Competencies
GSL 540 Intensive English: New Trends and Theories 3-3-0 This course addresses issues related to second language learning and acquisition, particularly those that relate to intensive English. Topics addressed include language learning theories, such as cognitive and sociocultural perspectives; theories of bilingualism and multilingualism; new literacies - multiliteracies, critical literacy; discussion and debate about Intensive English in society; and various models of Intensive English.
GSL 541 Teaching and Learning in Intensive English 3-3-0 This course discusses both new and familiar learning theories and pedagogy in the context of the Intensive English program. Participants will explore learnerresponsive teaching through examining individual differences \& multiple intelligences, differentiated instruction, and cooperative learning. They will also look at the ways In which various technologies can contribute to intensive English pedagogy and computer-assisted language learning (CALL)
GSL 544 Course and Curriculum Design in Intensive English 3-3-0 Participants will examine aspects of course and curriculum design that are relevant to teachers of intensive English. They will learn about and apply Interdisciplinary design, backward design, and universal design. They will discuss content-based, task-based, and project-based approaches to language teaching and pedagogical issues related to the teaching of linguistic forms in meaning-focused instruction. The challenges and benefits of making connections with other subject areas and collaborating with other colleagues will be discussed.
GSL 547 Language Learning through Cultures 3-3-0 This course will explore the language arts approach to the teaching of ESL. Theories regarding the connection between English-language cultures and language learning will be introduced, and students will be involved in the construction of classroom learning situations based on different cultural forms (e.g.,(poetry, short stories, films, songs and other media) to promote language learning and a critical appreciation of the English-language cultures.
GSL 549 Building Oral Competencies 3-3-0
This course will address issues related to the development of listening and speaking skills in second language learners, including those related to pronunciation. In addition, it will focus on varieties of oral communication in different contexts and the different levels and ages of learners.

## Graduate Certificate in Brewing Science

## Program Overview

CONBRW
The Graduate Certificate in Brewing Science is a two-semester graduate certificate designed specifically to meet the growing need for well-trained, scientifically educated brewers and / or brewing analysts in the craft and industrial brewing sectors. Students completing this program will be prepared to fill any position relating to the brewing process, the chemical and microbiological analysis of beer and precursor materials (water, malt, hops, yeast, wort, etc.), and research and development.

To qualify for enrolment in the Graduate Certificate in Brewing Science program, students must hold a B.Sc. in Biochemistry, Biology, Chemistry, or another discipline relating to one or more of the three (e.g. Chemical or Biological Engineering) and a minimum graduating average of $60 \%(\mathrm{C}+)$.

The Graduate Certificate in Brewing Science is comprised of six one-semester classroom courses and a full-year practicum in the University's teaching brewery, as shown below.

| Fall Semester | Winter Semester |
| :--- | :--- |
| BRS501 - <br> Brewhouse Chemistry <br> (3 credits) | BRS504 - <br> Microorganisms in the Brewery <br> (3 credits) |
| BRS502 - <br> Malt and Malting <br> (3 credits) | BRS505 - Chemical Analysis of <br> Beer and its Ingredients <br> (3 credits) |
| BRS503 - Hops <br> (3 credits) | BRS506 - The Business of <br> Brewing (3 credits) |
| BRS598 - Brewing <br> Practicum I (3 credits) | BRS599 - Brewing Practicum II <br> (3 credits) |

# Graduate Certificate in Brewing Science Courses 

BRS 501 Brewhouse Chemistry<br>3-3-0

Water, referred to as Hot Liquor in brewing jargon, provides the medium in which all of the chemical and biochemical reactions that are involved in producing beer take place. Additionally, the mineral content of the Hot Liquor is a critical factor in determining many of the final characteristics of the beer, provides many of the essential elements for healthy yeast growth, and contributes enormously to mash pH . This course provides an in depth, comprehensive look at water, its properties, and how its mineral contents affect all aspects of beer and the brewing process.

## BRS 502

Malt and Malting
3-3-0
Malt is produced by the germination of grain (barley, wheat, rye, etc.) followed by application of heat (kilning). It is the heat regimen, together with the type of grain that determines the characteristics of the malt. The malt is the source of the starch that is converted to sugars which the yeast ferments to produce alcohol and it is also primarily responsible for the colour of the beer. Malt is also an important contributor to flavour, aroma, characteristics of the foam (head), mouth feel, and other characteristics of the beer. This course will cover malt from farming and harvesting of the grain, through the transformations of the malting process, to its chemical and biochemical transformations in the brew house.

## BRS 503 Hops

3-3-0
Hops is the ingredient that contributes the characteristic bitterness of beer. It is also responsible for much of the flavours and aromas of beer, particularly those observed in heavily hopped beers such as India Pale Ale, American Pale Ale, and even hoppier double IPAs. The first section of this course will cover the farming, harvesting and processing of hops. The second section will cover hop chemistry,
focusing on the resins (bittering agents) and essential oils (flavour and aroma contributors) of the hop cone and their transformations during the brewing process.

## BRS 504

Microorganisms in the Brewery
3-3-0
The role of brewer's yeast in the brewing process, particularly its fermentation of sugars to produce alcohol, is fairly well known. However, yeast is also responsible for producing dozens, if not hundreds, of chemical compounds as it metabolizes the sugars, amino acids, and other components during fermentation. Many of these compounds contribute significantly to the flavour and aroma of beer. Other microorganisms, such as wild yeast and bacteria, are also potential contributors to the complex chemistry and biochemistry that occurs in the fermenter; sometimes to the benefit of the beer but more often to its detriment. This course will look at all of the microorganisms that are commonly found in the brewery and provide a detailed description of their chemistry and thus their impact on beer flavour and aroma.

BRS 505 Chemical Analysis of Beer and its Ingredients
As a food product, beer is rigorously controlled at both the federal and provincial levels of government. Part of this process is ensuring that a number of analytical parameters are accurately reported (e.g. alcohol by volume). Many other properties of beer are indicators of the efficacy of the brewing process and whether the brewer is producing a quality product. Analysis of the ingredients of beer (water, malt, hops, yeast) is essential to ensure that standards of quality necessary to produce good beer are met. This course will provide students with an in depth look at the chemical analyses commonly used to analyse beer and its precursors, using the methods database of the American Society of Brewing Chemists. Students will use what they learn to analyse the ingredients and the beer that they use / produce in the co-requisite practicum in brewing.
BRS 506 The Business of Brewing
3-3-0
There is a great deal of time and hard work that goes into planning, building, equipping, and running even a small microbrewery. When a microbrewery fails, it is generally because the ownership doesn't have a particular skill set, whether it be on the brewing side or on the business side. This course will take students through all of the steps necessary to get a microbrewery from the planning to the operation stage, and also introduce them to the business knowledge necessary for running a successful microbrewery.
BRS $598 \quad$ Practicum in Brewing I
3-3-0
Ultimately, brewing is a hands-on activity. The brewer must pay careful attention at every step of the brewing process in order to ensure that they have the best chance of producing the desired final product. Even then, the beer, although well crafted, may not exhibit the characteristics of flavour, aroma, colour, bitterness, etc. that the brewer was attempting to produce. Recipe development is a wonderful example of the scientific method and this approach to brewing will be the main focus of this course. Upon completion of BRS 598 and BRS 599, students will receive more than 180 hours of brewing experience, constantly comparing what they observe in the brewery with what they are learning in their BRS lecture courses. The aim is to produce a brewer who is proficient in the brewery but also understands the complex chemistry and biochemistry that is involved in producing the highest quality beers. Students in this program must complete both BRS 598 and BRS 599 as they take the six lecture courses of the Graduate Certificate in the Brewing Science program.
BRS 599 Practicum in Brewing II
3-3-0
Ultimately, brewing is a hands-on activity. The brewer must pay careful attention at every step of the brewing process in order to ensure that they have the best chance of producing the desired final product. Even then, the beer, although well crafted, may not exhibit the characteristics of flavour, aroma, colour, bitterness, etc. that the brewer was attempting to produce. Recipe development is a wonderful example of the scientific method and this approach to brewing will be the main focus of this course. Upon completion of BRS 598 and BRS 599, students will receive more than 180 hours of brewing experience, constantly comparing what they observe in the brewery with what they are learning in their BRS lecture courses. The aim is to produce a brewer who is proficient in the brewery but also understands the complex chemistry and biochemistry that is involved in producing the highest quality beers. Students in this program must complete both BRS 598 and BRS 599 as they take the six lecture courses of the Graduate Certificate in the Brewing Science program.

# Graduate <br> Micro-Program in <br> Climate Change 

## Faculty

## Matthew Peros,

B.Sc. (Toronto), M.Sc. (York), Ph.D.(Toronto);

Professor, Tier II Canada Research Chair in
Climate and Environmental Change
Director of the Graduate Micro-Program in
Climate Change
Elisabeth Levac,
B.Sc., M.Sc. (UQAM), Ph.D.(Dalhousie); Professor
Valerio Faraoni,
B.Sc. (University of Pavia, Italy), M.Sc., Ph.D. (International School of Advanced Studies, Italy); Professor
Darren Bardati,
B.A. (Bishop's), M.A., Ph.D. (McGill)

Professor

## Program Overview (9 credits)

CONECC
Finding solutions to the problems brought on by climate change requires educating a new generation of global citizens well-versed in the concepts, issues, and challenges associated with such a complex topic. Bishop's University has responded to this need by developing a new graduate-level Micro-Program in Climate Change. The new program, the first English-language program of its kind in Québec, will offer instruction from leading experts on the science of climate change, its impacts, and strategies for its mitigation. At the end of the program, it is expected that students will be able to:

- Take a position and provide evidence to support arguments concerning major issues in climate change science
- Develop an understanding of the causes and effects of climate change on local, regional, and international scales, in major regions of the world (poles, tropics)
- Articulate a range of plausible solution strategies to confront climate change in terms of adaptation and mitigation
Graduates of the Micro-Program will be well positioned to compete for jobs in both government and the private sector. Moreover, the Micro-Program could be used as a springboard for further study, whether it involves graduate school in a climate or environment-related field, or a professional degree such as law school or an MBA. Indeed, the Micro-Program has been designed so that it will provide students with a solid understanding of both the scientific and non-scientific aspects of climate change and thus will be highly applicable to a range of career options.


## Admission Requirements

The basic entry requirement will be an undergraduate degree in any field from a recognized university with at least a B standing in the final two years of study. There are no specific pre-requisites, but students will need to be comfortable with basic mathematical and scientific concepts. It is not possible to enroll in the MicroProgram before the completion of all undergraduate degree requirements.

## List of Courses

To complete the Micro-Program, students will do three threecredit masters-level courses (for a total of nine credits) from a list of six potential courses:

## ESG 502 Sustainable Agriculture and Climate Change 3-3-0

The purpose of this course is to examine the nexus of agriculture and climate change. What are the impacts that climate change is having on agriculture, and what are the impacts that agriculture is having on climate change? We will examine climate change projections, changing agricultural practices, and their impact on food security. We will also learn agriculture's role in reducing greenhouse gas emissions, and discuss how agroecological and regenerative approaches to agriculture might build resilient systems, and help people adapt to climatic changes. The course will include guest lectures from prominent academics working in this field.
The course also involves attending the annual Living Soils Symposium in Montreal in March every year.
Fieldwork will take place at the Campus Educational Farm and other local farms.
ESG 525 The Anthropocene 3-3-0
The idea of an Anthropocene is changing our view of the extent to which humans have shaped the natural world. However, many questions still remain concerning the Anthropocene, such as when it began and what activities characterize it. This course will examine recent research in the Anthropocene and the controversies surrounding it. The course material will be centered around a project the class undertakes that involves the study of human impacts in the Eastern Townships using a variety of data sources
ESG 526 Environmental Impacts of Climate Change and
Human Activities on the Oceans
3-3-0
People living in cities remote from the sea often forget about the role of the oceans in their economy and in the climate system. The course will examine society's relationship with the oceans, especially in coastal zones. Oceans are the site of many important human activities, and thus are sensitive to pollution and modifications brought by climate change. The goal of the course is to increase students' awareness of the major environmental issues presently affecting the oceans and the challenges facing decision makers when dealing with the impacts of climate change on the oceans (e.g., sea level rise, saltwater intrusions into aquifers, fisheries, etc.).
ESG 561 Arctic and Antarctic Environmental Change 3-3-0 The polar environments, especially the Arctic, are undoing change at a rate far faster than most other regions. Change at the poles has happened in the past and will continue to have important consequences for all Earth's systems. This course will examine the development of these extreme environments and examine what can be expected for the future.
ESG $570 \quad$ Special Topics in Climate and Environmental Change 3-3-0 A graduate-level lecture/seminar course offered by regular and visiting faculty on topics related to their research interests in climate and environmental change. Topics are determined by the instructor therefore content of the course varies year by year. The course will be offered on an occasional basis.
ESG 573 Energy and the Environment
3-3-0
This course introduces the concepts of energy and power and their units and reviews energy sources, fossil fuels, their environmental impacts, and resource consumption. The basics of heat transfer, energy conversion, and its efficiency according to thermodynamics are covered (including the concepts of temperature, specific and latent heat, the first and second law of thermodynamics, heat engines, and thermal systems). Other topics discussed include electromagnetic and blackbody radiation, the greenhouse effect, the Earth's energy balance, the basics of electromagnetism, and electric power. Radioactivity, nuclear energy, and renewable energy sources are introduced.

## ESG 575 Tropical Environments and Climate Change <br> 3-3-0

This course attempts to provide an overview of the tropics as a unique environment and one that poses special problems to its human occupants. The working assumption in the course is that the tropics comprise a far too complex and heterogeneous environment for simple generalizations to apply. However, by gaining some understanding of how its component systems work, one can be in a better position to identify the appropriate questions to be asked and experiments to be performed, so that site-specific solutions can be developed for management problems in different parts of the tropical world. The course will provide a review of tropical climatology, soils, and biomes, in addition to discussing more applied issues such as forestry and agriculture.
ESG 577 The Health Impacts of Climate Change 3-3-0
Climate change is expected to affect human health in numerous ways. The most obvious health impacts are those associated with thermal stress and extreme weather events such as floods and hurricanes (premature deaths, infectious diseases; diarrhoeal disease). Global warming will also be associated with a spread of vector-borne diseases (such as malaria, dengue fever, yellow fever, Lyme disease, etc.) and increases in seasonal allergies. The course will examine the overall impact of environmental degradation, displacement and loss of livelihood on the general physical and mental health of populations.

Courses will be offered in the winter semester of each year. Students may take all three courses in one semester, or take courses over a period of several years. The courses will consist of a combination of seminar, lecture, fieldtrip, and laboratory instruction.

## Graduate Certificate in Knowledge Mobilization

## Program Overview

## ( 15 credits)

CONKMB
Knowledge Mobilization (KMB) is the process by which we share and uptake information for the benefit of society. The goal of this Graduate Certificate is to develop the students' knowledge, skills and values with respect to KMB and build the capacity to select and apply KMB tools and techniques in research and/or applied contexts. The basic entry requirement will be an undergraduate degree in any field from a recognized university with at least a B standing in the final two years of study. There are no specific prerequisites, though it is highly recommended that students have some background in research methods and scientific concepts. Students in this program will complete 3 courses ( 15 credits) in a 12 -week span during the Spring term, including a 6 -week practicum.
KMB 510 Theories of Knowledge Mobilization 6-6-0
This course is an overview of the theories and practices involved in the creation, synthesis, translation and dissemination of knowledge. We will discuss various contexts in which knowledge is created, various perspectives on how 'knowledge moves', how to identify audiences for specific areas of knowledge, and how to identify barriers and facilitators to using and sharing knowledge. Across various disciplines, we will identify current tools and techniques to evaluate the success of KMB initiatives. Students in this class will create their own KMB package to inform or raise awareness, and will design an evaluation of their KMB project.

## KMB 520 Science Communication

3-3-0
This course will focus on skill development, writing and communication strategies for online and print media, such as online blogs, and columns in local newspapers, as well as current innovations in communication such as infographics. Students will hone their skills in writing technique, particularly in communicating complex scientific material to a broader audience.

KMB 530 Knowledge Mobilization Practicum
6-6-0
The practicum would explore the application of knowledge gained from the theoretical courses taken in the first half of the Certificate. Students would be placed in a local organization with a mandate to translate knowledge into action. Examples of projects that could be conducted during a practicum include establishing a KMB strategy for an organization, creating KMB materials that would meet the organization's needs, researching and writing a column in a local newspaper, developing a workshop, or participating in a KMB internship at Bishop's University's Research Office. At the end of the practicum, students would submit a portfolio that would include the KMB projects that they have led and/or supported over its duration, a preliminary evaluation of these projects, as well as a journal outlining how previous study of KMB theories and of science communication informed their practicum experience.
Prerequisites: $K M B 510$ and $K M B 520$

## Master's Degree in Computer Science

## Master's Degree Program ( 45 credits)

## I. Thesis Option

## cONCSC

## Entrance Requirements

The minimum requirements for admittance to the Master's program are an undergraduate degree with a major in Computing Science or equivalent, and a high upper-second class standing.

Candidates with high graduate academic standing in an undergraduate degree other than computer science, who have some computer science background either graduate academic or professional, may be admitted as graduate preparatory students. Preparatory students will be asked to complete up to one year of undergraduate courses to enhance their background.

In addition to graduate academic performance, a combination of factors is taken into consideration in assessing the eligibility of a candidate for admission into graduate programs.

One important such a factor is the availability of a faculty member competent and willing to supervise the graduate academic program of studies and research of the candidate; a candidate will not be admitted to the program under any circumstance unless such a faculty member exists.

Other factors graduate the performance of the candidate and the assessment provided by his/her referees as a measure of the likelihood that the candidate can graduate complete the course of studies and research.

## Program Requirements

45 CSC credits:
15 cr : five 500-level CS courses
6 cr: Graduate Seminar CS 597
24 cr: Master's Thesis CS 599
Graduate students should familiarize themselves with the University and divisional calendar and regulations. Some of the information herein is adapted from these regulations, but is not intended as a replacement.

Completing the degree normally requires five one-term 500-level courses, registration and participation in the Graduate Seminar (CS 597), together with a Master's thesis (CS 599). Courses are chosen by students in consultation with their super-
visor. All courses prescribed for a student's approved program of study are designated as primary. Courses additional to the student's approved program are designated as secondary. Failure to attain a minimum of $65 \%$ in any of the primary courses may result in the student being required to withdraw from the program.

Under certain circumstances, it is permissible for a student admitted to the program to follow an approved graduate-level credit course at another university. All interested students should consult their supervisor and the chair of their department prior to registration in order to obtain further information on procedures and conditions of eligibility.

A thesis proposal should be completed as soon as possible and by the end of the second term in the program at the latest. Students are expected to present their proposal in the Graduate Seminar course and also expected to give more detailed seminars describing their work later.

Thesis topics are chosen after discussion with potential supervisors. The amount of flexibility allowed in pursuing a particular topic will vary according to the supervisor's needs and interests. Theses are defended before an examining committee consisting of two members of the department, and an external examiner.

Any candidate (full-time or part-time), after initial registration in a thesis must maintain this registration in all successive terms (including the term in which the student is examined) until his/ her thesis is completed. Completion means submission of a final grade to the Division after modifications, any retyping involved, etc. Students should note that faculty approval to register in the thesis is given on the understanding that the student will be in regular contact with his/her supervisor, and that thesis research will be actively pursued in each term of registration.

Students in the Thesis Option stream can switch to the Project Option stream at any time. Any graduate courses they already passed will count toward the requirements of their new program. No credits for the graduate seminar or the Master's thesis can be transferred.

## Preparatory Students

Candidates who do not satisfy the admission requirements may be admitted to a qualifying program. If successful in this qualifying period and upon formal application to the Division, the student may eventually proceed to the Master's program. However, admission to the qualifying program does not imply automatic admission to the Master's program; at the end of the qualifying period the student will be required to apply for entry into the Master's program, at which time the department will determine the student's eligibility. If successful, the student will be informed of this decision by the Admissions Office.

Credits taken to fulfill the requirements of the qualifying program may not be used for credit for the Master's degree. Courses taken extra to the program requirements of the qualifying year and which have been successfully completed may be considered for credit towards the Master's degree.

## II. Project Option

## Entrance Requirements

The minimum requirements for admittance to the Master's program are an undergraduate degree (minimum of a $70 \%$ ) with a major in any of the following disciplines: Computing Science, Information Technology, Computer Engineering, Electrical Engineering, Mathematics or Physics.

Candidates with insufficient academic background in Computer Science may be admitted as graduate preparatory students. Preparatory students will be asked to complete up to one year of undergraduate courses to enhance their background. Admission to the qualifying program does not imply automatic admission to the Master's program; at the end of the qualifying period the student will be required to apply for entry into the Master's program, at which time the department will determine the student's eligibility. If successful, the student will be informed of this decision by the Admission office. Credits taken to fulfill the requirements of the qualifying program may not be used for credit for the Master's degree. Courses taken extra to the program requirements of the qualifying year and which have been successfully completed may be considered for credit towards the Master's degree.

## Program Requirements

45 CSC credits:
$\begin{array}{ll}36 \mathrm{cr}: & \text { twelve } 500 \text {-level CS courses } \\ 9 \mathrm{cr}: & \text { Master's Project CS } 590\end{array}$
CS Graduate students should familiarize themselves with the University and divisional calendar and regulations. Some of the information herein is adapted from these regulations, but is not intended as a replacement.

Completing the degree normally requires twelve one-term 500-level courses, together with a Master's project (CS 590). Courses are available during the regular semesters (Fall and Winter), and are chosen by students depending on their interest, their background, and on course availability. The Master's project is normally available only during the Spring/Summer semester.

Students whose cumulative average falls under $65 \%$ will be restricted to 3 course per semester until their average is brought back to $65 \%$. Failure to maintain a minimum of a $65 \%$ cumulative average may result in the student being required to withdraw from the program.

Students in the Project Option stream can switch to the Thesis Option stream as long as they meet the following conditions: (a) they have taken and passed at least four graduate courses at Bishop's, (b) they have an average grade of 75 or better in the graduate courses taken at Bishop's, and (c) at least one faculty expresses interest in supervising their research toward the Master's thesis. No more than five graduate courses can be counted toward the requirements of the new program.

## List of Graduate Courses

Master's students may take any five graduate courses as long as these are approved by their supervisor. Graduate students in the department may include in their programs relevant courses from other departments within the Division.

The department currently offers the following courses. The actual courses offered each term will be determined by student demand and the availability of faculty.
CS 501 The Internet of Things 3-3-0
How can companies deal with the vast amount of data coming from a variety of different devices? In the 'Internet of Things' there are many different devices, sensors and data logs. How can a computer scientist take this data and turn it into a readable or graphical form (dashboard) for people to make sense of. The course will consist of looking at how devices such as the 'Fitbit', smartphones, in house security systems send data over the Internet to a server and how this data can be interpreted into something that large corporations can use.
CS 502
Computational Topology
3-3-0
Computational topology uses topological concepts with efficient algorithms to analyze data and solve problems in many fields, including computer graphics and image analysis, sensor networks, clustering, robotics, and others. This course will present an introductory, self-contained overview of computational topology. This course has no formal prerequisites, but a basic mathematical knowledge in calculus and algebra at the senior undergraduate level and some familiarity with the use of computer packages (e.g., Matlab, R, C++, etc.) are expected. We will cover basic concepts from a number of areas of mathematics, such as abstract algebra, algebraic topology, and optimization. We will also look at algorithms and data structures, and efficient software for analyzing the topology of point sets and shapes - termed topological data analysis, or TDA.
CS 503
Data Visualization
3-3-0
The course explores analytical methods paired with appropriate visualizations for automated and human-assisted analysis for data sets. Several visualization techniques allowing to present data to an observer in a way that yields insight and understanding will be investigated. These big data analysis and visualization techniques are applied to data sets from a wide variety of scientific domains such as biology, physics, engineering, and medicine. The analysis and visualization methods will be illustrated through concrete examples.
CS 504 Programming Languages for Data Analysis 3-3-0
In this course students will be introduces to the most popular languages and software environments used in statistical computing and visualization. The course will involve significant programming projects in SAS, Weka, R and Python.
CS 505
Data Mining
3-3-0
Cross-listed with CS 405. Data is now created faster than humans are able to understand it and use it. There may be patterns hiding within this data with potentially useful information. This course will teach students, how to discover these patterns for the purpose of solving problems, gaining knowledge, and making predictions. Topics covered in this course include data preparation, clustering, classification, association rules for mining and models combination. This course includes assignments and a final project where the students are required to perform mining on real datasets. Students are expected to perform a substantial analysis of the data set, or prepare a research paper.

## CS 506 Parallel Models and Algorithms

3-3-0
This course provides an introduction to the design and analysis of parallel algorithms and to the various models of parallel computation. The course will discuss parallel algorithms for problems such as: basic arithmetic, sorting, searching, selection, graph theory, matrix computations, combinatorial enumeration, optimization, computational geometry, and numerical analysis. Parallel computational models and their properties will be presented. Other typical topics include: complexity classes, and the parallel computation thesis.
CS 507 Statistical Learning
3-3-0
Statistical learning is concerned with modelling and understanding vast and complex datasets using methods rooted in statistics. The main objective is for the students to master how and when to apply statistical learning techniques in real world applications. Topics covered include linear regression, classification, linear discriminant analysis, tree based methods, support vector machines, graphical models, random forests and boosting. Projects illustrating how to implement each of the statistical learning methods are carried out using a statistical software package.

CS 509
Pattern Recognition
3-3-0
This course addresses the fundamental theory and techniques of pattern and features classification in numerical data. Pattern recognition methods can be useful in diverse real world applications such as medical data processing, data mining, information retrieval, computer vision, handwriting and speech recognition, and more. The course topics include Bayesian decision theory, statistical classification, maximum likelihood estimation, nonparametric techniques, stochastic methods and unsupervised learning.
CS $510 \quad$ Model-Based Testing of Reactive Systems
3-3-0
The course provides an in-depth exposure to the area of formal methods called model-based testing. Various testing models will be presented, including traces, may- and must-testing, refusals, and failure traces. Relations to related specification and verification techniques such as temporal logic and model checking will also be investigated. Students are expected to participate in the presentation of the lecture material and perform independent research.
CS 512 Computer Games Design
3-3-0
Cross-listed with CS 412. This course will explore the theory and practice of video game design and programming. Students will learn the basic concepts and techniques for the design and development of digital games. The topics covered in this course will include the history and taxonomy of video games, the basic building blocks of a game, computer graphics and programming, user interface and interaction design, and the software architecture for video games. Students are expected to prepare a research paper during the course, or pursue a larger applied project.
CS 515 Concurrent \& Real-Time Systems 3-3-0
This course provides an introduction to a process algebra such as CSP. It then uses this language for the specification, analysis, and verification of concurrent and real-time systems. Finally, the course presents the use of such a process algebra as a formal method for concurrency at different stages in the development process.
CS 516 Volumetric Image Analysis \& Visualization 3-3-0
Digital volumetric images are stacks of two dimensional image slices produced for instance by tomographic scanner. The goal of this course is to study the different techniques and algorithms for the analysis of volumetric images including a discussion about some sources of volumetric images, especially those occurring in medical imaging with different modalities (Radiology, Computed Tomography, Magnetic Resonance Imaging, Nuclear Medicine, Ultrasound, Positron Emission Tomography). The course will also address the different techniques used to display and visualize volumetric images including volume slicing, surface rendering, and volume rendering.
CS 520
Advanced Topics in Software
3-3-0
The course will present topics of current interest or research directions in software and related areas. The course content is expected to vary to reflect the current interests of students and faculty. Students are expected to participate in the presentation of the lecture material and engage in independent research.

## CS 555

## Automata Theory \&

Computational Complexity
3-3-0
Cross-listed with CS 455 . The course will address finite-state machines, contextfree languages and pushdown automata, computability. A systematic study of the known relations between the most important resource bounded complexity classes, reductions, separation results and translation techniques is also included. Students are expected to prepare a research paper during the course.
CS 556
Compilers and Interpreters
3-3-0
Cross-listed with CS 406 . This course is intended as an introduction to the fundamentals of language translation and compiler construction. Topics will include language theory and syntax; grammars, finite state machines, non-deterministic pushdown automata; a thorough treatment of parsing methods covering top-down, bottomup and precedence parsers; Syntax directed translation; Run-time environments; optimization and error recovery; code generation. Students are expected to implement complex semantic analysis and a complex compiler back-end. In particular they are expected to implement various aspects of machine code optimization.
CS 557 Database Software Design 3-3-0
Cross-listed with CS 457. This course covers how one can implement a Database Management system. Major topics are Storage management, Query processing, and Transaction management. As a basic assumption, data will not all fit in main memory, so algorithms and data structures appropriate for effective disk storage and quick access must be used. For example, one may use index structures such as B-trees or hash tables. We cover parsing of queries and optimizing of query plans. Finally, we cover durability of transactions using logging, and concurrency control for isolation of transactions. Additional topics in distributed databases are also presented. Students are expected to prepare a research paper during the course, or pursue a larger applied project.

CS 560 Software Engineering 3-3-0
Cross-listed with CS 410. Software is an engineered product that requires planning, analysis, design, implementation, testing and maintenance. This course is a presentation of the techniques used in each step of the software product process. Topics: software requirements analysis and specifications; software design process, object oriented design; testing, reliability and maintenance; automated design tools, programming environments. Students are expected to prepare a research paper during the course, and work on large applied projects.

## CS 562 <br> Mathematical Models in Image Processing <br> 3-3-0

Cross-listed with CS 462. Image processing is a rapidly growing field. As such, it requires and necessitates a number of mathematical models and domains to achieve efficient processing algorithms. Designing a successful processing technique invariably relies on having a successful model for images themselves. The mathematical techniques needed could range from Partial differential equations, Differential geometry, Morse theory, Topology, Algebraic topology, Wavelets, Statistical techniques, Calculus of variations, Numerical methods, Graph theory, and Optimization. The objective of this course is to discuss in depth a number of selected mathematical topics (and their use in image processing) that are of interest to the students at the moment the course is given.

CS 563
Image Analysis
3-3-0
Cross-listed with CS 463. Image analysis is concerned with the development of machine algorithms in order mimic the biological organism's ability to see and understand images and videos. The course content include: camera models and calibration, image enhancement, features extraction and representation, shape from shading, stereo and texture, optical flow, motion analysis, high level vision and case studies.
CS 564 Network Programming and Distributed Algorithms 3-3-0 Cross-listed with CS 464. The course presents computer networks at a functional level, with strong emphasis on programming distributed applications over a network. Discussion will be based on open networking and application standards such as the TCP/IP protocol suite and the Portable Operating System Interface (POSIX). The concept of distributed algorithms together with the associated challenges and examples are then presented. Programming distributed applications (in C or $\mathrm{C}++$ ) is an integral part of the course. Students are expected to work on a large, distributed, and practically meaningful application as part of the course.
CS 565
Advanced Topics in Computer Analysis
3-3-0
The course will present advanced topics of current interest or research directions in Computer Applications. The course content is expected to vary according to the interests of students and faculty. Students are expected to prepare a research paper during the course, or pursue an applied project.
CS 566 Advanced Topics in Artificial Intelligence 3-3-0 The aim of this course is to cover some advanced topics of current interest in artificial intelligence and their practical side. These topics include but are not limited to Bayesian learning approach, predictive analytics, neural networks, deep learning, generative adversarial networks, and reinforcement learning. Students are required to work on large projects based on the concepts presented in this course, and to submit a paper on a topic related to their research.

## CS 567 Advanced Topics in Algorithms 3-3-0

Cross-listed with CS 467. The course covers some advanced aspects of algorithms and complexity. It studies the topic of NP- complete problems. Some specialized algorithms in several areas will be discussed, such as Bioinformatics, Computational Geometry and Network Flow.
CS 569 Special Topics in Computer Science 3-3-0
The course will present topics of current interest in Computer Science. The course content varies reflecting the interests of the faculty. Students are expected to participate in the presentation of the lecture material and engage in independent research.

CS 571
Graph Theory and Algorithms
3-3-0
This course provides an introduction to the combinatorial, algorithmic and algebraic aspect of graph theory. There will be a brief refresher of mathematical proof techniques. Topics will include paths and circuits, graph trees, planar graphs, graph colourings, and the Max Floss-Min Cut Theorem. Programming Assignments to implement graph algorithms (in Maple or Octave for example) will be required.
Note: See MAT 421/MAT 521. Students may not take this course for credit if they have received credit for MAT 421 or MAT 521.

CS 590 Master's Project
9-0-0
The Master's project consists of addressing a CS research topic which may be theoretical or practical. Research topics may be given individually or as "grand challenges" to several candidates; however, all the work for the project must be individual. Students can choose to do a project from the topics proposed by the department or opt for an internship at a public institution or a private company. All topics must be approved in advance by the course coordinator. The project must demonstrate that a student understands and is capable of employing research methods and has command of the subject, must show evidence of perspective on the topic, and must show that appropriate methodology has been understood and applied. The deliverable for the project is a report (with appended code if applicable) that, in addition to the above, should show that the student is capable of writing a professional technical document.

CS 596 Research Topics in Computer Science
3-3-0
This course provides an introduction to the primary and secondary sources of information in the computing science literature. Faculty discuss their own research objectives and present an overview of research issues in the major subject areas of Computer Science. Students are required to submit and present a paper on a topic that relates to their research.

CS 597F Graduate Seminar
6-0-0
Students are expected to participate in the departmental seminars and give at a minimum two presentations (one outlining their thesis proposal, and another one about their thesis work). All Master's students are normally expected to enrol in this course in their first year in the program. Students will not receive credit for both this course and CS 598 at the same time.

CS 599 Master's Thesis
24-0-0

## MSc in Physics

## Program Overview

The Master of Science (MSc) program is designed to give students a much deeper appreciation of physics while at the same time training them to become independent researchers and scientists. Graduate supervision is available in a wide variety of disciplines including astrophysics, exoplanetary science, theoretical cosmology, gravitational theory, and particle physics.

## Master's in Physics ( 45 credits) CONPHY

Students who have completed a BSc degree in physics with at least a B average will be considered for admission into the graduate program. Students who have completed only a major in the subject may be required to take additional courses at the Master's level. Students who have been admitted will be assigned a supervisor by the Chair of Physics and Astronomy. The student's research interests will be taken into consideration when a supervisor is assigned. Current areas of research in the department include astrophysics, gravity and cosmology, particle physics, and theoretical physics.

## Course Requirements (MSc):

The MSc degree requires the successful defense of a thesis ( 15 credits), satisfactory participation in the seminar series (18 credits), and the completion of a minimum of 12 credits in course work. Course selection is determined in consultation with the thesis supervisor and departmental chair. All MSc students must make an oral presentation and defense of their thesis before graduating. The normal period for completion of the M.Sc. degree requirements is two academic years (five semesters). The minimum number of credits required to complete the program is 45 .

## List of Courses

## PHY 561 Quantum Mechanics I

3-3-0
Foundation of quantum mechanics; Schroedinger equation, angular momentum, central potentials, harmonic oscillator, hydrogen atom.
Students who have received credit for PHY 461 may not enrol in this course.

## PHY 562 Quantum Mechanics II

3-3-0
Matrix mechanics and applications of quantum mechanics to various branches of physics. Perturbation theory, scattering, molecular applications, and Hartree-Fock theory.
Students who have received credit for PHY 462 may not enrol in this course.
PHY 564 Condensed Matter Physics 3-3-0
Topics to be studied include the one-electron theory of solids, energy bands, lattice vibrations, transport theory, and thermodynamic properties.
Students who have received credit for PHY 464 may not enrol in this course.

## PHY 565 Electromagnetic Theory <br> 3-3-0

Static and dynamic electric and magnetic fields: Maxwell's equations and solutions involving plane waves. Covariant formulation of electromagnetic field theory.
Students who have received credit for PHY 475 may not enrol in this course.

## PHY 566 Theoretical Topics

3-3-0
Topics to be studied will be selected from the areas of special and general relativity, particle physics, astrophysics, and cosmology. In particular, the covariant nature of physics and various physical symmetries will be investigated.
PHY 567 Advanced Statistical Mechanics
3-3-0
Derivation of the laws of thermodynamics from statistical principles. Quantum statistics, arbitrarily degenerate and relativistic perfect gases, transport theory, thermodynamic fluctuations, and low-temperature physics will also be studied. Students who have received credit for PHY 467 may not enrol in this course.
PHY 571 Advanced Quantum Theory 3-3-0
Topics to be studied include: Path integral and second quantization approaches to non-relativistic quantum mechanics. Feynman rules and diagrams. Relativistic quantum field of spin-zero particles.
PHY 572 Particle Physics $\quad$ 3-3-0
Quantum field theory of spin $1 / 2$ and spin 1 particles will be introduced. Topics include: renormalization and the renormalization group; quantum electrodynamics and quantum chromodynamics; the Standard Model of particle physics; overview of string theory.
PHY 573 Advanced General Relativity
3-3-0
Topics to be studied include: differential geometry, Einstein equations, junction conditions, shell and dust collapse, gravitational waves, and black hole thermodynamics.
PHY 574 Cosmology $\quad$ 3-3-0
Topics to be studied include: Cosmology, inflation, dark energy, compact objects, relativistic fluid dynamics, gravitational lensing, and gravitational waves.
PHY $575 \quad$ Numerical Methods \& Simulations $\quad$ 3-3-0
This course will cover selected topics in High Performance Computing including cellular automata, finite element methods, molecular dynamics, Monte Carlo methods, and multigrid methods, with applications to classical fields, fluid dynamics, materials properties, nanostructures, and biomolecules.

## PHY 576 Stellar Astrophysics I

3-3-0
An introduction to the properties of stellar atmospheres and interiors. The equations of stellar evolution, nuclear energy generation, radiative transport and stellar model building will be studied. Further topics include the formation of starts, and the physics associated with supernovae, white dwarfs, neutron stars, and pulsars.
$\begin{array}{llr}\text { PHY } 577 & \begin{array}{l}\text { Many-Body Quantum Theory in } \\ \text { Condensed Matter Systems }\end{array} & \text { 3-3-0 }\end{array}$
The following topics will be studied: Green's functions at zero and finite temperature; the interacting electron gas; the Hubbard model and strongly correlated systems; electron-phonon interaction; superconductivity and superfluidity.
PHY $578 \quad$ Selected Topics in Astronomy \& Astrophysics
Topics to be determined in consultation with prospective students.
PHY 579 Selected Theoretical Topics

PHY 580F Graduate Seminar I
9-0-0
Students are expected to participate in the departmental seminar series and to make a presentation on either their own work or on a research-related topic. All M.Sc. students are normally expected to enrol in this course at the beginning of their first year of studies.
Offered alternate years with PHY 581.

## PHY 581F Graduate Seminar II

9-0-0
Students in the second year of their degree program are expected to participate in the departmental seminar series and to make a presentation on either their own work or on a research-related topic.
Offered alternate years with PHY 580.
PHY $586 \quad$ Stellar Astrophysics II
3-3-0
A detailed study of the physics that determines the evolution of stars during all of their possible phases. This includes radiative hydrodynamics and atmospheric modeling, specialized equations of state, and the nuclear physics needed to understand the various channels that lead to the creation of the heavy elements. The physics of neutrino production and detection will also be investigated. These topics will form the basis for a study of the evolution of supernovae and other highenergy phenomena in stellar astrophysics.
PHY 600 Thesis Research Dissertation
15-0-0
Each student is required to carry out independent, publishable research that is presented in the form of a thesis. The research is conducted under the supervision of a faculty member. The thesis will be evaluated externally and must be successfully defended in a meeting for which the presentation of the thesis results is open to all members of the academic community.

## Services and Facilities

## Student Services

## Mission Statement

Student Services understands Bishop's University to be a learning community in which the student is the centre of our educational mission.

We commit ourselves to work together with students and with all partners, both teaching and non-teaching, to enhance the quality of student life so that each student may experience the fullest personal growth, enjoy a learning environment that is just, mutually respectful, and strives for academic excellence.

We support an atmosphere where both freedom of expression and civility are powerfully affirmed. Further, we endorse a disciplined community where individuals accept their reciprocal obligations for the common good; where well-defined procedures of governance guide behaviour; where service to students is encouraged; and where a caring community supports the well-being of each individual.

Finally, we support the University as a community in which the heritage of Bishop's is remembered, the contribution of students is honoured; where the rituals affirming tradition are acknowledged and the procedures governing change are widely shared.

## Dean of Student Affairs

As a Senior Administrator and Officer of the University, the Dean oversees the overall coordination and quality of student services (Athletics, Campus Ministry, Counselling Services, Student Accessibility and Accommodation Services, Career \& Employment, Health Services, Residence Life, Student Leadership Development, and Security), and certain ancillary services (Sports Centre, the Old Lennoxville Golf Course and Parking).

The Dean of Student Affairs is responsible for all matters of student engagement, conduct, for ensuring respect for the Charter of Student Rights and Responsibilities, and for the application of sanctions to students who are in violation of the Charter. Working closely with the Students' Representative Council, the role is at times that of an advisor and partner on projects initiated either by the University or by the student government. At other times the role is to ensure the respect of the University's policies and to approve the use of University facilities for major student activities and events.

The Dean of Student Affairs is available to meet with students to discuss issues of University policy, to hear suggestions for the improvement in the quality of campus life and to receive complaints about areas under the jurisdiction of the Dean. The office of the Dean of Student Affairs is located in the Marjorie Donald building, room 244.

## Co-curricular Record (L.E.A.P. Program)

The Leadership and Extra-Curricular Activity Profile (L.E.A.P.) is an official university document designed to verify and validate a student's leadership positions, organizational memberships, and other significant involvement in activities outside of the classroom not documented on the academic transcript. The University endorses this certificate as an official document when signed by the Dean of Student Affairs. Enrollment in the L.E.A.P. program is completely voluntary and must be initiated by the student. L.E.A.P. provides students a credible official listing of their accomplishments outside the classroom to complement an academic transcript and resume for applications to graduate school and prospective employers. For more details, visit www. ubishops.ca/leap or contact the LEAP Coordinator at (819) 8229600 ext. 2766 . The office is located in the Marjorie Donald building, room 243.

## Ombudsperson

The major role of the Ombudsperson is to receive inquiries and complaints from any member of the University community who believes they have suffered some form of injustice, whether it has to do with academics or other matters. The Ombudsperson can normally give advice about where to go to have an issue looked into or reconsidered, or, after determining that all normal avenues of recourse and appeal have been exhausted, will investigate the factual basis of a complaint and, if appropriate, attempt to facilitate a solution using either formal or informal procedures. The Ombudsperson may also recommend changes to existing rules, policies, regulations or procedures, to make them more fair, or more clear and effective.

The Ombudsperson operates independently of all other offices in the University. Initial inquiries to the Ombudsperson are completely confidential until the complainant agrees to allow the Ombudsperson to act on the matter, at which point the matter remains confidential, restricted to those with a need to know.

The Ombudsperson must investigate all sides of a particular problem, must maintain a neutral stance throughout the investigation, and must strive to achieve solutions which are as fair as possible given the circumstances involved. At the end of an inquiry, the Ombudsperson will explain the nature of the chosen solution to those who initiated the complaint or, where the complaint has been found to be not justified, explain to the individual or groups involved the reasons for not continuing the investigation.

From time to time, the Ombudsperson may act as a mediator between individuals or groups of individuals in the University community who have been unable to resolve a conflict, particularly where no procedure exists for the resolution of such matters.

Please see the University website for further information, including the complete terms of reference for the Ombudsperson, and, especially, the Charter of Student Rights and Responsibilities.

## Athletics and Recreation

Bishop's University offers its students and staff a diversified athletic program. It is divided into three categories, offering levels of competition and instruction to meet a variety of individual interests and needs.

1) Inter-university Athletics. Bishop's is a member of $U$ SPORTS, the RSEQ and CUFLA. They compete in Football, Men's and Women's Rugby, Women's Soccer, Men's and Women's Golf, Men's and Women's Basketball, Men's Lacrosse, Women's Ice Hockey and Cheerleading. More information about the Gaiters can be found at www.gaiters.ca or on social media using @BishopsGaiters or \#GaiterNation
2) Intramural Sports provides another level of competition in men's, women's and co-educational leagues and individual sports such as badminton, ball hockey, basketball, broomball, touch football, golf, ice hockey, water-polo, soccer, softball, squash, tennis, and volleyball. More details are available at www.gaiters.ca/intramurals.
3) Recreational Instructional Program offers a wide array of non-competitive, life-enhancing, instructional activities such as aerobics, yoga, and martial arts. Brochures provide details about the Fall, Winter and Spring programs; these are available at the beginning of each session. For more information on courses, please call 819-822-9600 ext. 2669 or visit www. gaiters.ca/recreation.

## Athletic Facilities

The newly-renovated John H. Price Sports and Recreation Centre houses two double gymnasiums for basketball, volleyball, and badminton, with bleachers seating 700 spectators; a new $800-$ seat arena; a six-lane, 25 -metre swimming pool equipped with a one-metre diving board; and a 4,000 -square-foot fitness room. There is a spectators' level with a cafeteria/lounge leading to an exterior outdoor patio. The complex provides the opportunity for sport and recreational experience to all members of the university community and plays a vital role in fulfilling the concept of total education at Bishop's. Other campus sports facilities include Coulter Field Stadium, a lighted 1,500 -seat stadium with a FieldTurf® synthetic surface; four outdoor tennis courts, a 9 -hole golf course, an FIS (International Ski Federation) certified crosscountry ski trail and a number of playing and practice fields.

Specific information concerning athletics can be obtained from:
Bishop's University
2600 College Street
Sherbrooke, Quebec J1M 1Z7
Visit our website at: www.gaiters.ca
819-822-9600 ext. 2669

## Sports Medicine

The Sports Medicine clinic provides services to our studentathletes, the general student population and community patients alike. This arrangement and quality of care is rarely found in Canadian universities. The clinic benefits from the most modern equipment available. In addition to athletic therapy, there is also osteopathy, physiotherapy and massage therapy available. More details can be found at www.gaiters.ca/sportsmed.

## Campus Ministry

The Campus Minister is available for counselling \& pastoral care. The campus ministry seeks to foster faith, spirituality, and social justice. The Campus Ministry sponsors speakers, discussion groups and outreach programs.

Campus Ministry is located on 2nd Floor, Marjorie Donald Building, Room 246, (819)-822-9695.

## Counselling and Psychological Services

A variety of mental health resources and professionals are available to work with you to assess your wellness needs, from self-directed programs to workshops, group programs and individual therapy. Individual appointments may be scheduled from Monday to Friday, 8:30am - 4pm.

Counselling \& Psychological Services is located on 2nd Floor, Marjorie Donald Building, (819) 822-9695

## Empower Me (Toll Free: 1 (844) 741-6389)

For direct connection to counselling or coaching support. Empower Me is a mental health services offering counselling in person, by telephone by video counselling, or by e-counselling. You can also speak to a life coach about subjects like personal performance, wellbeing, and relationships. Empower Me is available $24 / 7$ and is available free to charge for students who are members of the Student Health Plan. Crisis support through Empower ME is available to all students regardless of your health care plan.

## Career Counselling Services

The primary mandate of Career \& Employment Services is to assist students in all aspects of career development; career exploration, decision making, career planning, the development of job search strategies, and researching current employment opportunities. Assistance is also provided to obtain Canadian off-campus work permits. Educational, career, and employment recruitment activities are also organized on-campus throughout the school year. These events are regularly posted on the Career and Employment website along with full-time, part-time, summer, and work abroad opportunities.

Career Counselling Services is located on 2nd Floor, Marjorie Donald Building, (819) 822-9695.

## Student Accessibility and Accommodation Services (SAAS)

SAAS helps ensure that all students with disabilities have equal access to programs at Bishop's University. We arrange for reasonable accommodations in accordance with the Quebec Charter of Human Rights and Freedoms, the new Act Respecting Equal Access to Employment in Public Bodies and the United Nations Convention on the Rights of Persons with Disabilities.

The mandate of Student Accessibility \& Accommodation Services is to work with staff and faculty to remove barriers that may interfere with students' academic success. The logic that underpins Bishop's support for student accommodations is directed by a fundamental need to minimize potential challenges that may interfere with students' academic progress. Bishop's embraces the responsibility to support all students by providing academic accommodations that maximize opportunities for students to demonstrate their knowledge and skills.

Services located in the Marjorie Donald Building, 2nd floor, (819) 822-9695. Extraordinarily, SAAS will be located in the temporary modular space for the fall 2020 semester.

## Indigenous Support Services

We value the respectful recognition of Indigenous history, culture, traditional values, stories and healing practices that support counselling alongside the use of western therapeutic approaches. The Indigenous Support and Liaison Advisor support Indigenous students and helps facilitate cultural practices and traditions.

Location: CEN 10, Centennial Building, (819)-822-9600 \#2544.

## Sexual Assault Support

The Sexual Aggression Response Coordinator is a member of the counselling team and provides support and counselling to any student exposed to sexual violence. The SARC also provides prevention programing and education to campus while liaising with the off-campus community. The SARC is training in receiving disclosures and supporting students through the process of reporting sexual violence.

Location: 2nd Floor, Marjorie Donald Building (819)-8229600 \#2695.

## Health Services

The Champlain-Bishop's Health Service is located in the John H. Price Sports Centre and offers health care to all full-time students and any part-time student who has paid the student services fee. Staff and faculty may use the service for a small fee. The staff at Health Services will do everything possible to treat illnesses and injuries quickly so that class absences will be kept to a minimum.

Some of the services offered include diagnoses and treatment of acute and chronic illness, emergency care, routine physicals, sexually transmitted infection testing and information, pregnancy tests, contraception, wart treatment, allergy shots and certain vaccinations. This is only a partial list of services offered; please inquire about any other medical needs.

The staff includes nurses, physicians, a nutritionist, and a secretary who are available Monday through Friday. Students wishing to see the nurse will be seen in order of arrival. To see the doctor, it is recommended that you make an appointment. Emergency situations will always have priority.

Records are strictly confidential. No information is released, for any reason, without the student's consent.

Health Services are supported by student fees, therefore, there is no charge to use the service. However, the doctor's services and the cost of any tests required are only paid by health insurance or provincial medicare plans.

Quebec students who do not have their Medicare cards, or who present cards that have expired, will be required to pay the full cost of services immediately.

Canadian students from another province are fully covered by their provincial medicare plans provided they:

1) inform the Ministry of Health in their home province that they are studying in Quebec before they leave home;
2) have their Provincial Medicare card with them when they come to see the doctor. If the card is unavailable or has expired, the full cost of services must be paid immediately.
International students (including Exchange students) must subscribe to the Health and Hospitalization Insurance plan offered
through the University. Details of this plan can be obtained from the Business Office. The plan entitles the student to full medical coverage both here and at local hospitals.

International or exchange students from France, Denmark, Sweden, Norway, Finland, Luxembourg, and Portugal are eligible to apply for a Quebec Medicare card. This should be done as soon as possible after their arrival in Quebec. Information on how to apply can be obtained from Health Services or from the International Student Coordinator.

Anyone requiring further information about Health Services should telephone 819-822-9600, ext. 2696, or at www.ubishops. ca, Life at Bishops, Health Services.

## Residence Life

At Bishop's University we believe that the residence experience is an integral part of the university experience and thus guarantee all of our first-year degree students, who meet the required deadlines, a place in residence. Over $70 \%$ of our incoming class chooses to live in residence and each year $28 \%$ of our current residence students return for a subsequent year.

Bishop's University residences can accommodate 610 students in Traditional Style, Bog Style and Suite Style Residences. These three choices provide students with the opportunity to choose the residence that suits their individual life style. Mackinnon and Norton/Pollack are our traditional style residences accommodating students in both single and double configurations. Kuehner, and Abbott are our newly renovated Bog Style Residences. These Bogs accommodate students in single rooms and double rooms with adjoining bathrooms. Paterson Hall accommodates four students per suite, each with their own private bedroom, common kitchen, living room and two full bathrooms. All of our residences have mandatory meal plans.

An important part of the Residence life program is the support that students receive while living in residence. This support comes from a well-trained staff of upper year students who are employed as Resident Assistants. They are in the residences to help students with their transition to university life, and to promote a community atmosphere that focuses on mutual respect and consideration for all members of the residence community.

Students can also take advantage of living in one of our Living Learning Communities. We have a leadership community and a community to promote sustainable living that we call our ECO Floor and in fall 2018 we will be opening our first sports/wellness oriented community. If you are interested in applying to live in one of these communities visit our website for all the details.

Students will receive information about how to apply to residence in their admissions package and can go online to apply at that time. We encourage students to return their application as soon as possible as the priority for residence is based upon the date we receive the application.

For more specific information please feel free to contact Residence and Conference Services at:

## Residence and Conference Services

Bishop's University
2600 College Street
Sherbrooke, Quebec J1M 1 Z7
Tel: 1-819-822-9600 ext. 2685
Fax: 1-819-822-9615
e-mail residence@ubishops.ca

## Off-Campus Housing Service

The Off-Campus Housing Service provides students with a list of suitable housing in the community. The lists are available on the Bishop's University website: www.ubishops.ca; simply click on Life at Bishop's and you will find Off-Campus Housing. You may also contact the office if you have any questions at 819-822-9600 ext. 2685 or via e-mail at offcamp@ubishops.ca

Those who would like to add housing opportunities to our list may contact us as above, or by fax at 819-822-9615.

## Academic Facilitation

Adjusting to university can be both exciting and overwhelming. Academic Facilitation is about developing skills that can help you become more successful in school and life in general. You'll work closely with an Academic Facilitator as you move towards your educational goals and learn to be accountable for your results. Your Facilitator can help set you up for educational success by providing you with study skills, time management advice, and study-life balance strategies. For additional information about Academic Facilitation, please contact the office at (819) 822-9695 or visit the Academic Facilitator's office, located in the Marjorie Donald Building, 2nd floor.

## Student Government and Student Activities

## Students' Representative Council (SRC)

The Bishop's University Students' Representative Council, founded in 1893, is an autonomous organization representing full-time and part-time students. The SRC represents students on most committees at Bishop's including Academic Senate, and the University Board of Governors.

The SRC provides numerous services and events for students. Through the VP Student Life and VP Academic offices, the SRC funds both academic and non-academic clubs. The SRC organizes Fall and Winter Orientation Week, Winterfest and the Grad Formal. The SRC offices are located on the first floor of the Student Union Building (mailbox level) and are open daily.

The SRC is governed day-to-day by the Executive Cabinet composed of the President (srcpres@ubishops.ca), VP Academic (srcacad@ubishops.ca), VP Student Life (srcstu@ubishops.ca), VP External (srcexternal@ubishops.ca, the Director of Finance (srcdfo@ubishops.ca), the Director of Events (srcdoe@ubishops.ca), and the Director of Communications (src@ubishops.ca). The Executive Cabinet plus six Student Senators, two General Councilor's, a Health and Wellness Representative, an Equity Representative, an Environmental Sustainability Representative, an International Student Representative, an Ethic Diversity Student Representative, an Indigenous Student Representative, a First Year Representative and an On Campus Representative make up the voting membership of the General Assembly. This large group convenes twice a month. Additionally, the SRC employs two General Managers: General Manager Administration and General Manager Operations, the Secretary General, and several student positions (academic managers and peer academic mentors, communications staff, Clean Community Team members, Gait managers and staff, etc.).

## Mandate

The purpose of the Bishop's University SRC shall be:
i. To act as the official representatives of the students of Bishop's University in their relations with the administration of Bishop's University and the official representative of the students of Bishop's University in their relations with any other private or public organization including national, provincial, and international student organizations.
ii. To promote the welfare and interests of the Student Association (SA) including the promotion of artistic, literary, educational, social, environmental, recreational and charitable activities for the advancement of the interests of the members of the SA and the Bishop's community. The SRC shall also promote among members of the SA a sense of responsibility and cooperation in the achievement of these objectives.
iii. To safeguard the rights of the individual members of the SA, as given in the Bishop's University Charter of Student Rights and Responsibilities and as given in the Canadian and Quebec Charters of Human Rights and Freedoms.

## Representation

Most committees at the university have at least one student representative. It is the role of the SRC to ensure that student concerns are heard. The SRC also represents students on Senate (the highest academic body at the university) and on the Board of Governors (the highest non-academic body).

## Clubs

There are more than 20 student clubs within the SRC. These include both charity/volunteering based clubs as well as social clubs. See www.busrc.com/clubs for a full list.

## Academic Societies:

There are more than 25 student-run academic societies within the SRC. These can represent different departments, programs or academic interests. See www.busrc.com/clubs for a full list.

## SRC Student Associations:

There are more than 7 student associations within the SRC. These associations represent groups of students based on culture, race, ethnicity, religion and/or sexual orientation. See www.busrc.com/ clubs for a full list.

## SRC Sports:

There are more than 15 sports groups within the SRC. These included both competitive teams and leisure sports. See www. busrc.com/clubs for a full list.

## SRC Publications:

The Student Handbook - Distributed free to first-year students and sold to all others. The Student Handbook is a great way to stay organized. It is especially useful for first year students, offering information on Bishop's University policies, and helpful hints on life at Bishop's
The Mitre - This collection of poetry, stories, artwork, and photographs is the oldest university literary publication in Canada (1893). It is produced annually and collects submissions from students, faculty, alumni, and the local community.

The Quad - The Bishop's Yearbook is one of the treasured souvenirs of the university. It is published each year and lovingly compiled and edited by a team of students.
BUSRC Website - www.busrc.com allows for direct communication between students and executives via an open forum while also offering students information on upcoming events, activities, clubs, job openings, elections, etc. Check it out at www.busrc. com.
The Dish - delivered to student email boxes Monday and Thursday offers a glimpse of daily campus and community events.

## SRC Operations:

## BU Lounge/The Gait

The BU Lounge is open in The Gait space on Monday - Friday from 8:30 a.m. on days when there are no special events planned. This is a relaxed spot to bring your lunch, do homework, and meet friends.

The Gait is the on-campus pub open each Tuesday, Thursday, and Saturday, and it is also available for special events.

With a 365 -person capacity, the Gait provides employment for students, as well as providing a safe environment for dancing and drinking on campus. The Gait is located on the ground floor of the Student Union Building and is operated by students for students.

## SRC Awards

## SRC Merit Award

Chosen by SRC Executive, goes to a student/s who has rendered outstanding service to the SRC in numerous areas.

## Joseph E. Cassar Award

Chosen by the SRC General Assembly and given to the student who has contributed the most to the SRC during the past year.

## Ray Lawson Award

Given to the returning student who, in the opinion of the SRC General Assembly has contributed the most to the life of the university.

## Michel Fontaine Experience Award

Given to the student chosen by the SRC Executive who exemplifies the Bishop's Experience through campus leadership, athletics and/or community involvement. The SRC podium was made by Michel Fontaine's father in his memory.

## Joy Chandler Community Involvement Award

Named in honour of a previous SRC manager, given to a person who helps bring BU students and the community together. This is usually given to a community member but can be given internally.

## Joan \& Alex Paterson Award

The selection Committee for this award, is comprised of the Dean of Student Affairs and the SRC Executive Cabinet. Awarded to a graduating student who during his or her years at Bishop's University, contributes the most to volunteer work and activities in the off campus community.

## Golden Mitre Award

The Golden Mitre Awards are the highest non-academic honour that graduating students can receive. Recipients are elected by popular vote of the prospective graduating class.

## Julie Bradshaw Memorial Award

Established in 2003 in memory of Julie Bradshaw '80 and given to the Golden Mitre winner with the highest number of votes.

## Purple Letter Award

This award is given to those students who have made a consistent contribution to the life of the university and community and who might not otherwise be recognized for their efforts. Award winners are nominated by members of the university and the community.

## Olga Reid Memorial Award for Journalism

Awarded annually to the student journalist or writer who, in the opinion of The Campus Editorial Board, has written the best article or series during the academic year.

## Outstanding Club Head Award

Given to an SRC Club Lead (or Leads) who has shown dedication to not only the club, but to the greater Bishop's community.

## Club Community Impact Awards:

Each year, two clubs are given these awards based on the change they have made in the Bishop's community and/or the Lennoxville community.

## Other Services and Facilities

## Doolittle's Co-op

Doolittle's Co-op is a member of the Coopsco network. Its mission is to offer the products that students need at a competitive price. The Co-op will open in the Student Centre in August 2020, and is also available online. The store carries required textbooks and Course packs as well as reference materials, office supplies, art supplies, crested clothing and a selection of books. Doolittle's Coop is the simple and convenient solution for Bishop's University students.

## Campus Tours

There is no better way to see if a university is the right fit for you than to visit the campus. This is very simple to do at Bishop's as we offer personalized tours almost every day of the week!

Your student ambassador will give you a complete tour of the campus and introduce you to life at Bishop's. On weekdays, you will meet with a Recruitment and Admissions Officer and during the academic year we will provide an opportunity to attend a class, talk to a professor and/or meet with a student services counsellor. If the weekend suits you better, we will ensure that you get a comprehensive tour of our beautiful campus.

You may book a tour by clicking on the following link: http:// www.ubishops.ca/future-current-students/campus-tours-events/ or by calling 819-822-9600 $\times 2681$. The best time to see a typical day at Bishop's is on a weekday from mid-September through mid-June. Please schedule your tour at least four days in advance of your arrival.

For more information, please contact:

## The Bishop's University Recruitment Office

Toll-free tel: 1-877-822-8200
Tel: 819-822-9600 ext. 2681
E-mail: recruitment@ubishops.ca

## Information Technology Services

ITS provides a range of technology services for the university community through its two divisions.

The ITS Helpdesk is located on the ground floor of the Library Learning Commons and is available to answer computer, software, and network related questions from students, staff, and faculty. Additionally, the Helpdesk and Client Services team are responsible for supporting the 75 multimedia classrooms, 1300 computers, and myriad of other technology items on campus.

The Cole Computer Centre maintains the servers, network, back-up and web/business applications for the university. A highspeed wired network serves administrative and academic offices, research, library, residence and student lab needs. Wireless connectivity is provided across campus in all academic and most residential and recreational spaces. The Centre also provides management, development and support for a general suite of desktop applications, institutional data and business processes.

ITS provides part-time employment and experiential learning opportunities for approximately 10 students each year.

## Cormier Centre of International Economics

The Cormier Centre was founded in 1989 with a generous gift from Mr. George Petty, CEO of Repap, a Canada-based, multinational paper corporation. The Centre's original mission was to promote research in international economics, to study the impact of economic policy on business, and to contribute to economic information, communication and education. In the early years, the Centre sponsored conferences and visiting scholars, supported research projects and promoted academic/business joint projects with an international orientation. In recent years, the Centre's focus has shifted towards the funding of low-budget, student-centered initiatives, such as: (a) the funding of student travel to Montreal to enable attendance at academic events related to international economics, (b) the funding of Skype-based, international-economics-related exchanges between our students and academics worldwide, and (c) the funding of prizes in studentcentered essay contests related to international economics. The annual budget for such endeavors is modest, and so the requests for funds are considered on a competitive basis only.

For information, contact: Dr. Robert Sproule, e-mail: rsproule@ubishops.ca.

## Cultural Affairs

Superb facilities support a dynamic cultural life on the Bishop's campus. The Florence Foreman Art Gallery brings performances and exhibitions of international calibre into the campus community throughout the academic year. Student participation in several aspects of the arts, including mounting productions is encouraged in the venues of Bandeen Recital Hall and the Turner Studio Theatre. Work-study programs in all the cultural venues offer hands-on experience in virtually every aspect of the cultural industry: promotion, technical production, marketing and arts management. In addition, there is plenty of opportunity for volunteer participation.

Artists who have recently visited campus include the late Gord Downie, Adam Cohen, Leahy, The Gryphon Trio, The RUBBERBANDance Group, Berlin's 17 Hippies, Holly Cole, Theatre of Early Music and The East Village Opera Company.

Festivals of student-directed and written plays, an extensive schedule of musical productions, and a wide-ranging series of visiting lecturers add richness to cultural life on campus.

## Peter D. Curry Wildlife Refuge

Three-hectares required for wetland development, as well as an additional eleven hectares of surrounding uplands, as wildlife habitat, are used exclusively for conservation on the Bishop's campus. It serves as a field laboratory and observation area for biology, environmental studies and geography students, as well as a focus for local birdwatchers and naturalists. Named after Bishop's alumnus and donor Peter D. Curry, in recognition of his commitment to both conservation and education, the wetland was developed with the co-operation of Ducks Unlimited.

## Daycare

The Panda Daycare Centre, which is located on the Bishop's campus, has space for 140 children from newborn to 5 years of age. Interested parents are urged to make application as early as possible. For information, telephone 819-346-1414.

## The Dobson-Lagassé Entrepreneurship Centre

Established in 1998, the Dobson Lagassé Centre's mission is to promote the teaching, knowledge and interest in entrepreneurship amongst Bishop's University students, provide value-added services to entrepreneurs in the Eastern Townships that will help successfully grow and develop their businesses and act as a conduit between entrepreneurs in the Eastern Townships and Bishop's University, its students, its professors, and its recent graduates, to the greater benefit of all these groups. The Centre also provides guidance and services for university student members of the worldwide ENACTUS entrepreneurship Association.

The Centre works with students throughout the university, in all division, and is mindful of the fact that entrepreneurs come from all academic areas and a diversity of pursuits and backgrounds. Through variety of programs and initiatives, the Centre enables experiential learning by students and the acquisition of an invaluable entrepreneurial mindset centered on collaboration, communication, leadership and problem-solving that applies both to starting and running a business or working in an organization of any kind.

The Centre also provides an important link between students and the local business community. The Centre runs a mentorship program for businesses in growth phase that relies on a network of seasoned business people who are matched with businesses who can use their insight and support.

For more information visit our website at: www.dobsonlagasse.ca or contact us directly at:

## Dobson-Lagassé Entrepreneurship Centre

Bishop's University
2600 College Street
Sherbrooke (Qc) J1M 1Z7
Tel.: 819-822-9600, ext. 2701
Email: dobsonlagasse@ubishops.ca
Facebook: www.facebook.com/CentreDobsonLagasse

## Eastern Townships Resource Centre

The ETRC's mission is to act as a resource centre for the study of the Eastern Townships of Quebec. While the Archives Department concentrates on the acquisition of private archives related to the English-speaking community, the Centre's mission, mandate and ongoing activities are meant to be inclusive of all linguistic and cultural communities present in the Eastern Townships.

## Preserving the Region's Heritage

As one of the top accredited archives in Quebec, the Eastern Townships Resource Centre preserves the documentary heritage of the Eastern Townships and serves as an archival expertise resource for local heritage organizations.

Accredited by Bibliothèque et Archives nationales du Québec, the ETRC Archives acquires, processes, preserves and gives access to archival fonds and collections that illustrate the development of the Eastern Townships’ English-speaking community. Thousands of documents such as diaries, letters, minute books, photographs, postcards, maps, plans and audio-visual material are made available to researchers. Assistance is also provided to genealogists tracing their family roots.

## Promotion of the Region's History

The ETRC promotes the Townships' rich and unique history through public lectures, colloquia, and exhibitions. The Centre offers educational materials for teachers and its own publication, the Journal of Eastern Townships Studies (JETS). As a longstanding and proud member of the Bishop's community, the ETRC creates bridges between Bishop's and the surrounding communities. On a regular basis, the ETRC offers internship and employment possibilities for Bishop's students.

Located in the Old Library (McGreer Hall), the ETRC Archives Department is open from 8:30 a.m. to 12:00 p.m. and 1:00 p.m. to $4: 30$ p.m. Monday through Friday. For information about the archives contact our archivist, Jody Robinson, ext. 2261. For information about Centre activities contact: Fabian Will, Executive Director 819-822-9600 ext. 2647.

## Financial Aid

The Financial Aid Office is located on the 2nd floor in McGreer and provides students with information and assistance in applying for various federal and provincial government loan and bursary programs. Further information can be obtained from the University's Enrollment Service Office at 819-822-9600 ext. 2655 or 2205.

## Florence Foreman Art Gallery

As a vibrant part of university life at Bishop's University, the Foreman Art Gallery serves as a strong link to the community of Lennoxville and Sherbrooke as well as an active site of scholastic research about contemporary art and curatorial practice. The Gallery is named in honour of the late Florence May Foreman, formerly of Vancouver B.C., who left to the University the largest bequest in its history.

The FOREMAN ART GALLERY of Bishop's University is a space for thinking and producing knowledge about contemporary art and its relation to the global and local communities we share. The Gallery strives for excellence as it researches, exhibits, and documents contemporary art by emerging and mid-career professional artists in innovative curated contexts. These exhibitions are
presented with the objective of provoking public debate on cultural and social issues for an expanding audience that includes our local University community, a larger art community within Quebec and Canada, as well as broad and diverse general and virtual audiences.

The Foreman Art Gallery's COMMUNITY ART LAB positions itself on the cutting edge between art, education, and community development with the goal of exploring how these worlds collide and interact with one another. Through its interventions, satellite activities, and public events, the Laboratory stimulates exchanges and discussions in order to disrupt the hierarchy of knowledge and to enrich community life.

The Foreman Art Gallery shows the work of professional visual artists in innovative ways, focusing on thematic curated exhibitions part of the following series: Social Currents (thematic curated group exhibitions): New Voices (highlight on an emerging artist), New Publics (exhibitions for targeted audiences) and Carte Blanche (regionally-focused curated group exhibitions). The gallery also produces a graduating fine art student exhibition each spring.

Since 1998, 60 bilingual exhibition booklets, self-guided tour booklets and leaflets, 4 edited catalogues, and 10 group and solo exhibition catalogues have been produced. Of these are noteworthy examples: Irene F. Whittome: Conversation Adru (winner of a Graphika prize, 2007): Denyse Thomasos: Epistrophe (winner of a Graphika prize, 2007): and At the Crossroads of Art and Medicine (winner of a Graphika Prize 2009).

Admission to the gallery is free. The Foreman Art Gallery is located adjacent to the lobby of Centennial Theatre. Hours: Tuesday-Saturday, from 12:00 p.m. to 5:00 p.m.

## Gentiane Bélanger, Director/Curator

819-822-9600, ext. 2687
Gallery: 819-822-9600, ext. 2260
Fax: 819-822-9703
Website: www.foreman.ubishops.ca
Bishop's University also has a permanent art collection of 400+ works, with an emphasis on Canadian art from the 19th and 20th centuries. The Bishop's University Art committee is chaired by the University Librarian, and is composed of representatives from staff, faculty, students and community members. Art works are displayed in outdoor and indoor venues, buildings and offices across the campus. Catalogues showcasing some pieces of the collection are available from the Art Collection Technician: Merrylou Smith (819) 822-9600, ext. 2561

## International Exchange Program

http://www.ubishops.ca/future-current-students/student-exchange-and-study-abroad-programs/exchange-manual/ Bishop's University encourages all students who qualify to spend a semester or two abroad at one of our 700+ linked campuses around the world. Successfully completed pre-approved course credits taken on exchange are transferred to your Bishop's degree. Marks/grades obtained at the host university are not included in the calculation of your cumulative average at Bishop's upon your return because of different assessment and grading schemes. A "Pass" or "Fail" will appear on the Bishop's transcript for each of the courses taken along with the number of credits obtained.

Students may continue to receive financial aid for which they are eligible at Bishop's. Students on Bishop's scholarships need to
maintain an equivalent level of academic excellence at their host campus to receive their scholarship in the semester following their exchange. Students with loans from the USA will need to select their host campus from international Title IV partner universities.

To be accepted into the Exchange Program, Bishop's students must meet the following criteria:

- obtain and maintain a $70 \%$ cumulative average in one year of full-time study ( 30 credits) in a degree program, prior to departure to a host university
- assume travel and living costs, health insurance, and personal expenses, during their exchange abroad
- receive written permission to participate from the Dean and Chair of their respective academic program
- demonstrate proficiency in the language of the host university if necessary
Tuition and fees (for 15 credits per semester) and student service fees are payable to Bishop's, accommodation and meals are paid to the host university. Additional criteria may pertain in some exchanges. Students planning to apply are asked to consult with the Exchange Programs Coordinator (McGreer 213), their academic program Chair and then with their Dean. Students must obtain prior approval for all courses to be taken at the host university by their program Chair at Bishop's to participate in the Exchange Program, for a maximum of 30 transferrable credits.


## International Students

Bishop's University extends a warm welcome to all Exchange and International Students. Our campus provides the perfect opportunity to become fully immersed in student life while learning and living alongside the Francophone and Anglophone communities. International and Exchange Students play an important role at Bishop's to enrich our diversity, and all academic and Student Services will provide the support for the duration of your studies.

## Bishop's University

2600 College Street
Sherbrooke, Quebec
JIM IZ7 CANADA
Tel: 819-822-9600 ext. 2616
Fax: 819-822-9661
Email: admissions@ubishops.ca

## Library Learning Commons

The Library Learning Commons houses a collection of nearly 270,000 physicals items, including books, journals, sound recordings, movies, and other audiovisual and non-print materials. The catalogue and most of the library's electronic resources, such as online periodical databases and their thousands of additional items, can be searched from on or off campus through the library website. Resource Sharing services, which are free of charge, provide access to additional resources not owned by the University, including those in all Quebec university libraries.

Orientation sessions are conducted by the Reference Librarians throughout the year. The sessions, usually presented to individual classes, can be general and introductory or designed to meet the needs of a specific class or topic. Librarians also teach one-credit courses in Information Literacy and Critical Thinking, which are taken as lab components of research-based courses offered
through other departments. Sessions are taught in the library classrooms, equipped with technology, allowing for interactive learning and practical experience. Individual assistance is available at the reference assistance desk, or an appointment can be made with a librarian for extended research consultation. Guides and study aids for research in all academic disciplines are available on the library's website.

The facilities include several seminar rooms and numerous group study areas, as well as individual study spaces for more than 960 users. The Library Learning Commons also houses the Information Technology Services Helpdesk, the Writing Centre, the Teaching \& Learning Centre and the student-run Student Success Centre as well as classrooms. The McConnell Agora is the location of academic happenings or open study. There is also a café where students can relax, chat with friends, and enjoy a small meal or a beverage. A digital video production studio and editing stations permit the creation of multimedia products. Listening stations provide access to the extensive assortment of records and CDs in the music collection. The Library Learning Commons is completely wheelchair accessible.

The Archives and Special Collections Reading Room is located in the Old Library, McGreer Hall. This room, which was the original location of the University Library, has been restored and now serves as the reference/reading area for the University's Archives, the Library's Special Collections, and the Eastern Townships Resource Centre. Special Collections, developed in a number of fields, include rare books, historical pamphlets, maps, microfilms, and archival material. The P.H. Scowen Eastern Townships Historical Collection is an important resource for historians and other researchers of local history. The Mackinnon Collection of Canadiana includes many rare and valuable books and pamphlets relating to Canadian history and biography. Materials in the Belanger-Gardner Collection are devoted to the history of world civilization. Rare and unusual books of 17 th and 18 th century theology, history, and literature have been donated from the personal libraries of such prominent people as the Rev. George Jehosaphat Mountain, 3rd Anglican Bishop of Quebec and co-founder of the University.

More detailed information, such as hours of service, staff members, and more can be obtained by consulting the Bishop's University Library Learning Commons website at https://www. ubishops.ca/library/

## Mathematics-Statistics Help Centre

The Math-Stats Help Centre is located in Johnson 4. Our friendly, knowledgeable staff help students individually or in small groups to perfect their mathematical skills, work on their assignments, understand mathematical concepts and study for their exams. This service is free to all Bishop's University students and no appointment is necessary. For more information, contact Scosha Merovitz at 819-822-9600 ext. 2722 or smerovit@ubishops.ca.

## Theatres

Bishop's Centennial Theatre, built in 1967, contains a charming and efficient main theatre seating 550 , a spacious lobby, a vast workshop, a rehearsal room, dressing rooms, a Green Room, and the administrative offices. Equipped to the newest standards since the renovations of 2006, it provides an excellent learning facility as well as a splendid focus on a diversity of renters and the annual
large-scale Drama Department production. Students are offered every chance to work on the various aspects of the incoming or in-house productions.

The Turner Studio Theatre functions as a dynamic multi-purpose environment for traditional and experimental presentations. Opened in March 1989, it seats up to 150 people in a technically sophisticated yet intimate space which can adapt to the special needs of theatre. As a laboratory and teaching resource, the Studio Theatre provides a creative context in which students can develop their professional skills. The Drama Department produces 2 annual Festivals of student plays as well as four other productions directed by the Drama Department teachers and professors.

## University Chapel of St. Mark's

St. Mark's Chapel is a sacred place on the campus known for its beauty and peaceful atmosphere. The Chapel was consecrated in 1857, was enlarged in 1875, and interior additions to the fabric were completed in 1898, when the present magnificent carved oak stalls and panelling were installed. These were executed by French-Canadian craftspersons and are arranged on the pattern of the traditional collegiate church. The other furnishings, stained glass windows, memorial plaques, the organ, the sanctuary lamp, the lectern Bible, all reveal parts of the University history. In 1989, the Chapel was declared a historic site by the Quebec Ministry of Cultural Affairs.

Sunday services are held at 10:00 a.m. during the academic year and the Chapel is open daily from 7:00 a.m. to 7:00 p.m. for prayer and reflection. Special services and concerts are held at various times and are publicized throughout the University and the local community. The administration of St. Mark's and its services of worship are the responsibility of the Campus Minister.

## The Student University Centre

The Student University Centre is the heart of student activity on campus and is comprised of three adjoining buildings: Bishop Mountain House, Memorial House, and Marjorie Donald House.

Bishop Mountain House houses both Bishop's University and Champlain Regional College student government offices, the Diversity and Equity Centre, the Campus newspaper and various club offices. Doolittle's, situated on the first floor near the student mailboxes and campus post office, is a student-owned and operated "dépanneur" (convenience store) where newspapers, snacks and bus tickets may be purchased and where videos may be rented. Tim Horton's, located on the second floor, is well-equipped with floor to ceiling windows and a breath-taking view of the campus.

Memorial House contains the Gaiter Grill while the newly renovated student bar, 'The Gait', also serves as a multi-purpose reception room and examination hall. The International Centre overlooks an outdoor patio.

Marjorie Donald House is the home of the University Bookstore, operated as a co-op as of July 2019. On the second floor are found the offices of the Dean of Students Affairs, the LEAP Coordinator, The Counselling Services, the Career \& Employment Office, the University Success Coach, the Campus Ministry, and the Student Accessibility and Accommodation Services Office, lab and exam centre.

A spacious atrium connects the three buildings and provides an open and comprehensive space for informal gatherings, promotional tables and various sales of plants, posters, jewelry, and
clothing. All facilities are wheel-chair accessible.

## The Writing Centre

The Bishop's University Writing Centre is located in The Library Learning Commons. The Writing Centre offers free appointments for students who would like help with their written assignments and/or feedback on the EWP Exam. The Centre also offers free workshops to help students improve their written work. For further information, see "English writing proficiency" listed under the "BU liberal education model" tab found under "Academic Programs" on the Bishop's homepage menu or contact the Writing Centre Coordinator at ewpchair@ubishops.ca

## Consultation Service

Students who want help or feedback on their written assignments can sign up for free consultations at The Writing Centre using the online booking system: http://buwritingcenter.simplybook. $\mathrm{me} / \mathrm{v} 2 /$. Assistance is given in essay planning, organization, development, grammar and syntax. Students can also review their EWP Exams and get help with application letters and letters of intent.

## Workshops

The Writing Centre offers free interactive workshops to help students improve their written work. These include the following: How to Write Letters of Intent for Graduate School, How to Write a Research Paper, and Punctuation Made Easy.

## Scholarships, Awards, Bursaries, Loans, and Prizes

## Note: The following regulations are applicable to all students beginning their degree programs in the Fall 2020 semester or later. For students who began their degree program studies prior to Fall 2020, please consult the relevant Academic Calendar for the applicable regulations.

## Scholarship Program

Historically, most of the scholarships awarded under the Bishop's University Scholarship Program have been established by gifts from alumni, foundations, and corporate benefactors, some over 155 years ago. The University is grateful to the many donors who support its scholarship program.

## Entrance Scholarships

No formal application is required for most entrance scholarships. All applications for admission received by March 1st from CEGEP, Canadian high school, IB Diploma, and international secondary school students who have graduated within two years of registering at Bishop's University are eligible for scholarship consideration. Applicants categorized as Mature, University transfer, or College transfer are not eligible for entrance scholarship consideration.

Our entrance scholarships range in value from $\$ 1,000$ to $\$ 20,000$ CAD for the academic year. Unless otherwise indicated, entrance scholarships are non-renewable. All scholarships are competitive meaning that they are awarded based on the calibre of the total pool of applications received. All eligible students will be assessed automatically for scholarship consideration after the March 1st deadline.

Scholarship offers, including information regarding conditions of the scholarship offer and the process to accept, will be made separately from the offer of admission.

## Winter Entry Scholarships

Students who are commencing their studies for the first time in the Winter semester will be eligible for entrance scholarships at the start of the following Fall semester, provided they maintain an $80 \%$ cumulative average in the Winter and/or Spring semesters of their starting year on a minimum of 12 credits. Scholarship levels will be based on their final incoming Winter admission average. Scholarships are only awarded in September of each academic year.

## Scholarship Payment

1. Scholarships are paid to a student's account in two equal installments in the weeks following the Add/Drop deadline in the Fall and Winter semesters. If the value of the scholarship exceeds the amount charged to the student account for that semester, the balance of that semester's payment is credited to the following semester.
2. In order to receive scholarship funds, a student must be a registered full-time student (minimum 12 credits) in both the Fall and Winter semesters ( 24 credits total).

Exceptions:
a) Students in their final semester who require fewer than 12 credits to graduate may petition the Registrar to retain their full-time status, and receive a pro-rated award.
b) Students on a recognized Bishop's University Outgoing Exchange program.
3. In order to receive the Winter installment of a scholarship, students must:
a) Complete 12 credits during their Fall semester studies at Bishop's with a fall average of at least 70\% AND
b) be registered at Bishop's on a full-time basis (minimum 12 credits) for the Winter semester.

Should the student's average fall below $70 \%$, or should they register in fewer than 12 credits, their scholarship is withdrawn effective that Winter semester.

## Continuing Student Scholarships

All returning students will automatically be considered for scholarships through the University's Continuing Student Scholarship Program. To be eligible for a Continuing Student Scholarship consideration, a student must:
a) complete a minimum of 24 credits (not including lab credits) in the previous September to August at Bishop's University
Note: Courses taken at another institution on a Letter of Permission and non-credit English as a Second Language courses are not included in the 24-credit minimum or in the calculation of the student's academic average for scholarship purposes.
b) have obtained a minimum average of at least $80 \%$ calculated on their best 24 credits from the previous September to August

Exception: Students participating in an internship, co-op placement, or practicum will have their file evaluated by the ASAP Committee.
c) have less than 120 credits completed at the start of the upcoming Fall semester
d) be registered in their first undergraduate degree and
e) be registered as a full-time student in the upcoming Fall semester.

Students who complete the academic year fulfilling the above conditions will be eligible for scholarship consideration for the following academic year. The value of these awards varies depending on academic performance. Students with more than 90 credits completed at the start of the Fall semester who are awarded a scholarship may receive a pro-rated amount. Meeting the above criteria does not guarantee a scholarship.

Students are notified of scholarship awards by e-mail sent to their Bishop's University e-mail account before August 15.

## Scholarship Renewal

Unless otherwise indicated, Entrance and Continuing Student Scholarships are non-renewable.

## Renewable Scholarships

Recipients of renewable scholarships (Entrance and Continuing) must normally meet the following criteria:
a) Complete a minimum of 24 credits at Bishop's University in the previous academic year (September to August). Courses taken at another institution on a Letter of Permission and non-credit English as a Second Language courses are not included in the 24 -credit minimum.
b) Have less than 97 credits completed at the start of the Fall semester of when the renewed scholarship is to be received.
c) Have a minimum average of $80 \%$ calculated on their best 24 credits completed in the previous academic year (September to August). Students on a recognized outgoing Exchange will have their scholarship renewal average calculated on an individual basis.
d) For certain renewable scholarships, students may need to meet different minimum average requirements or criteria to have their scholarship renewed. These criteria will be outlined, via email, in an official notification issued to the student once the scholarship has been allocated and awarded.

## Awarding of Scholarships

Bishop's scholarship program is competitive meaning that each year students are automatically considered based on their GPA from the previous year as outlined above. Receiving an entrance or continuing student scholarship in the previous year does not guarantee a scholarship for future semesters.

For questions related to scholarships, please contact the University Bursar at jberwick@ubishops.ca.

## Scholarships

## ALUMNI JUBILEE SCHOLARSHIP

(endowed by Bishop's Alumni who graduated more than 50 years ago) Preference given to relatives of Bishop's graduates.

## AMERICAN BILTRITE (CANADA) LTD. SCHOLARSHIP

(endowed in 1998 through the Partners in Learning campaign)
Awarded to students whose permanent residence has been in the Eastern Townships.

## SADIQ AWAN GRADUATE SCHOLARSHIP IN EDUCATION

(endowed in 2019 through a bequest in the Will of Sadiq Awan, M.Ed.'75)

Two scholarships of \$7,500 each for students of high academic standing in the Master of Education program. Preference given, where possible, to a student from Abbottbad, Pakistan. Additional scholarships of varying amounts may be awarded at the discretion of the Dean of Education. Application required. Possibility of renewal.

## SADIQ AWAN SCHOLARSHIP

(endowed in 2019 through a bequest in the Will of Sadiq Awan, M.Ed.'75)

A $\$ 6000$ scholarship awarded to a full-time, undergraduate student of high academic standing in any discipline. Preference given to a student in financial need and, if possible, one from Abbottbad, Pakistan. Possibility of renewal.

## BANQUE NATIONALE BUSINESS SCHOLARSHIP

(endowed through contributions to the Partners in Learning campaign, 1998-2003, and the Leading the Way campaign, 2012-2018)
Awarded to Canadian students of high academic standing in the Marketing and Entrepreneurship concentration.

## JOHN BASSETT MEMORIAL SCHOLARSHIP

(endowed by friends of John Bassett DCL '39, Chancellor 1950-58) Awarded to students in the Humanities or Social Sciences.

## W.G. BASSETT SCHOLARSHIP

(endowed in 2017 by the late Marion G. Bassett, in honour of her late husband William G. Bassett '30)
Awarded to an undergraduate student with high academic standing.

## SIR EDWARD BEATTY MEMORIAL SCHOLARSHIP

(endowed by a bequest in the Will of Sir Edward Beatty DCL '27)

## BOURSE GÉRARD BEAUREGARD

(endowed through the Partners in Learning campaign, 1998-2003)
Awarded to a student from the Eastern Townships.

## BOURSE BESTAR

(established in 2016 by Bestar Inc. through the Leading the Way campaign)
Awarded to a student from the Lac-Mégantic area, studying business or entrepreneurship.

## BMO FINANCIAL GROUP SCHOLARSHIP

(endowed through contributions to the Partners in Learning campaign, 1998-2003, and the Leading the Way campaign, 2012-2018)
Awarded to Canadian students of high academic standing in the Williams School of Business.

## FONDATION J. ARMAND BOMBARDIER SCHOLARSHIP

(endowed in 1996 by Fondation J. Armand Bombardier) Awarded to an outstanding Quebec student.

## DR. E.E. BOOTHROYD SCHOLARSHIP

(endowed in memory of Dr. Boothroyd, who taught English and History at Bishop's from 1904 to 1944)
Awarded to a student of History or English with high academic standing.

## BORALEX SCHOLARSHIP

(established in 2018 through the Leading the Way campaign) Awarded to students majoring in environmental sciences, with a preference to graduate students.

## BOROUGH OF LENNOXVILLE SCHOLARSHIP

(endowed through the Partners in Learning campaign, 1998-2003) Awarded to a long-time resident of Lennoxville with high academic standing. Preference to an entering student. Possibility of renewal.

## CHIEF JUSTICE BOWEN SCHOLARSHIP

(endowed in honour of The Hon. Edward Bowen, the University's Chancellor from 1856-58)

## DAVID S. BRIGHAM SCHOLARSHIP

(established in 2018 by Rhys Brigham '95, in memory of his father David S. Brigham '69)
Awarded to a student in any discipline who demonstrates financial need.

## HOWARD BROWN MEMORIAL SCHOLARSHIP

(endowed through a bequest in the Will of Howard Brown, DCL '01, founder of the Department of Music and Professor of Music from 196783)

Awarded to returning students who have exhibited strong performance in Music.

## ROBERT BRUCE SCHOLARSHIP

(established through a bequest in the Will of Mr. Bruce, a native of Scotland who lived in Quebec from 1835 until his death in 1885)

## ROBIN BURNS MEMORIAL SCHOLARSHIP

(endowed in 2003 by faculty and friends of Robin Burns, who taught History at Bishop's from 1979 until his premature death in 1998) Preference given to a student in History with high academic standing.

## CANADIAN NATIONAL SCHOLARSHIP

(endowed through the Partners in Learning campaign, 1998-2003)

## GROUPE CANAM SCHOLARSHIP

(endowed through the Partners in Learning campaign, 1998-2003) Awarded to students from Quebec with high academic standing.

## DOUGLAS CARMICHAEL MEMORIAL SCHOLARSHIP

(endowed in 1942 by his parents in memory of Douglas Carmichael '38, who was killed in active service during WWII)

## CHANCELLOR'S EXCELLENCE SCHOLARSHIP

(endowed in 2018 by an anonymous donor to attract outstanding students to Bishop's University)
The Chancellor's Excellence Scholarships, valued at \$10,000 per year (and renewable for up to three additional years), are intended to recognize and reward students with outstanding academic records and who personify Bishop's fundamental values - sound learning, good citizenship, community, discovery, excellence, and sustainability. Recipients will be selected by a committee, chaired by the Principal. Available to Canadian citizens and permanent residents who present a minimum cumulative admissions average of $90 \%$ in their Grade 11 year or a cumulative 33 CEGEP R-Score. Application form and details are available at ubishops.ca.

## CHEVALIER MEMORIAL SCHOLARSHIP

(endowed in 2011 through a bequest in the Will of Louise Chevalier '53, DCL '90)
Preference given to a Sociology student.

## SUSAN \& JOHN CHIPPINDALE SCHOLARSHIP

(established in 2018 by John \& Susan (Drury) Chippindale '82)
Awarded to students with high academic standing.

## JOHN C. CLARK SCHOLARSHIP

(endowed through the Partners in Learning campaign, 1998-2003, in honour of his son Paul '89)

## CLARK-KENNEDY SCHOLARSHIP

(endowed in 1959 by Mrs. Clark-Kennedy)

## CLASSES OF '59, '60 \& '61 SCHOLARSHIP

(endowed in 2000 by the Classes of ' 59 , ' $60 \&$ ' 61 in honour of their professors and classmates and to celebrate their 40th anniversary)

## JOHN \& PATTIE CLEGHORN SCHOLARSHIP

(endowed in 2000 by Pattie and John Cleghorn DCL ' 89 through the Partners in Learning campaign. John was Chair of Leadership Gifts and National Chair of the Learning for Life campaign 1987-1992. Two of their three children, Andrea and Ian, graduated in 1990 and 1991 respectively. Lynne Bridgman ' 89 joined the family by marrying Ian.)
Awarded to students of high academic standing who are pursuing majors in History and/or Fine Arts.

## STUART A. COBBETT SCHOLARSHIP

(endowed in memory of a devoted friend and member of Bishop's Corporation, 1967-76)

## ARCHDEACON R.H. COLE SCHOLARSHIP

(endowed in 1981 through a bequest in the Will of the Venerable R.H. Cole)

## COMPASS GROUP CANADA SCHOLARSHIP

(endowed through the Partners in Learning campaign, 1998-2003)

## BOURSE CONSTRUCTION GÉRATEK

(endowed through the Partners in Learning campaign, 1998-2003)
Awarded to a student from the Eastern Townships.

## CONSTRUCTION LONGER SCHOLARSHIP

(endowed in 1998 through the Partners in Learning campaign, 19982003)

Awarded to a student from the Eastern Townships.

## GERTRUDE CONWAY \& DAVID ALFRED CONWAY JONES SCHOLARSHIP

(endowed in 2014 by Susan Gram and Tom Jones in memory of their mother, Gertrude Conway, and their brother, David Alfred Conway Jones)
Awarded to students from the greater Sherbrooke area who are pursuing a Bachelor of Arts (Education), Bachelor of Science (Education), or Bachelor of Education program. If no suitable candidates are available, recipients can be selected from the Eastern Townships, and then from the province of Quebec.

## COSTCO SCHOLARSHIP

(endowed in 2015 by Ross A. Hunt ' 81 and Costco Wholesale Canada Ltd.)
Awarded to a full-time student who is a resident of Sherbrooke, has an interest in studying Business, and demonstrates financial need. The award is renewable for up to three years provided the recipient maintains a minimum $70 \%$ average.

## KENNETH CRAWFORD SCHOLARSHIP

(endowed in 2003 through a bequest in the Will of Kenneth Crawford '31)

## JEAN CRÉPEAU SCHOLARSHIP

(endowed by Jean Crépeau through the Partners in Learning campaign, 1998-2003)

## RONALD CROWLEY SCHOLARSHIP

(endowed in 2016 by a bequest in the Will of Ronald Crowley '64) Multiple scholarships awarded to students with high academic standing, with a preference for those enrolled in Business or Economics.

## DAVIES CHARITABLE FOUNDATION SCHOLARSHIP

(endowed in 1996 by the Davies Charitable Foundation in Kingston, ON)
Awarded with a preference to students from the Kingston/Belleville/ Brockville area.

## NANCY DAWES SCHOLARSHIP

(endowed in 1962 by Nancy Dawes)

## O.H. (BUD) DE SÉVIGNÉ SCHOLARSHIP IN THE CREATIVE AND PERFORMING ARTS

(endowed in 1992 by Oscar H. de Sévigné '37, M.A. '39)
Awarded to a student in Drama, Fine Arts or Music who has demonstrated high creative or performance skills.

## GALLOP-DICKSON SCHOLARSHIP IN EDUCATION

(endowed in 2011 by W. John Gallop '57, Karen Dickson Ingimundson and Betty Mueller Dickson in memory of Doris Dickson Gallop '23 and C. Wynne Dickson '32)

Awarded to students with high academic standing in the School of Education. Preference given to indigenous students and/or students from the Eastern Townships.

## IAN DOBELL SCHOLARSHIP

(endowed in 2005 by a bequest in the Will of Ian Dobell '74)

## EATON SCHOLARSHIP

(endowed by the Eaton Foundation in 1989)

## ÉNERGIR SCHOLARSHIP IN ENVIRONMENTAL STUDIES

(established in 2016 by Énergir through the Leading the Way campaign)
Awarded by the Department to high-achieving students enrolled in the Graduate Micro-Program in Climate Change.

## ESPRIT DE CORPS ENTRANCE SCHOLARSHIP

(endowed in 2015 by the Classes of '62-' 66 in honour of their 50th reunion, and named after the Bishop's school song "Raise a Toast", written by members of this class)
Awarded to an entering Bishop's student.

## HARRIET J. EVANS SCHOLARSHIP

(endowed in 1969 by Harriet Evans, a Sherbrooke resident and Bishop's benefactor)

## EXP SCHOLARSHIP

(endowed through the Partners in Learning campaign, 1998-2003)

## NARCISSA FARRAND SCHOLARSHIP <br> (endowed in 1917 by Mr. \& Mrs. H.V. Truell)

## TOM FLETCHER SCHOLARSHIP IN ENVIRONMENTAL JUSTICE

(established in 2020 by Jim Fletcher in honour of his brother, the late Dr. Tom Fletcher, Full Professor in the Department of Environment and Geography (ESG) at Bishop's University from 1999-2020)
Awarded to returning ESG students who have demonstrated a combination of academic excellence in environmental studies and financial need, as well as an interest in environmental justice. Recipient will be selected through an essay competition, organized by the Department.

## FLORENCE MAY FOREMAN SCHOLARSHIP

(endowed in 2003 through the Estate of Florence Foreman)

## FOUNDATION GRADUATE SCHOLARSHIP

(established in 2019 by the Bishop's University Foundation) Awarded by application to high-performing students entering a the-sis-based graduate program at Bishop's. Scholarships of up to $\$ 5000$ each will be matched by the thesis supervisor, for potential funding of $\$ 10,000$. Possibility of renewal. See the Research page of the BU website for details.

## GLOBAL EXCEL MANAGEMENT SCHOLARSHIP

(endowed through the Partners in Learning campaign, 1998-2003)
Preference given to a student from the Eastern Townships.

## KUEHNER 437 SCHOLARSHIP

(endowed in 2014 by a close knit group of '92-'96 alumni, to honour Bishop's 170th birthday and their time in Kuehner residence)
Awarded to a student in good academic standing who lives in residence, with a preference to one living in Kuehner Hall.

## CHIEF JUSTICE GREENSHIELDS MEMORIAL SCHOLARSHIP

(endowed through a bequest in the Will of Chief Justice Greenshields DCL '31, Chancellor 1932-42)

## ELIZABETH GRIFFIN ARTS SCHOLARSHIP

(endowed through a bequest in the Will of Elizabeth Griffin '36) Awarded to entering Canadian students in the Humanities or Social Sciences.

## JOHN HACKETT MEMORIAL SCHOLARSHIP

(endowed by friends and family in memory of longtime friend, graduate, and counsel of Bishop's University, John Hackett '63, who died prematurely in 1999)
Preference given to a Humanities student.

## JOHN HAMILTON SCHOLARSHIP

endowed in honour of John Hamilton, the University's Chancellor from 1900-1926

## HAY FOUNDATION SCHOLARSHIP

(funded annually by the Hay Foundation since 1998)
Awarded to a student from Quebec with high academic standing.

## R.W. HENEKER SCHOLARSHIP

(endowed in honour of R. W. Heneker, the University's Chancellor from 1878-1900)

## HOLT SCHOLARSHIP IN MODERN LANGUAGES

(endowed in 1990 by Mrs. Pam Dunn DCL '99 in honour of her father W.R.G. Holt and her grandfather Sir Herbert Holt DCL '29, and her children, four of whom attended Bishop's)
Awarded to outstanding students in a Modern Languages program.

## FREDA HOWIE MEMORIAL SCHOLARSHIP

(endowed in 2003 through the Estate of Freda Howie '39)

## HYDRO-QUÉBEC SCHOLARSHIP

(endowed through the Partners in Learning campaign, 1998-2003) Awarded to students from Quebec with high academic standing.

## BOURSE D'ÉXCELLENCE HYDRO-QUÉBEC

(established in 2018 through the Leading Way campaign)
Awarded to full-time Canadian students or Permanent Residents, with a preference to those from Quebec, who demonstrate academic excellence (minimum 3.5/4.0) and leadership qualities. Preference for MSc programs in Physics, Computer Science and Education.

## GERALD JOHNSTON SCHOLARSHIP

(endowed in 2015 through a bequest in the Will of Gerald H. Johnston '48)
Preference given to students in the Division of Natural Sciences and Mathematics who demonstrate academic excellence.

## HELEN KEARNS ENTRANCE SCHOLARSHIP

(established in 2018 by Helen Kearns '75, through the Leading the Way campaign)
Awarded to a promising entering student from the Eastern Townships.

## MARION REED KERR SCHOLARSHIP

(endowed in 2003 through the Estate of Marion Kerr)
Preference given to a student from the Ulverton-Richmond-Melbourne area.

## KILLAM AMERICAN SCHOLARSHIP

(endowed anonymously in 2006 to encourage American students to attend Canadian universities)
Awarded to entering full-time students who are domiciled in or are citizens of the United States. The scholarship is renewable provided students continue to meet the academic standards.

## GENE H. KRUGER SCHOLARSHIP

(endowed in 1999 by Joseph Kruger II, Chairman and CEO of Kruger Inc.)
Preference given to a student from the Eastern Townships.

## KRUGER INC. SCHOLARSHIP IN ENVIRONMENTAL STUDIES

(endowed in 1994 by Kruger Inc.)
Awarded to a student in the second or third year of a major or honours program in Environmental Studies.

## R.A. LINDSAY SCHOLARSHIP

(endowed in 1947 by Dr. \& Mrs. Lionel Lindsay in memory of their son, Robin '42, who was killed in action in WWII)

## DOUGLAS A.T. LLOYD MEMORIAL SCHOLARSHIP IN PHILOSOPHY

(established in 2004 in memory of Douglas Lloyd '62 by his wife Nancy Tees '63, their three children: Stephen '89, Jennifer '92, and Carolyn ' 96 , and their grandchildren - of which Clara will be the first to graduate Bishop's in 2020.)
Awarded to a student who has excelled in Philosophy, enjoyed an enriched educational experience and contributed to the broader culture on campus. Selected by the Department.

## GEOFF AND JOSÉE MacDONALD SCHOLARSHIP

(established in 2018 by Geoff '92 and Josée '93 MacDonald through the Leading the Way campaign)
Awarded to students who demonstrate academic excellence.

## GERALD MALLARD MEMORIAL SCHOLARSHIP

(endowed in 1985 by Mrs. Gertrude Mallard in memory of her husband Gerald '47)

## SIR HERBERT MEREDITH MARLER MEMORIAL SCHOLARSHIP

(endowed in 1990 by members of the Marler family, in honour of Sir Herbert Marler DCL '38)
Awarded to a student of high academic standing in a major or honours program in Political Studies who is entering the penultimate year of undergraduate studies. Selected by the Department.

## LESLIE McCAIG MEMORIAL SCHOLARSHIP

(established anonymously in 2000 in honour of Leslie McCaig '35, who was killed in active service during WWII)
Awarded to an entering student in Humanities who is pursuing a major or honours program in English or History. Possibility of renewal.

## HARRISON McCAIN SCHOLARSHIP

(endowed through the Partners in Learning campaign, 1998-2003)
Awarded to a student from New Brunswick.

## J.W. McCUBBIN SCHOLARSHIP IN SCIENCE

(established in 2000 to mark the 50th anniversary of the Chemistry Department and to honour one of its founding professors. Dr. J.W. "Wally" McCubbin who came to Bishop's in 1946, was a popular teacher and served as department head several times and later as Dean of Science until his retirement in 1972.)
Awarded to a top-tier student entering or returning to the Chemistry or Biochemistry program.

## McDONALD'S RESTAURANTS OF CANADA SCHOLARSHIP

(endowed through the Partners in Learning campaign, 1998-2003)

## SYDNEY R. McMORRAN SCHOLARSHIP

(established in 1999 by Bud McMorran '60, DCL '04, member of Bishop's Corporation 1989-1997, and Chair of Bishop's Foundation 1998-2010)
Preference given to students in the Humanities.

## DR. SIDNEY MEDINE SCHOLARSHIP

(endowed through a bequest in the Will of Sidney Medine '35)
Multiple scholarships awarded to Canadian citizens who demonstrate academic excellence.

## METRO-RICHELIEU INC. SCHOLARSHIP

(endowed through the Partners in Learning campaign, 1998-2003 and the Leading the Way campaign, 2012-2018)
Awarded to a Quebec student with high academic standing.

## MILLS FAMILY SCHOLARSHIP

(endowed in 2014 by Don C. Mills '71 and Liz Mills '72)
Awarded to student(s) from Atlantic Canada, registered in the Bachelor of Business Administration program. Preference given to students who show an interest in pursuing a concentration in marketing.

## J. RAYMOND MILLS SCHOLARSHIP

(endowed in 2002 through a bequest in the Will of Raymond Mills)

## RODNEY S. MILLS SCHOLARSHIP

(endowed by the late Rodney Mills ' 53 through the Partners in Learning campaign, 1998-2003)
Awarded to Williams School of Business students, with a preference to those pursuing a concentration in Global Management and Leadership.

## STANLEY MILLS SCHOLARSHIP IN HUMANITIES

(established in 1995 by the G.H. Stanley Mills Memorial Trust in memory of G.H.S. Mills '43, benefactor)
Awarded to outstanding students in the Humanities.

## MOLSON FOUNDATION SCHOLARSHIP

(endowed through the Partners in Learning campaign, 1998-2003)

## JOHN H. MOLSON SCHOLARSHIP

(founded in 1972 by John H. Molson DCL '48, Honorary President of the Corporation of Bishop's University)

## DONALD MONTGOMERY SCHOLARSHIP

(endowed in 2002 by Don Montgomery '75)
Awarded to a long-time resident of Lennoxville, Quebec.

## G.H. MONTGOMERY MEMORIAL SCHOLARSHIP (endowed in 1951 by a bequest in the Will of Dr. Montgomery, Chancellor 1942-1950)

## NORAH MOORHEAD MEMORIAL SCHOLARSHIP

(endowed by David Jones '76 in honour of Norah Moorhead DCL '86, who devoted her life to the service of education, the Anglican Church, and projects in developing countries)
Awarded to a student from Richmond, QC or elsewhere in the Eastern Townships who is pursuing a Bachelor of Arts, major in English or History.

## FRANCES CROOK MORRISON SCHOLARSHIP IN EDUCATION

(endowed in 1999 by Frances Morrison '39, to recognize the 60th year since her graduation)
Awarded to a Bachelor of Education student who has achieved a cumulative average of $80 \%$ or higher, plans to teach at the elementary school level, and shows commitment to the teaching of Mathematics. Selected by the School of Education.

## GARY MULLINS SCHOLARSHIP

(endowed in 2002 by Janyne M. Hodder, Principal \& Vice-Chancellor 1995-2004, in honour of her husband)
Preference given to upper year students in the English major or honours program, whose academic achievement warrants consideration of a scholarship for the first time. When possible or appropriate, financial need shall be taken into account. Recipients selected by the English Department.

## JASPER NICOLLS EASTERN TOWNSHIPS SCHOLARSHIP

(endowed through a bequest in the Will of A.D. Nicolls, in memory of his father Jasper, the first Principal of Bishop's University)
Preference given to a student from the Eastern Townships.

## PATERSON FOUNDATION SCHOLARSHIP

(endowed in 1993 in honour of the University's 150th Anniversary) Awarded to a student from Northern Ontario, Manitoba or Saskatchewan with high academic standing.

## POWER CORPORATION SCHOLARSHIP

(endowed through the Partners in Learning campaign, 1998-2003)

## A.W. PRESTON MEMORIAL SCHOLARSHIP IN HUMANITIES

(endowed by alumni and friends in honour of Dr. Anthony W. Preston, who taught Classics from 1930-1964, was appointed Vice-Principal in 1964, and became Principal and Vice-Chancellor in 1969) Awarded to a returning student in Classics, Philosophy, Religion or Liberal Arts with a high academic average. Selected by the Chairs of the four departments.

## PRICE SCHOLARSHIP

(established in 1968 in honour of Brig. Gen. John H. Price DCL '62, Chancellor 1968-74)

## E.A. PRINCE MEMORIAL SCHOLARSHIP IN POLITICAL SCIENCE

(endowed by former students, colleagues and friends of Professor E.A. Prince, a member of the Bishop's Political Studies Department from 1967-1981)
Awarded to a returning Political Studies student of high academic standing who, in the opinion of the Department, has made a significant contribution to the life of the University.

## PwC SCHOLARSHIP

(endowed through the Partners in Learning campaign, 1998-2003)

## QUEBECOR INC. SCHOLARSHIP

(endowed through the Partners in Learning campaign, 1998-2003)
Awarded to a student from Quebec with high academic standing.

## GERALD THEODORE RAYNER SCHOLARSHIP IN POLITICAL STUDIES

(established in 2012 through funding by Gerald Theodore Rayner '51 and gifts made in his memory)
Awarded to a Canadian student entering his/her penultimate year who is studying Honours Political Studies, has an interest in or has taken Public Policy and is planning to pursue graduate work in political studies, and has revealed a strong commitment to Canada. Selected by the Department.

## RESOLUTE FOREST PRODUCTS SCHOLARSHIP

(endowed through the Partners in Learning campaign, 1998-2003) Awarded to the top returning Social Sciences student.

## WANDA ROZYNSKA SCHOLARSHIP IN FINE ARTS

 (endowed in 2007 by Wanda and Stanley Rozynski)Awarded to a female student in Fine Arts who has shown the aptitude and desire necessary to pursue a Studio Honours degree.

## GORDON SAMSON MEMORIAL SCHOLARSHIP

(endowed through a bequest in the Will of Gordon Samson '42)

## PEGGY AND DAVID SAVAGE MEMORIAL SCHOLARSHIP

(endowed in 2014 by a bequest in the Will of Marguerite Savage) Awarded to a returning student in the Fine Arts Department, with a preference to one studying in Studio Art.

## SCOTIABANK SCHOLARSHIP

(endowed through contributions to the Partners in Learning campaign, 1998-2003, and the Leading the Way campaign, 2012-2018)
Awarded to entering students with high academic standing. Possibility of renewal.

## P.H. AND EULAH REED SCOWEN SCHOLARSHIP IN EDUCATION

(endowed in 1994 by the Scowen grandchildren)
Awarded to a student in the Bachelor of Education program who demonstrates financial need. Preference given to a mature student. Possibility of renewal. Selected by the Department.

## SUSAN SHARP MEMORIAL SCHOLARSHIP

(founded in 1962 by Mr. W.O. Sharp and Miss Helen Sharp in memory of a former Bishop's student)

## SHERMAG SCHOLARSHIP

(endowed in 2001 through the Partners in Learning campaign by Shermag and its founder, Serge Racine)
Awarded to a student from the Eastern Townships.

## ROSANNE SIMARD SCHOLARSHIP

(endowed in 2015 by a bequest in the Will of Rosanne Simard '00) Awarded to exceptional students in the Psychology Department.

## JEAN McCALLUM SIMPSON SCHOLARSHIP

(endowed through a bequest in the Will of Jean Simpson '43, and gifts from her brother John McCallum '35)
Preference given to a student in Mathematics.

## H. GREVILLE SMITH MEMORIAL SCHOLARSHIP

(endowed in 1976 through a bequest in the Will of H. Greville Smith DCL '67)

## SNC LAVALIN SCHOLARSHIP

(endowed through the Partners in Learning campaign, 1998-2003)

## STEPHEN ST. CLAIR MEMORIAL SCHOLARSHIP

(established in 1966 by the St. Clair Foundation in memory of a former Bishop's student)
Awarded to a continuing male student in residence.

## G.M. STEARNS SR. AND JR. SCHOLARSHIP

(endowed by Evelyn Stearns Murphy '53 and her brother David '52 in honour of George M. Stearns Sr. and Jr.)
Preference given to a Humanities student from the Eastern Townships.

## TD INSURANCE MELOCHE MONNEX SCHOLARSHIP

(endowed through the Partners in Learning campaign, 1998-2003)

## O.B. THORNTON SCHOLARSHIP

(endowed in 1960 by an anonymous donor)
GEORGE H. TOMLINSON MEMORIAL SCHOLARSHIP
(endowed in 1959 through the Will of George Tomlinson DCL '46, a member of the Corporation of Bishop's University 1945-1958)
Awarded to an honours Science student, preferably entering final year.

## RICHARD TOMLINSON SCHOLARSHIP

(endowed in 1999 by the late Richard Tomlinson '43, DCL '89) Multiple scholarships awarded to students who demonstrate academic excellence.

## E.W. JOHN TURCKE SCHOLARSHIP

(endowed by his family in memory of John Turcke. Three of his grandchildren - Christina '91, Peter '94 and Natasha '98 are Bishop's alumni) Awarded to an incoming student majoring in Music, who possesses high academic standing. Preference given to violin or cello. Awarded following a successful audition with the Music program.

## WILLIAM AND NANCY TURNER SCHOLARSHIP

(endowed in 1988 by William I.M. Turner Jr. DCL '87, Chancellor 1987-95)

## VAN HORN MEMORIAL SCHOLARSHIP

(endowed in 1991 by Aleda Van Horn and friends in memory of her husband William '42, Bishop's Chemistry Department 1959-86)
Awarded to a student in Chemistry or Biochemistry.

## VILLE DE SHERBROOKE ARRONDISSEMENT NO 2 SCHOLARSHIP

(endowed through the Partners in Learning campaign, 1998-2003)
Awarded to a student from Sherbrooke with high academic standing.

## VILLE DE SHERBROOKE SCHOLARSHIP

(endowed in 1993 in honour of the University's 150th Anniversary) Awarded to a student from Sherbrooke with high academic standing.

## VK TO C IN 50 SCHOLARSHIP

(established in 2018 by an anonymous donor to mark his 50th anniversary in Canada. Arriving as a refugee, he benefited from Canada's education system and went on to become a world-class nation builder in his professional life. Turning to philanthropy in his retirement, he offers this scholarship to thank Canada for the opportunities it afforded him. VK is Velke Kapusany, Slovakia - the donor's birthplace.)

## WALKER SCHOLARSHIP

(established in 1884 by Miss Helen Walker in memory of her parents, Margaret and The Honourable William Walker DCL 1856, Chancellor 1853-56)

## WATERVILLE TG INC. SCHOLARSHIP

(endowed through the Partners in Learning campaign, 1998-2003)
Awarded to a Business student from Waterville or the Eastern Townships.

## ERIC T. WEBSTER FOUNDATION SCHOLARSHIP

(endowed in 2004 through a bequest from Eric T. Webster, friend of Bishop's and father of Norman '62, William '67 and Maggie, and stepfather of Mark Armitage '69)
Preference given to a student from the Eastern Townships or Montreal.

## HUBERT GRAY WELSFORD SCHOLARSHIP <br> (endowed in 1969 by a bequest in the Will of Hubert Welsford DCL '66)

## GEORGE WESTON SCHOLARSHIP IN HUMANITIES

(endowed by the Weston Foundation in 1995 in support of higher education)
Awarded to Canadian citizens, studying in the Humanities.

## ALAN AND DOROTHY WILLIAMS SCHOLARSHIP IN BUSINESS

(endowed in 1990 by David Williams ' 63 in memory of his parents) Awarded to a top student in the Williams School of Business.

## J.K. \& E.J. WILSON SCHOLARSHIP

(endowed in 1966 by a bequest from Mrs. Joseph C. Kearney)

## DENNIS WOOD SCHOLARSHIP

(endowed through the Partners in Learning campaign, 1998-2003, by Townships businessman and friend of the University)
Awarded to a student from Quebec with high academic standing.

## JEAN YOUNG MEMORIAL SCHOLARSHIP

(endowed in 2003 through the Estate of Mildred Young in memory of her daughter Jean '60)

## Awards

The University has a long list of awards that have been established over time thanks to generous support from alumni and friends of the University. The majority of available awards range in value from $\$ 500-\$ 3,000$ per academic year and are one time nonrenewable. The deadline for entering students to apply for an award is March 15, 2020.

The application deadline for Returning student awards is April 15, 2020.

For questions or information pertaining to awards for entering students, please contact the Admissions Office at admissions@ ubishops.ca or 819-822-9600 x2219.

For questions or information pertaining to awards for returning students, please contact Jamie Berwick, Bursar and Financial Aid Officer at 819-822-9600 x2205 or jberwick@ubishops.ca.

For more information and an application, please visit: http://www.ubishops.ca/future-current-students/money-matters/ scholarships-awards-bursaries/.

## 1954-56 TEAM AWARD

(endowed in 2010 by members of the championship Gaiter football teams of 1954-56, in recognition of their induction to the Wall of Distinction)
Awarded to a student-athlete playing football who has demonstrated athletic excellence. Awarded by the Athletic Awards Committee.

## 1964 GAITER FOOTBALL ATHLETIC AWARD

(endowed in 2006 by members of the 1964 Championship Team) Awarded to an entering football student-athlete who has demonstrated good performance.

## 1967 OSLAA BASKETBALL CHAMPION AWARD

(endowed by members of the 1967 Championship Basketball team after their 2007 induction to the Wall of Distinction)
Awarded by the Athletic Awards Committee to a Gaiter basketball student-athlete.

## AWARDS FOR PEER LEADERSHIP EXCELLENCE

 (APEX)(funded by the Students' Representative Council and designed to recognize and support outstanding leadership activities by pre-University level students)
Awarded to entering students who exhibit strong leadership skills amongst their peers.

## JULIE BRADSHAW MEMORIAL AWARD

(established in 2003 in memory of Julie Bradshaw '80, who won the Golden Mitre Award upon her graduation)
Awarded to the Golden Mitre winner with the highest number of votes. Presented in May at the Students' Representative Council Awards Night ceremony.

## DR. ROBERT M. BROWN CHEMISTRY AWARD

(endowed in 2008 through a bequest in the Will of Dr. Robert M. Brown '44)
Awarded by the Department of Chemistry to a continuing full-time Chemistry student who has maintained good academic standing and has demonstrated financial need. This award may be renewable, at the discretion of the Department.

## BOB BURT AWARD

(endowed in 2012 by Gaiter Football alumni in honour of Bob Burt '57) Awarded to a Bishop's student-athlete in any sport who best exemplifies Bob's qualities of leadership, integrity, and perseverance in his or her athletic endeavours. Awarded by the Athletic Awards Committee.

## BYL AWARD FOR STUDENT LEADERSHIP

(established in 2006 by Sven Byl '01 and Laura (Parker) Byl '00) Preference given to an entering student in good academic standing who demonstrates extensive school involvement and the leadership qualities necessary to become an active participant in the Bishop's experience.

## JEFF CANNON MEMORIAL AWARD

(endowed by family and friends in memory of Jeff Cannon '89, who passed away tragically in 1992)
Presented to the graduating student who, in the opinion of his/her peers and the faculty, has contributed significantly to University life and exhibits characteristics and accomplishments similar to those of Jeff Cannon.

## JEFF CANNON MEMORIAL ENTRANCE AWARD

(endowed by family and friends in memory of Jeff Cannon '89, who passed away tragically in 1992)
Preference given to students who demonstrate extensive school and community involvement, exhibit leadership qualities, and show an entrepreneurial spirit. Awarded by the Awards and Bursaries Committee.

## OWEN CARTER AWARD

(endowed by Owen Carter '38 through the Partners in Learning campaign, 1998-2003)
Awarded to one or more full-time undergraduate students who indicate financial need and have demonstrated both athletic prowess and academic achievements.

## CLEGHORN FAMILY AWARD

(endowed through the Partners in Learning campaign, 1998-2003, by John Cleghorn, DCL '89, member of Bishop's Corporation 1987-1996, Chair of the Learning for Life campaign, 1987-1992, and his wife Pattie)
Awarded to student-athletes (entering or returning) who demonstrate athletic and academic excellence ( $80 \%+$ average). Chosen by the Athletic Awards Committee.

## COACH'S AWARD

(endowed in 2015 by alumni and stakeholders of the Men's Basketball program to celebrate 50 years of basketball at Bishop's University, and to honour past coaches, the late Garth Smith (1958-1984) and Eddie Pomykala (1984-2007) who served as head coaches for the Gaiters for a combined 49 years)
Presented at the discretion of the Men's Basketball Head Coach.

## MIRIAM COZEN-MCNALLY MEMORIAL AWARD

(established in 1995 by Miriam's mother, in memory and recognition of the contribution and inspiration that Miriam, who died tragically in a car accident while a student at Bishop's, made to the team)
Awarded to a returning female student-athlete playing rugby who has demonstrated qualities similar to those displayed by Miriam: enthusiasm, dedication, team spirit, perseverance and overall improvement of rugby skills. Selected by the Athletic Awards Committee and presented at the Athletic Awards Night ceremony.

## WALLY DENVER AWARD

(endowed through the Partners in Learning campaign, 1998-2003, for the Denver family: Wally '61 and his children Keith '88, Jennifer '91, and Kim '92)
Awarded to a student-athlete in financial need.

## JAMES ETCHEVERRY AWARD

(endowed in 1998 in memory of Jim, the son of legendary Alouettes Football team quarterback Sam Etcheverry)
Awarded to a Gaiter football player who has demonstrated athletic excellence.

## FELESKY LEADERSHIP AWARD

(endowed in 2011 by Wade ' 92 and Rebecca Felesky, on the occasion of Wade's induction into the Top 10 After 10)
Awarded to an entering student(s) from Western Canada of high academic standing, whose record of engagement in athletics and/or community service demonstrates significant potential to contribute to and benefit from the full breadth of the Bishop's experience. Preference given to a student who demonstrates financial need. Application required.

## PAUL F. FENTON AWARD

(established in 2007 by Desmond Kinch ' 84 in honour of his mentor and Finance Professor, Paul Fenton, who first got him interested in investments when he was a student at Bishop's. His objective is to give students from the Cayman Islands the same educational opportunity he enjoyed at their age.)
Awarded to an entering student from the Cayman Islands. Preference given to a student who is pursuing a major in Business. Consideration will be given to the financial ability of the student to pay international student fees. The award is renewable for the duration of the student's studies, to a maximum of four years, subject to the student maintaining an average of at least $75 \%$.

## RICHARD FITZSIMMONS MEMORIAL AWARD

(endowed in 2010 by family and friends of Richard Fitzsimmons '70, a Rhodes Scholar, multi-talented intellectual, gifted lawyer, and passionate defender of the rights of others. Il avait un "Cœur de Lion".) Awarded to an entering student who has shown academic promise, demonstrated the qualities of leadership and community service, and has the potential to contribute positively to the Bishop's experience. Financial need will also be considered. Awarded by the Awards and Bursaries Committee.

## FORSYTHE AWARD

(established in 2011 by Chris '99 and Jamie '96 Forsythe)
Awarded to a men's Gaiter basketball player in good academic standing who has excelled on the court and demonstrated financial need. Awarded by the Athletic Awards Committee.

## GOLDBERGER ATHLETE LEADERSHIP AWARD (GALA)

(endowed in 1999 by Robert J. Goldberger '79, Chair of the BU
Foundation 2017-present, and loyal friend of the University)
Awarded by the Athletic Awards Committee to encourage and support student-athletes who have demonstrated athletic excellence.

## PAUL GRATIAS AWARD

(endowed with a gift from Paul Gratias '67 to the Partners in Learning campaign, 1998-2003)
Awarded to one or two student-athletes who demonstrate financial need. Renewable, provided the recipient remains in good academic standing.

## GRIFFIN FAMILY AWARD

(endowed through the Partners in Learning campaign, 1998-2003, by members of the Griffin Family)
Awarded to full-time undergraduate students who demonstrate financial need, academic ability, and the qualities of well-rounded individuals.

## PAUL HAWCO MEMORIAL AWARD

(endowed in 1996 in memory of Paul Hawco '95)
Awarded to an entering student from the province of Alberta who has demonstrated high academic standing and participation in extra-curricular activities. Information available from the Admissions Office.

## HISTORY SOVIET AWARD

(established in 2015 by History Department alumni)
Awarded by the History Department to a returning student who has grown through academic achievements and enhanced the student experience in the Department through community building. Recipient must be in good academic standing, passionate about his or her studies and registered in an honours, major or minor in History or Public History. Preference given to students enrolled in an honours or major degree program.

## HOBBS-SPANSWICK LEADERSHIP AWARD

(endowed in 2010 by Ebert "Bim" Hobbs '51, a proud and loyal Bishop's graduate, and his loving wife of 60 years, the late Audrey Spanswick)
Awarded to an entering student in good academic standing who has demonstrated extensive school and community involvement in activities that have improved the quality of life for people in the local community, the nation or the world, and possesses the leadership qualities necessary to participate actively in the Bishop's experience. Preference given to a student who demonstrates financial need. Selected by the Awards and Bursaries Committee.

## HODDER AWARD IN MUSIC

(endowed in 2004 in honour of Janyne Hodder, Principal of Bishop's University from 1995 to 2004)
Awarded to one or more students for outstanding work in administering the "Music Chez Nous" concert series.

## HOWARD HOLLOWAY AWARD IN EDUCATION

(endowed in 2006 in memory of Howie '65, by Anne Holloway, Stephen ' 65 \& Kathleen Prest, family and friends).
Awarded to two students who have a high academic standing, possess past or present leadership or character suitable to teaching (e.g. contribution to educational endeavours at the University or in the community), and demonstrate financial need.

## JEAN ROBINSON HUNT MEMORIAL AWARD

(endowed in 2000 by Ross Hunt ' 81 , in memory of his mother, Jean Robinson Hunt)
Awarded to a Quebec student from outside the Montreal region, who demonstrates financial need and who maintains an academic average at Bishop's of $70 \%$ or better, for tuition and residence expenses. Application required.

## ROSS HUNTING AWARD

(endowed in 1989 by Ross Hunting through the Learning for Life campaign)
Awarded to a returning student who is of proven academic ability and has contributed to the life of the University through intercollegiate sports and other activities.

## ERIC AND CANDACE INNES AWARD

(endowed through the Partners in Learning campaign, 1998-2003, by Eric ' 71 and Candace ' 71 Innes)
Preference to a second-year student in good academic standing from outside Quebec, who has made a significant contribution to campus life. To be eligible, the student must submit an essay of 500-600 words on "Objectives for my University Experience" to explain his or her aspirations for university. The award is renewable provided the recipient continues to meet the criteria.

## JEZEWSKI FAMILY AWARD

(established in 2020 by former student-athletes Marnie Patrick '00 and Adam Jezewski '00, in honour of their time at Bishop's)
Awarded to student-athletes from the women's soccer and/or men's football teams, with consideration to those demonstrating a strong interest in community engagement. Selected by the Athletic Awards Committee.

## RON AND SHELLY KAULBACH AWARD

(endowed by Ron Kaulbach ' 66 through the Partners in Learning campaign, 1998-2003)
Awarded to students who have demonstrated good performance in a sport and are in financial need. Selected by the Athletic Awards Committee.

## LEN KORNACK AWARD IN EDUCATION

(endowed in 2012 through a bequest in the Will of Len Kornack '64) Awarded to a Bachelor of Education student (preferably focusing on History or English as a teachable subject), who is a Canadian citizen and demonstrates financial need.

## LEN KORNACK AWARD IN HISTORY

(endowed in 2012 through a bequest in the Will of Len Kornack '64) Awarded to a student majoring in History who is a Canadian citizen and demonstrates financial need.

## TINA LAMANNA MEMORIAL AWARD

(established in 2016 by Rick Lamanna '02 in memory of his mother Tina Lamanna, whose positive attitude, determined nature and fighting spirit remain an inspiration to her family and friends)
Awarded to a student-athlete, with priority given to men's basketball, followed by men's football and then women's basketball. This award is renewable.

## RAY LAWSON AWARD

(endowed by the Lawson Foundation in 1985 in honour of the Honourable Ray Lawson, Lieutenant Governor of Ontario and honorary graduate of Bishop's University)
Awarded to the returning student who, in the opinion of the Students' Representative Council, has contributed most to the life of the University.

## J. AMY LUXTON MEMORIAL AWARD IN BIOLOGY

(established in 2018 by John ' 67 and Sylvia Luxton in memory of their daughter)
Awarded to promising, returning Biological Sciences students to encourage them to accept greater challenges and further their love and knowledge of the subject. Selected by the Department.

## DREW MacCANNELL AWARD FOR INTERDISCIPLINARY EXCELLENCE

(endowed in 2018 by Dr. Keith Andrew MacCannell, BSc '02) Awarded to a BSc student engaged in a joint program that combines Biology, Biochemistry or Chemistry, with one or more of Physics, Mathematics or Computer Science. Preference will be given to Honours undergraduate students with demonstrated academic achievement and research potential. Awarded by the Chairs of the Division of Natural Sciences and Mathematics. Graduate students will be considered if there are no qualified undergraduates.

## IRENE MACKAY AWARD

(endowed in 1997 by Dr. Hugh M. Scott DCL '99, Principal \& ViceChancellor 1986-1995, in honour of his mother)
Preference given to a student from a single-parent household who is in good academic standing and demonstrates financial need.

## ZDENEK MUNZAR MEMORIAL AWARD

Established in 1998 by Dr. Michael Munzar, B.Sc. '75, a Trustee of Bishop's University Foundation and a loyal friend of the University, in honour of his father.

Awarded by the Athletic Awards Committee to students who indicate financial need and have demonstrated athletic prowess in football.

## DIANE MURPHY SCRUBB MEMORIAL AWARD

(established in 2014 by family, friends and teammates of the late Diane Murphy '80)
Awarded to a member of the Bishop's women's basketball team. Preference given to well-rounded students who demonstrate strong leadership skills in athletic and student life.

## JEAN IRVINE PATERSON AWARD

(endowed by Alex K. Paterson '52, DCL '74, Chancellor 1995-2005, in honour of his mother)
Awarded to full-time undergraduate students who, at the time of admission, are considered to have characteristics which make it likely that they will, on graduation, contribute significantly to the community. Selection of the candidates will come from the Recruitment Office, with an aim to recruiting well-rounded Bishop's students.

## JOAN AND ALEX PATERSON AWARD

(established in 2004 by Alex K. Paterson '52, DCL '74, Chancellor 1995-2005)
Awarded at Convocation to a graduating student who contributed the most to volunteer work and activities in the off-campus community. Selected by the Dean of Student Affairs and the Executive of the Students' Representative Council.

## PATRICK SANDERSON SOCCER AWARD

(established in 2019 by Erin Patrick Sanderson '02 \& Matt Sanderson ' 01 on the occasion of Erin's induction to the Athletic Wall of Distinction)
Awarded to a player on the Women's Soccer team by the Athletics Awards Committee, in consultation with the Head Coach. Presented at the Athletic Awards Night ceremony.

## JOHN PRATT EMERGING LEADER ENTRANCE AWARD

(endowed in 2013 by John Pratt '58)
Awarded to entering students who demonstrate creativity and initiative in one or more of the following categories: community service, extracurricular involvement, athletics, internship or work experience. Candidates should demonstrate potential for future achievement through a track record of previous efforts. Preference will be given to students who are ineligible for other major entrance awards and major scholarships.

## E. ANTHONY PRICE AWARD

(endowed in 2003 by family and friends of Tony Price '50, DCL '02) Awarded to an upper year student who has excelled in academics and sports and whose first language is French.
Preference given to History students. Non-renewable.

## THOMAS E. PRICE MEMORIAL AWARD

(endowed in 1997 in memory of Thomas Price '51, DCL '82)
Preference given to a continuing student-athlete, who is academically eligible to participate and has demonstrated outstanding ability in in-ter-university competition. Selected by the Athletic Awards Committee.

## OLGA REID MEMORIAL AWARD FOR JOURNALISM

(endowed in 2011 by Mr. and Mrs. Leslie Reid, in memory of his sister Olga Reid '37)
Awarded to the student journalist or writer who, in the opinion of The Campus Editorial Board, has written the best article or series during the academic year.

## RIDER FAMILY AWARD

(established in 2009 by Tim and Linda Rider on the occasion of John Rider's '57 induction into the Wall of Distinction, and in recognition of the numerous Rider family members who have actively participated in the Bishop's experience)
Awarded to a student-athlete playing football or basketball (men's or women's) who has demonstrated athletic excellence. Selected by the Athletic Awards Committee.

## JOE \& YVONNE SCOTT AWARD

(established through the Partners in Learning campaign, 1998-2003, to honour the graduation of their daughters, Jennifer '99 and Allison '01. Joe served on Bishop's Corporation from 1990-99)
Awarded to students who have demonstrated good performance in their sport and have financial need. Selected by the Athletic Awards Committee.

## GEOFF SNOW AWARD

(established in 2016 by Geoffrey Snow, BA ’05)
Awarded to a female student-athlete from Ontario playing on the basketball or soccer team, to encourage Ontario students to explore Quebec and experience Bishop's.

## SPG JUBILEE AWARD FOR STUDENT MUSICIANS AT ST. MARKS CHAPEL

Awarded to students who provide musical services at St. Mark's Chapel during the academic year. This may include playing the organ or another instrument, directing the chapel choir, or accompanying choir practices. Selected by the Chapel Music Committee.

## CODY TRIGGS MEMORIAL AWARD

(funded by David and Laurie Triggs to honour the memory of their son Cody who died tragically in 2005 while a student at Bishop's)
Awarded to a rugby player who demonstrates athletic prowess and responsible conduct. Awarded by the Athletic Awards Committee and presented at the Athletic Awards Night ceremony.

Note: Students' Representative Council (SRC) Awards are listed in the Services and Facilities section of this calendar, under Student Government and Student Activities

## Bursaries

Alumni and friends of the University have established several bursaries over time to assist students in financial need. An online application is required to be considered for all awards and bursaries (Entering or Returning). The application deadline for Entering students is March 15, 2020. The application deadline for Returning students is April 15, 2020. For more information and application, please visit: http://www.ubishops.ca/future-current-students/money-matters/scholarships-awards-bursaries/.

Entering students can also contact the Admissions Office at admissions@ubishops.ca or 819-822-9600 x2006.

Returning students may contact Jamie Berwick, Bursar and Financial Aid Officer at 819-822-9600 x2205 or jberwick@ubishops.ca.

## AK Bursary

(established by friends of Annis Karpenko '70 in honour of her time as the General Manager of the Students' Representative Council)
Awarded to a returning student in good academic standing who demonstrates financial need. Preference given to Fine Arts or Drama majors. Additional preference given to current or former members of the SRC.

## APBU Bursary

(endowed through the Partners of Learning campaign, 1998-2003 by the Association of Professors of Bishop's University)
Awarded to a full-time returning Bishop's student, with priority given to students from Quebec. This award is renewable unless the student's financial circumstances change.

## HARRY BENNETT MEMORIAL BURSARY

(endowed through a bequest in the Will of Harry Bennett, who served on Bishop's Corporation from 1976-1985, and on the Foundation from 1989-1997)
Awarded to a full-time student who demonstrates financial need.

## BISHOP'S UNIVERSITY STAFF BURSARY

(endowed by Bishop's staff members through the Partners in Learning campaign, 1998-2003)
Awarded to returning full-time students in good academic standing who are Canadian citizens, demonstrate financial need, and do not hold any other University scholarship or bursary.

## BOROUGH OF LENNOXVILLE BURSARY

(established in 1994 by the Borough of Lennoxville)
Awarded to a long-time resident of Lennoxville who demonstrates financial need. Preference to an entering student. Possibility of renewal.

## CHAWKERS FOUNDATION BURSARY

(endowed by The Chawkers Foundation in 2000)
Awarded to a student who is pursuing a degree in Environmental Studies and Geography, is in good academic standing, and demonstrates financial need.

## CIBC BUSINESS BURSARY

(established in 2017 through the Leading the Way campaign)
Awarded to students in financial need enrolled in the Williams School of Business, with preference to those participating in the Co-op program.

## VIRGINIA COWAN MEMORIAL BURSARY

(endowed by family and friends in memory of Virginia Cowan '95, who passed away prematurely in 2001)
Presented to a continuing female Business student in good academic standing who has participated widely in campus life.

## DESJARDINS BURSARY

(endowed in 2015 through the Leading the Way campaign) Awarded to returning full-time students who demonstrate financial need, are Canadian citizens and are current members of Desjardins. Ten awards of $\$ 1000$ each are available each year. Students must provide proof of being a current Desjardins member. Non-renewable.

## FOUR SHADES OF PURPLE MEMORIAL BURSARY

(established in 2010 by alumni, friends and family to honour the memory of dear friends and former students Michel Fontaine, Kyle Pearson '06, David Teehan '07, and Cody Triggs)
Awarded to a second-year student who was initially supported through the Refugee Sponsorship Program. Awarded by the Refugee Sponsorship Committee.

## ROYCE AND JANET GALE BURSARY

(endowed in 2018 by the late Royce Gale '49, an inspirational Sherbrooke High School teacher, an accomplished thespian (Piggery Theatre) and a generous philanthropist who made a difference in so many ways throughout his life).

## STEWART GRAHAM MEMORIAL BURSARY

(endowed by family, faculty and friends of Stewart Graham '00 who passed away prematurely in 2000)
Preference given to a continuing student from Atlantic Canada who demonstrates financial need.

## ROGER V. HARDY BURSARY

(endowed in 2003 by Roger V. Hardy '93)
Awarded to Rugby or Soccer student-athletes in good academic standing, who demonstrate financial need. A minimum of $50 \%$ will be awarded to female athletes.

## THOMAS \& CECILE HENDY BURSARY

(endowed in 2017 through the Leading the Way campaign by George Hendy '68, Chair of the BU Foundation, 2010-2017, in memory of his parents)
Awarded to one or more deserving students who demonstrate high academic achievement and financial need.

## HOWARD V. HOLLOWAY BURSARY IN EDUCATION

(endowed in 2016 in memory of Howie '65, by Anne Holloway, Stephen ' 65 and Kathleen Prest, family and friends)
This renewable bursary is awarded to two students from the Eastern Townships or Quebec Lower North Shore who are enrolled in the School of Education and demonstrate financial need.

## DR. IAN KNOWLTON HUME BURSARY

(established in 2016 by the Hume Family to honour the memory of their father, Dr. Ian Knowlton Hume '33)
This non-renewable entrance bursary is awarded to a first-year student athlete in good academic standing. Preference given to a candidate without other financial assistance from the Eastern Townships (with preference given to Foster, Melbourne or Richmond), and/or registered in a BA program.

## REV. RAY JENSEN BURSARY

(endowed in 2017 by Rev. Ray Jensen '50)
Awarded to Bishop's students in financial need, studying in the Liberal Arts.

## GERALD JOHNSTON BURSARY

(endowed in 2015 through a bequest in the Will of Gerald H. Johnston '48)
Preference given to students in the Division of Natural Sciences and Mathematics who demonstrate financial need.

## THE JOYCE FAMILY FOUNDATION BURSARY

(endowed in 2016 by The Joyce Family Foundation through the Leading the Way campaign)
Awarded to entering, full-time Canadian students or Permanent Residents who demonstrate critical financial need, high academic potential and perseverance in the face of challenges. Recipients are expected to participate in a mentoring program. Bursaries are renewable if criteria are met.

## KVMAR BURSARY

(established in 2012 by Kumar Hathiramani '72.)
Awarded to a full-time female student who has demonstrated financial need and is in good academic standing. Preference given to international students.

## JOHN LECKIE BURSARY

(endowed in 2005 by John Leckie '68)
Preference given to a Business student from the Eastern Townships who demonstrates financial need.

## MAYA LIGHTBODY BURSARY

(endowed in 2006 by colleagues and friends in memory of prominent regional artist Maya Lightbody)
Awarded to a part-time student enrolled in Fine Arts courses. Selected by the Department.

## T. DAVID LITTLE BURSARY

(established in 2014 by Len Ruby ' 87 and Raegan Little ' 90 in memory of Raegan's father)
Awarded to an entering student in financial need who is playing a varsity sport and interested in pursuing a career in law.

## RONALD C. LOUCKS BURSARY

(endowed in 2016 by Ronald C. Loucks ' 74 through the Leading the Way campaign)
Awarded based on financial need, often in conjunction with a student's effort and commitment to his/her studies, the bursary will help students pursue higher education at Bishop's University.

## O'KILL AND BARBARA MILLER MEMORIAL BURSARY

(endowed in 2008 by Sandra Miller '90 in memory of her parents) Awarded to a full-time, mature student from Quebec who has demonstrated financial need.

## CAROL AND MICHAEL MOONEY BURSARY

(endowed in 2002 by Carol and Michael Mooney, both BSC '68)
Awarded to a male student in the Elementary Education program, who has completed two years of study.
Selected by the Department.

## SEAN AND LAURA O'BRIEN BURSARY

(established in 2013 by Sean O'Brien '90 and Lara O'Brien '92)
Awarded to a student in financial need, with preference to members of the Gaiter Football team.

## THOMAS E. PRICE BURSARY

(endowed in 1997 in memory of Thomas Price '51, DCL '82)
Preference given to continuing student-athletes who demonstrate financial need. Application forms are available from the Athletics Department.

## P. QUIRK BURSARY

(established in 2020 by Pamela Quirk ‘92)
Awarded to a female student from outside the province of Quebec, who demonstrates financial need.

## LT. F. REGINALD ROBINSON BURSARY

(endowed by the late Mrs. Julia M. Robinson of Granby, in memory of her son who laid down his life for his country in WWI)

## KATHARINE SLATER ROURKE BURSARY

(endowed in 2017 through a bequest in the Will of Katharine Slater Rourke)
Awarded to students in the Fine Arts or Humanities programs who demonstrate financial need.

## SODEXO CANADA BURSARY

(established in 2017 by Sodexo Canada)
Awarded to a Bishop's student(s) living in residence.

## MICHAEL B. SOMMERVILLE '65 MEMORIAL BURSARY

(endowed in 2018 by family and friends of Mike Sommerville '65) Awarded to full time student-athletes who are members of the Gaiter Football team. Preference given to those in financial need.

## ST. ANDREW'S SOCIETY BURSARY

Awarded to a student of Scottish descent who demonstrates financial need.

## CAROL STEVENSON BURSARY

(endowed in 2001 by Carol Stevenson to encourage and help serious students of any age to pursue higher education)
Awarded to a student who demonstrates financial need and has an average of $70 \%$ or higher.

## TD BANK FINANCIAL GROUP BURSARY

(endowed through the Partners in Learning campaign, 1998-2003)
Awarded to full or part-time students who are Canadian residents and who demonstrate financial need. Amount may not exceed $50 \%$ of tuition fees.

## TONG/NIMMRICHTER FAMILY BURSARY

(established in 2018 in fond memory of Andrej Markes)
Awarded to a returning Canadian student in financial need, with a minimum $70 \%$ average. Selected by the Awards and Bursaries Committee.

## TOUCHSTONE BURSARY

(established in 2016 by an anonymous donor)
Awarded to a returning Bishop's student majoring in Drama from the Eastern Townships. Preference given to those meeting one or both of the following criteria: first, demonstrates financial need and second, is a Francophone student. Non-renewable.

## WHITTAKER FAMIL Y BURSARY

(established in 2016 by Mr. W. Gary Whittaker ' 68 and other members of the Whittaker Family)
Awarded to students who demonstrate academic potential and financial need.

## WULFTEC INTERNATIONAL BURSARY

(endowed through the Partners in Learning campaign, 1998-2003)
Preference given to a student in financial need from Ayer's Cliff, Beebe, Stanstead or Rock Island.

## Loans

## Provincial Loans and Bursaries

Governmental aid is extended to students in the form of guaranteed loans, or a combination of guaranteed loans and bursaries according to the applicant's requirements. The plan is designed to give increased aid to those with greater needs. A student is eligible who:

- is a Canadian citizen or Permanent resident;
- is domiciled and has resided in their respective Provinces and meets the government regulations in regards to residency;
- has submitted an application, in their respective province, by the required date, in which requirements of a financial nature have been established by that province.
All students coming to Bishop's University have to apply for these loans through their province of residency. The home province determines final eligibility and the University has no say in any funding calculated.


## External Scholarships

An extensive list of Graduate scholarships tenable in Canada or internationally is available on the Bishop's Research website at: http://www.ubishops.ca/research/student-research-scholarships. html

Natural Sciences and Engineering Research Council of Canada (NSERC) Undergraduate Student Research \& Industrial Awards (USRAs) - University undergraduate student research awards provide financial support to undergraduate students during the summer months. http://www.nserc-crsng.gc.ca/Students-Etudiants/UG-PC/USRABRPC_eng.asp

The Fonds de recherche du Québec - Société et Culture (FRQSC). Undergraduate Introduction to Research Scholarship - provides financial support to undergraduate students during the summer months. http://www.fqrsc.gouv.qc.ca/fr/bourses/candidat.php

You may contact the Office of Research Services for more information.

## Postgraduate Scholarships

Canada-US Fulbright Scholarships

www.fulbright.ca
Canadian students may apply for a Fulbright Scholarship to enter a graduate program at a university in the USA.

Natural Sciences and Engineering Research Council of Canada (NSERC) Alexander Graham Bell Canada Graduate Scholarships Program $\mathbf{( \$ 1 7 , 5 0 0 )}$<br>www.nserc-crsng.gc.ca

Social Sciences and Humanities Research Council of Canada (SSHRC) Joseph-Armand Bombardier Canada Graduate Program-Master's Scholarships $\mathbf{( \$ 1 7 , 5 0 0 )}$
www.sshre-crsh.gc.ca
Canadian Institutes of Health Research (CIHR) Frederick Banting and Charles Best Canada Graduate Scholarships (\$17,500)
www.cihr-irsc.gc.ca
Government of Canada, Department of Foreign Affairs and International Trade, and the Canadian Bureau of International Education
www.scholarships.gc.ca and www.cbie.ca
International Scholarships for graduate study and research offered to Canadians to study abroad.
Fonds de recherche du Québec
Master's and Doctoral research scholarship funding available to Quebec residents. Online applications:
Fonds de recherche du Québec - Société et culture
www.fqrsc.gouv.qc.ca
Fonds de recherche du Québec -
Santé www.frqs.gouv.qc.ca
Fonds de recherche du Québec - Nature et technologies
www.fqrnt.gouv.qc.ca
***All information in this section is subject to change

## Prizes

To be eligible for any prize, students must be in an honours or a major program, and must have completed a minimum of 30 credits at Bishop's University. There are two major categories of prizes: University-wide prizes, for which students in any program may compete; and Departmental proficiency prizes, which are awarded for excellence in a particular discipline or program.

To be eligible for a University-wide prize, a student must have a minimum cumulative average of $80 \%$ over all courses completed. A graduating student must have completed at least 60 credits at Bishop's University; a non-graduating student must have completed a minimum of 30 credits at Bishop's.

To be eligible for any Departmental prize, a student must have completed at least 30 credits at Bishop's University, and must have a minimum average of $80 \%$ in courses in the discipline (or accepted cognate courses).

Where non-academic criteria are included in the specifications for a prize, students with an average not lower than $75 \%$ may be considered to be eligible.

## University-wide Prizes

## HON. G. HOWARD FERGUSON CUP

The student of the graduating class who has made the greatest contribution to the life of the University is to have his or her name inscribed on the cup presented by the late Hon. G. Howard Ferguson, and is to receive a certificate appropriate to such a distinction. Such an award shall take into consideration:
(a) high academic standing
(b) proficiency in representing the University in athletic and other activities
(c) qualities of character and leadership

GOVERNOR GENERAL'S GOLD MEDAL
Awarded for outstanding academic proficiency in a Master's program.

## GOVERNOR GENERAL'S SILVER MEDAL

Awarded to the student standing first in the final year of his/her undergraduate program.

## CHIEF JUSTICE GREENSHIELDS PRIZE

This prize is awarded to the winner of the Hon. G. Howard Ferguson Cup.

## COLONEL ARTHUR MILLS PRIZE

Awarded to a first-year student with a high academic standing who has made the most valuable contribution to the extra-curricular life of the University.

## CHARLES A. SHEARSON MEMORIAL PRIZE

(endowed by the late Dr. William Shearson, Professor Emeritus, in memory of his father)
Awarded to a student in neither the first nor final year, with high academic standing, who has made a contribution to the life of the University, represented the University in athletic and other activities and who shows qualities of character and leadership.

## ST. MARK'S CHAPEL PRIZE

Awarded to a student of proven academic ability who, in the opinion of the Friends of St. Mark's, has contributed to the life of the University through significant participation in the St. Mark's community.

## STRATHCONA FOUNDATION PLAQUE

Awarded to the athlete of the graduating year with the highest academic standing, who has represented the University in intercollegiate competition.

## VICE-CHANCELLOR'S PRIZE

Awarded for outstanding academic proficiency in the final year of an undergraduate program.

## NORMAN WEBSTER PRIZE

(endowed by Norman Webster '62, DCL '85)
Awarded to a student graduating in two areas of specialization (e.g. double honours, double major, major and minor, or a double concentration in the B.B.A. Program), with high academic standing, and who has made a significant contribution to University life through participation in athletics or other extracurricular activities.

## RACHELLE WRATHMALL PRIZE

Awarded to the graduating female student from the Eastern Townships with the highest academic average.

## Departmental Proficiency Prizes

## Art History

## ART HISTORY OUTSTANDING ACHIEVEMENT PRIZE <br> (established in 2015 by an anonymous donor) <br> Awarded to one or more students who, in the opinion of the Department, displayed outstanding achievement in Art History.

## UNDERGRADUATE PRIZE IN ART HISTORY

Awarded to the top returning student in Art History. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN ART HISTORY

Awarded to the top graduating student in Art History. Funded by Bishop's University alumni and friends.

## Arts Administration

## UNDERGRADUATE PRIZE IN ARTS ADMINISTRATION

Awarded to the top returning student in Arts Administration. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN ARTS ADMINISTRATION

Awarded to the top graduating student in Arts Administration. Funded by Bishop's University alumni and friends.

## Biochemistry

## SOCIETY OF CHEMICAL INDUSTRY PRIZE IN BIOCHEMISTRY

Awarded to the graduating student with the highest standing in Honours Biochemistry.

## UNDERGRADUATE PRIZE IN BIOCHEMISTRY

Awarded to the top returning student in Biochemistry. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN BIOCHEMISTRY

Awarded to the top graduating student in Biochemistry. Funded by Bishop's University alumni and friends.

## Biological Sciences

## ARTHUR N. LANGFORD PRIZE

Awarded in the name of Emeritus Professor A.N. Langford to an outstanding graduating student in Biology.

## SUSANNA LEE MEMORIAL PRIZE

Awarded in memory of Susanna Lee '97 to a graduating student in Biology who intends to pursue either graduate studies or further education in the allied health sciences.

## J.K. LOWTHER PRIZE

Awarded in memory of Professor J.K. Lowther to a graduating student of high academic standing who is judged to show special interest in the field of Ecology.

## LEO SEPP PRIZE

Awarded in memory of Professor Leo Sepp to a Biology student in his or her second program year on the basis of general proficiency.

## UNDERGRADUATE PRIZE IN BIOLOGICAL SCIENCES

Awarded to the top returning student in Biological Sciences. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN BIOLOGICAL SCIENCES

Awarded to the top graduating student in Biological Sciences. Funded by Bishop's University alumni and friends.

## Business Administration

## EY PRIZE IN ACCOUNTING

Awarded to an accounting student going into his/her final year of study, who has demonstrated perseverance and actively participated in accounting-related activities. Selected by faculty members in the Accounting Concentration.

## EY PRIZE IN ACCOUNTING - TOP STUDENT

(endowed in 2006 by Ernst \& Young and Bishop's graduates who work at the firm)
Awarded to the student going into his/her final year of study who holds the highest average in Accounting courses (minimum of 5 courses) and who is planning to pursue a CPA designation.

## EY PRIZE IN MARKETING \& ENTREPRENEURSHIP

Awarded to a marketing and entrepreneurship student entering their penultimate or final year, with excellent academic standing.

## JOHN B. FELLOWES MEMORIAL PRIZE

Awarded for high proficiency in Business Administration to a student who, in the opinion of the Division, has made a significant contribution to the work of the class.

## CHARLES KINGSMILL '67 MEMORIAL PRIZE

Awarded for high proficiency in Business Administration to a student in the graduating year who, in the opinion of the Division, has made a significant contribution to the work of the class.

## UNDERGRADUATE PRIZE IN BUSINESS (ACCOUNTING)

Awarded to the top returning student in Business Administration (Accounting). Funded by Bishop's University alumni and friends.

## UNDERGRADUATE PRIZE IN BUSINESS (B.A. MAJOR)

Awarded to the top returning student in Business Administration (B.A. Major). Funded by Bishop's University alumni and friends.

## UNDERGRADUATE PRIZE IN BUSINESS (FINANCE)

Awarded to the top returning student in Business Administration (Finance). Funded by Bishop's University alumni and friends.

## UNDERGRADUATE PRIZE IN BUSINESS (GENERAL)

Awarded to the top returning student in Business Administration (General). Funded by Bishop's University alumni and friends.

## UNDERGRADUATE PRIZE IN BUSINESS (GLOBAL MANAGEMENT \& LEADERSHIP)

Awarded to the top returning student in Business Administration (Global Management and Leadership). Funded by Bishop's University alumni and friends.

## UNDERGRADUATE PRIZE IN BUSINESS (MARKETING \& ENTREPRENEURSHIP)

Awarded to the top returning student in Business Administration (Marketing and Entrepreneurship). Funded by Bishop's University Alumni and friends.

## UNIVERSITY PRIZE IN BUSINESS (ACCOUNTING)

Awarded to the top graduating student in Business Administration (Accounting). Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN BUSINESS (B.A. MAJOR)

Awarded to the top graduating student in Business Administration (B.A. Major). Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN BUSINESS (FINANCE)

Awarded to the top graduating student in Business Administration (Finance). Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN BUSINESS (GENERAL)

Awarded to the top graduating student in Business Administration (General). Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN BUSINESS (GLOBAL MANAGEMENT \& LEADERSHIP)

Awarded to the top graduating student in Business Administration (Global Management and Leadership). Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN BUSINESS (MARKETING \& ENTREPRENEURSHIP)

Awarded to the top graduating student in Business Administration (Marketing and Entrepreneurship). Funded by Bishop's University alumni and friends.

## Chemistry

## CANADIAN SOCIETY FOR CHEMISTRY SILVER MEDAL

Awarded to the student standing at the top of the penultimate year in an Honours Chemistry program.

## ALBERT KUEHNER MEMORIAL PRIZE IN CHEMISTRY

Awarded to a graduating student with high standing in Chemistry.

## SOCIETY OF CHEMICAL INDUSTRY PRIZE IN CHEMISTRY

Awarded to the graduating student with highest standing in Honours Chemistry.

## UNDERGRADUATE PRIZE IN CHEMISTRY

Awarded to the top returning student in Chemistry. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN CHEMISTRY

Awarded to the top graduating student in Chemistry. Funded by Bishop's University alumni and friends.

## Classical Studies

## MACKIE PRIZE

(established in 1848 by the Rev. Dr. James Mackie (AB Canterbury), an official in the Diocese of Quebec)
Awarded to an outstanding graduating student in Classical Studies.

## PRINCE OF WALES PRIZE

Awarded to outstanding students in courses given in the Department of Classical Studies.

## UNDERGRADUATE PRIZE IN CLASSICAL STUDIES

Awarded to the top returning student in Classical Studies. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN CLASSICAL STUDIES

Awarded to the top graduating student in Classical Studies. Funded by Bishop's University alumni and friends.

## Computer Science

## UNDERGRADUATE PRIZE IN COMPUTER SCIENCE

Awarded to the top returning student in Computer Science. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN COMPUTER SCIENCE

Awarded to the top graduating student in Computer Science. Funded by Bishop's University alumni and friends.

## Drama

## BARD PRIZE

Awarded to a Drama student entering second year, who has achieved high academic standing and made a significant contribution to Departmental productions.

## MICHAEL C. BOISVERT MEMORIAL PRIZE

(endowed by colleagues, friends and family in memory of Michael C. Boisvert, Technical Director of Centennial Theatre from 1987 to 1994) Awarded to a student with high academic standing in neither first nor final year, who in the judgment of the Department has demonstrated proficiency in technical theatre production.

## JANE QUINTIN MITCHELL PRIZE IN DRAMA

(endowed in 1965 by Dr. and Mrs. T.J. Quintin in memory of their daughter)
Awarded to a second or third year student with Dramatic Literature as one of their subjects who has shown talent and interest in some practical aspect of play production in the University theatre. Selected by the Department.

## DAVID RITTENHOUSE PRIZE IN DRAMA

(endowed in 2011 by friends and family following David's passing) Awarded to a graduating student(s) in Drama, chosen by the Department, who has demonstrated exceptional dedication to the craft of theatre at Bishop's University.

## UNDERGRADUATE PRIZE IN DRAMA

Awarded to the top returning student in Drama. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN DRAMA

Awarded to the top graduating student in Drama. Funded by Bishop's University alumni and friends.

## Economics

## ECONOMICS EDUCATION ENHANCEMENT PRIZE

Awarded to the student who, in the opinion of the Department, has made significant contributions to its professional and pedagogical development. Funded by Dr. Ambrose Leung, former faculty in the Department of Economics.

## FACULTY PRIZE IN ECONOMICS

Awarded to a returning student with the best performance in first year economic theory; one each in Microeconomic theory and Macroeconomic theory. Funded by the Department of Economics.

## PRIZE FOR EXCELLENCE IN ECONOMIC RESEARCH

Awarded to the student with an outstanding essay in the area of economic theory. Funded by the Cormier Centre Trust.

## JOHN W.Y. SMITH PRIZE

Awarded for high proficiency in Economics.

## J. R. STOKES PRIZE IN ECONOMICS

(established in 2007 by the late Rev. J. Stokes '58)
Awarded to a full-time, first-year student in Economics who has completed at least nine required credits in Economics and finished the year with the highest cumulative average.

## UNDERGRADUATE PRIZE IN ECONOMICS

Awarded to the top returning student in Economics. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN ECONOMICS

Awarded to the top graduating student in Economics. Funded by Bishop's University alumni and friends.

## Education

## CHARLES MCBURNEY PRIZE

Endowed by Mrs. Charles McBurney in memory of her husband and awarded for the highest proficiency in Practice Teaching at the Secondary level.

## WILLIAM L. SHURTLEFF PRIZE FOR ACADEMIC ACHIEVEMENT

Provided by the William L. Shurtleff Fund, and awarded to an outstanding graduating student in the B.A. Major in Educational Studies.

## WILLIAM L. SHURTLEFF PRIZE FOR PRACTICE TEACHING - ELEMENTARY

Provided by the William L. Shurtleff Fund, and awarded for highest proficiency in Practice Teaching at the Elementary level.

## UNDERGRADUATE PRIZE IN ELEMENTARY EDUCATION

Awarded to the top returning student in Elementary Education. Funded by Bishop's University alumni and friends.

## UNDERGRADUATE PRIZE IN SECONDARY EDUCATION

Awarded to the top returning student in Secondary Education. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN ELEMENTARY EDUCATION

Awarded to the top graduating student in Elementary Education. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN SECONDARY EDUCATION

Awarded to the top graduating student in Secondary Education. Funded by Bishop's University alumni and friends.

## JOHN S. VISSER MEMORIAL PRIZE IN EDUCATION AND FRENCH

(endowed in memory of John S. Visser '42, Dip. Ed. '45)
Awarded to a graduating student in Education and French who, in the opinion of the Departments concerned, has demonstrated excellent French-teaching ability.

## English

## JIM FERRABEE MEMORIAL PRIZE IN JOURNALISM

(endowed in 2010 by family and friends in memory of Jim Ferrabee '57. Jim enjoyed a successful career in journalism and was one of the University's most dedicated volunteers and supporters right up until his death in January 2010.)
Awarded to a student(s) for the best work submitted in a Journalism course. Selected by the English Department.

## MACKIE PRIZE IN ENGLISH

(established in 1848 by the Rev. Dr. James Mackie (AB Canterbury), an official in the Diocese of Quebec)
Awarded to an outstanding graduating student in honours English.

## F.E. MEREDITH MEMORIAL PRIZE

(endowed by the late W.C.J. Meredith, Esq., Q.C., M.A., D.C.L., in memory of his father F.E. Meredith, Q.C., L.L.D., D.C.L., who was Chancellor of the University from 1926 to 1932)
Awarded to a graduating student in an English program who is an exemplary writer. Selected by the Department.

## SHAUNA MURRAY MEMORIAL PRIZE

(established in 1994 by family and friends in memory of Shauna Murray, Professor of English at Bishop's from 1970-1982)
Awarded at Convocation to the student chosen by the members of the English Department who submits the best English honours thesis, and who is not otherwise receiving a Departmental award.

## JOANNE NORMAN PRIZE IN MEDIEVAL STUDIES

(endowed in 2007 by family and friends of Joanne Norman, Professor of English at Bishop's from 1990-2007)
Awarded to the student who submits the best essay in Medieval Studies. Chosen by the Department.

## ARCHDEACON F.G. SCOTT PRIZE

(established in 1881 by recognized confederation poet F.G. Scott, B.A. 1881, M.A. 1884, D.C.L. 1901, to encourage creative writing. After his death in 1944, his family endowed the prize in his name)

## STANMIL PRIZE FOR EXCELLENCE IN WRITING

Awarded through the G.H. Stanley Mills Memorial Trust for excellence in writing. Selected by the English Department.

## UNDERGRADUATE PRIZE IN ENGLISH

Awarded to the top returning student in English. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN ENGLISH

Awarded to the top graduating student in English. Funded by Bishop's University alumni and friends.

## GLEN WICKENS PRIZE IN FILM STUDIES

(endowed in 2012 to mark the retirement of Dr. Glen Wickens from the English Department after 30 years of exceptional service, 1982-2012. Students and colleagues admired Dr. Wickens for his commitment and leadership. In later years, he was instrumental in developing the popular Film Studies concentration.)
Awarded to an outstanding graduating student in the Film Studies Program. Selected by the English Department.

## Environment and Geography

## THE CANADIAN ASSOCIATION OF GEOGRAPHERS PRIZE

Awarded to an outstanding graduating student in an Environment and Geography honours or major program.

## UNDERGRADUATE PRIZE IN ENVIRONMENT AND GEOGRAPHY

Awarded to the top returning student in Environment and Geography. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN ENVIRONMENT AND GEOGRAPHY

Awarded to the top graduating student in Environment and Geography. Funded by Bishop's University alumni and friends.
Études françaises et québécoises

## AMBASSADOR OF SWITZERLAND PRIZE IN FRENCH

A book prize awarded to a final year student who obtains a high standing in French.

## LIEUTENANT RODDIE LEMIEUX PRIZE

Awarded for proficiency in French Literature, in memory of Bishop's student, Roddie Lemieux, who was killed in World War I.

## UNDERGRADUATE PRIZE IN ÉTUDES FRANÇAISES ET QUÉBÉCOISES

Awarded to the top returning student in Études françaises et québécoises. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN ÉTUDES FRANÇAISES ET QUÉBÉCOISES

Awarded to the top graduating student in Études françaises et québécoises. Funded by Bishop's University alumni and friends.

## Fine Arts

## WANDA ROZYNSKA PRIZE IN FINE ARTS

(endowed by the late Wanda and Stanley Rozynski, who believed that life would not be possible without art)
Preference given to a student(s) in Fine Arts who has shown the aptitude and desire necessary to pursue a Studio Honours Degree. Selected by the Department.

## UNDERGRADUATE PRIZE IN FINE ARTS

Awarded to the top returning student in Fine Arts. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN FINE ARTS

Awarded to the top graduating student in Fine Arts. Funded by Bishop's University alumni and friends.

## German Studies

## AMBASSADOR OF SWITZERLAND PRIZE IN GERMAN

A book prize awarded to a final year student who obtains a high standing in German.

## FEDERAL REPUBLIC OF GERMANY PRIZE IN GERMAN

A book prize awarded for proficiency in German by the Montreal Consul General of the Federal Republic of Germany.

## REPUBLIC OF AUSTRIA PRIZES

A book prize awarded for proficiency in German by the Montreal Consul General of Austria.

## Hispanic Studies

## AMBASSADOR OF SPAIN PRIZE

A book prize awarded to a graduating student with high academic standing in a minor in Hispanic Studies.

## HISPANIC STUDIES PRIZE

A book prize awarded to a graduating student obtaining a high standing in a major in Hispanic Studies.

## UNAM ESCUELA DE EXTENSIÓN PRIZE

A book prize awarded to a non-graduating student with high academic standing in either a major or minor in Hispanic Studies.

## History

## ROBIN BURNS MEMORIAL BOOK PRIZE

(established in 2010 in memory of Professor Robin Burns, dedicated teacher and scholar in the Department of History, 1979 to 1998) Awarded to a first year Double Major Social Studies and Secondary Education student for the best essay in History. The recipient will receive a scholarly book of critical acclaim on History or a related field. Funded by the Department of History.

## MALCOLM AND EVELYN DOAK PRIZE IN HISTORY

(established by family with love and in honour of the 50th wedding anniversary of Malcolm '24 and Evelyn '26 Doak)
Awarded to the undergraduate who presents the best essay on one of four historical topics assigned at the beginning of the academic year.

## RODERICK THALER MEMORIAL PRIZE

Awarded to a graduating student in History on the recommendation of the Department.

## UNDERGRADUATE PRIZE IN HISTORY

Awarded to the top returning student in History. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN HISTORY

Awarded to the top graduating student in History. Funded by Bishop's University alumni and friends.

## BILL AND CATHERINE YOUNG PRIZE IN HISTORY

 (endowed in 1999 by former Bishop's staff members Dave and Mary Ellen Young, in memory of David's parents)Awarded for the best essay submitted for a History course by a first-year student in either a major or an honours History program, upon recommendation of the faculty in the Department.

## Liberal Arts

## UNDERGRADUATE PRIZE IN LIBERAL ARTS

Awarded to the top returning student in Liberal Arts. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN LIBERAL ARTS

Awarded to the top graduating student in Liberal Arts. Funded by Bishop's University alumni and friends.

## Mathematics

## IRVING PRIZE

Awarded to the first-year student with the highest marks in Mathematics.

## PROFESSOR SYDNEY TAYLOR MEMORIAL PRIZE

(endowed in 2010 by Martin '66 and Roger ' 60 in memory of their father, a professor of Mathematics at Bishop's from 1952-1968)
Awarded to a returning Mathematics Major or Honours student for outstanding academic performance. Selected by the Department.

## UNDERGRADUATE PRIZE IN MATHEMATICS

Awarded to the top returning student in Mathematics. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN MATHEMATICS

Awarded to the top graduating student in Mathematics. Funded by Bishop's University alumni and friends.

## Modern Languages

## UNDERGRADUATE PRIZE IN MODERN LANGUAGES

Awarded to the top returning student in Modern Languages. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN MODERN LANGUAGES

Awarded to the top graduating student in Modern Languages. Funded by Bishop's University alumni and friends.

## PROFESSOR E.H. YARRILL PRIZE

Awarded to a graduating student for proficiency in French and at least one additional modern language other than English.

## Music

## HOWARD BROWN PRIZE

(endowed in 1984 to honour the founding member of the Bishop's Music Department)
Awarded by the Department to continuing full-time Music majors.

## FRIENDS OF MUSIC PRIZE

Awarded to the Music Honours or Major student coming second in the competition for the M. Georgina Mills Prize in Music.

## M. GEORGINA MILLS PRIZE IN MUSIC

(established in 1986 by G.H. Stanley Mills in memory of his mother, a Montreal pianist)
Awarded to a full-time student finishing first year in the Music program with a $70 \%+$ average. Awarded by audition.

## UNDERGRADUATE PRIZE IN MUSIC

Awarded to the top returning student in Music. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN MUSIC

Awarded to the top graduating student in Music. Funded by Bishop's University alumni and friends.

## Philosophy

## GEORGE ENGLEBRETSEN PRIZE IN PHILOSOPHY

(endowed in 2008 by students, colleagues and friends of Professor George Englebretsen, in recognition of his many contributions to Philosophy and teaching at Bishop's University)
Awarded to a graduating student who has written an outstanding honours thesis and who is going to attend graduate school.

## UNDERGRADUATE PRIZE IN PHILOSOPHY

Awarded to the top returning student in Philosophy. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN PHILOSOPHY

Awarded to the top graduating student in Philosophy. Funded by Bishop's University alumni and friends.

## Physics and Astronomy

## FACULTY PRIZE IN PHYSICS

Awarded to the first-year full-time student with the highest average in his or her Physics and Mathematics courses.

## HUGH HAUGLAND PRIZE IN ASTRONOMY

(endowed in 2010 by friends and family of Hugh Haugland, an avid amateur astronomer)
Awarded to an undergraduate or graduate student who has shown high academic standing in his/her astronomy courses or has made a significant contribution to the operation of the Observatory. Selected by the Physics Department.

## T.S. NAGPAL PRIZE

Awarded for outstanding academic performance by a U0 student, preferably an international student. Selected by the members of the Department.

## DAVID SAVAGE PRIZE IN PHYSICS AND MATHEMATICS

(endowed by family and friends in memory of David Savage ' 42 who had a distinguished career in Quebec teaching and school administration)
Awarded to graduating students with high academic standing who are completing a double major or a major and minor in Physics and Mathematics.

## UNDERGRADUATE PRIZE IN PHYSICS AND ASTRONOMY

Awarded to the top returning student in Physics and Astronomy. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN PHYSICS AND ASTRONOMY

Awarded to the top graduating student in Physics and Astronomy. Funded by Bishop's University alumni and friends.

## Politics and International Studies

## ANDREW F. JOHNSON PRIZE IN INTERNATIONAL POLITICAL ECONOMY

(endowed by colleagues of Dr. Andrew F. Johnson in recognition of his contributions to the development of the program/the University)
Awarded to the graduating student attaining the highest academic standing in the International Political Economy honours program. Selection by the Department.

## PROFESSOR T.W.L. MacDERMOT MEMORIAL PRIZE

(endowed by former students and colleagues of Professor MacDermot, diplomat, scholar, and founding head of the Department)
Awarded to a graduating student(s) majoring in Political Studies of high academic standing, who, in the opinion of the Department, has made a significant contribution to the life of the University.

## PROFESSOR E.A. PRINCE MEMORIAL PRIZE FOR HONOURS THESIS <br> (endowed by a bequest in the Will of Professor E.A. Prince) Awarded to a graduating honours student, who in the opinion of the Politics and International Studies Department, has written an outstanding honours thesis.

## GERALD THEODORE RAYNER PRIZE

(endowed by the late Gerald Rayner '51)
Awarded to a student graduating in honours Political Studies, who is a Canadian citizen, who has taken courses in comparative public policy, who is planning to pursue post-graduate work in political studies, public administration or related fields, and who has shown a strong commitment to Canada.

## UNDERGRADUATE PRIZE IN POLITICS AND INTERNATIONAL STUDIES

Awarded to the top returning student in Politics and International Studies. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN POLITICS AND INTERNATIONAL STUDIES

Awarded to the top graduating student in Politics and International Studies. Funded by Bishop's University alumni and friends.

## Pre-Medicine Double Major

UNDERGRADUATE PRIZE IN PRE-MEDICINE DOUBLE MAJOR

Awarded to the top returning student in Pre-Medicine Double Major. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN PRE-MEDICINE DOUBLE MAJOR

Awarded to the top graduating student in Pre-Medicine Double Major. Funded by Bishop's University alumni and friends.

## Psychology

## DR. SHANNON GADBOIS PRIZE FOR EXCELLENCE IN PSYCHOLOGICAL RESEARCH

(established in 2002 by Dr. Shannon Gadbois, BA (Hons) '88, M.A., M.Ed., Ph.D. Queen's in honour of her parents Dalton and Shirley)

Awarded to two graduating students in Psychology who have written the best honours dissertations. Preference given to students applying to graduate school. Selected by members of the Department.

## UNDERGRADUATE PRIZE IN PSYCHOLOGY

Awarded to the top returning student in Psychology. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN PSYCHOLOGY

Awarded to the top graduating student in Psychology. Funded by Bishop's University alumni and friends.

## Religion

## HARRISON PRIZE

Awarded to an outstanding first-year student having completed a minimum of 18 credits in Religion in that year.

## LONG PRIZE

Awarded to an outstanding second-year student having completed a minimum of 18 credits in Religion in that year.

## UNDERGRADUATE PRIZE IN RELIGION

Awarded to the top returning student in Religion. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN RELIGION

Awarded to the top graduating student in Religion. Funded by Bishop's University alumni and friends.

## Sociology

## UNDERGRADUATE PRIZE IN SOCIOLOGY

Awarded to the top returning student in Sociology. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN SOCIOLOGY

Awarded to the top graduating student in Sociology. Funded by Bishop's University alumni and friends.

## Sports Studies

## UNDERGRADUATE PRIZE IN SPORTS STUDIES

Awarded to the top returning student in Sports Studies. Funded by Bishop's University alumni and friends.

## UNIVERSITY PRIZE IN SPORTS STUDIES

Awarded to the top graduating student in Sports Studies. Funded by Bishop's University alumni and friends.

## Internships

## NICHOLAS BACHAND CANADIAN CIVIL SOCIETY INTERNSHIP

(endowed in 2007 by the family of the late Nicholas Bachand '93. Nicholas was a socially and politically engaged individual who enjoyed professional success in politics and communications. A great Canadian citizen, Nicholas had a positive impact on all those who knew him.)
Awarded to a final year student in Political Studies (associated with the course POL 353) to provide a practical work-experience related to the Political Studies programs. The internship aims to enable students to contribute to the well-being of Canadian society by participating in voluntary and non-profit NGOs. Selected by the Department Chair.

## BORALEX INTERNSHIP IN SUSTAINABLE DEVELOPMENT (BISD)

(established in 2019 by Boralex Inc.)
Reporting to the Chair of the Department of Environment and Geography, the Boralex Intern will play a leadership role in promoting awareness of sustainable development and the realization of initiatives including, but not limited to, ecology, agriculture, water, and energy. Specific research projects will be assigned by the Department. Selection by application and interview.

## ELIZABETH HARVEY MEMORIAL SUSTAINABLE DEVELOPMENT INTERNSHIP

(established in 2007 by family and friends of the late Elizabeth Harvey '96, a loving daughter, mother, partner, dedicated friend, courageous student leader, environmentalist, and global citizen who was taken too early from the earth she cared for so deeply)
Awarded to a returning student leader who will develop, direct, and maintain student programs on campus which support the efforts of the University to achieve its strategic goal to "operate in an environmentally responsible manner as to promote the wellness of individuals, the community, and the natural world". Possibility of renewal.

## KRUGER INC. SUMMER SUSTAINABLE DEVELOPMENT INTERNSHIP <br> (endowed in 2011 by Kruger Inc.)

An annual summer internship, mandated by the Sustainable Development and Land Use Committee, to offer a full-time student a hands-on, practical experience working on real-time sustainable development initiatives on the Bishop's University campus.

## McCAIG INTERNSHIP FUND

(established in 2008 through an anonymous bequest in memory of Leslie McCaig '35)
This Internship Fund is used for projects that foster student innovation, initiative and self-reliance, by providing students with financial support to pursue for-credit internships in practical research and job-related experiences. Of educational value to the students, these projects must also involve tangible benefits to the social, cultural, environmental, and/ or economic health of the Eastern Townships community. Selection by the Experiential Learning Committee.

## CHARLES \& KATHLEEN RITTENHOUSE INTERNSHIP IN ARTS ADMINISTRATION

(established in 2008 by Jonathan Rittenhouse in memory of his parents) This internship funding is awarded to a deserving student in the Arts Administration practicum (AAD353). Selected by the program coordinator.

## EU STUDY TOUR AND INTERNSHIP

(funded by Bishop's University alumni and friends)
This internship provides financial support to students participating in a three-week immersion course in the European Union, including visits to its major institutions. Selected by the Department of Politics and International Studies.

## TURTLE ISLAND INTERNSHIP

(established in 2016 by Jordan Larochelle '14)
This non-renewable internship exists as a way for a returning student to share aboriginal culture with the Bishop's campus. The Intern will have the choice to host events, cultural activities, or bring in indigenous speakers to campus. This fund is available to First Nations, Inuit, Métis and/or Indigenous students from Canada, with special consideration also given to Indigenous students from around the world studying at Bishop's

## Student Relief Funds

Funds are available to full-time students of Bishop's University who demonstrate urgent financial need due to exceptional circumstances. The amount to be distributed will be dependent on each particular circumstance. Applications/inquiries should be made to the Financial Aid Officer.

## HARDY FAMILY EMERGENCY BURSARY

(established in 2007 by Roger V. Hardy '93)

# Student Enrichment Funds 

## ACADEMIC ENRICHMENT FUND

(endowed through the Learning for Life campaign, 1987-1992)
The purpose of the fund is to provide funding for various academic projects and research proposed by faculty and students and to enable students in the Fine Arts, Music, Drama and English Departments to receive inspiration and guidance in their creative efforts from some of Canada's finest artists through the Artist-in-Residence program.

## B.E.S.T. (BISHOP'S EXCEPTIONAL STUDENT TALENT) PROJECTS FUND

(established in 2009 by an anonymous donor with a strong belief in Bishop's and a desire to help the most promising students achieve their full potential)
The fund will provide valuable assistance to students, while also providing important support to University-wide objectives and will be the premiere experiential learning support at Bishop's.

## DOUGLAS F. BROWN OPPORTUNITY FUND FOR STUDENT PROJECTS (EXPERIENTIAL LEARNING)

(endowed in 2019 by Dr. Douglas F. Brown, Bishop's Biology Professor Emeritus)
This fund will encourage and enhance the scholarly and professional development of Arts \& Science students by supporting study and supervised research at the undergraduate and graduate levels. Funds may be used to purchase or rent materials, equipment, or services not available at Bishop's, and to finance travel for purposes of study or investigation, or to meetings or conferences for the purpose of presenting research results. Administered by the Dean of Arts \& Science.

## ROBERTA AND ALEX CAMERON FUND

(endowed in 2017 through the generous legacy of the late Dr. Roberta Cameron, BA '78, MA '88)
This fund will be used, at the discretion of the Dean of Arts and Science, to enrich the education of students in Humanities (preferably Religious Studies, Philosophy, Liberal Arts or Classics), through field trips, participation in academic conferences and competitions, invitations to guest speakers and artists, and other opportunities that will enhance classroom education.

## DIAN COHEN INDIGENOUS SUPPORT AND INITIATIVES FUND

(established in 2011 by Dian Cohen '10)
This fund will benefit First Nations, Inuit and Metis (FNIM) students enrolled at Bishop's to assist with expenses not covered by their Nation such as, but not limited to, travel, emergencies and costs related to studies. It will also provide financial assistance for activities at Bishop's aimed at promoting indigenous culture, and at encouraging exchanges on issues FNIM students at Bishop's have identified as being important, through conferences and other special events. Funds will be awarded, in consultation with the donor, by a Committee chaired by the VP Academic and to include the Success Coach for Indigenous Students.

## THE GUILD OF THE VENERABLE BEDE FUND

(endowed in 2011 by The Rev. Dr. Ronald ' 62 and Andrea Hunt to establish a fund in thanksgiving for Faculty of Divinity staff, students, professors and graduate members of The Guild of the Venerable Bede serving the church)
The fund recognizes former Chaplain Rev. Bradley Hicks. It celebrates the 20 years of ministry of The Ven. Heather Thomson, and exists to provide support for Campus Ministry activities.

## ALAN W. JONES OPPORTUNITY FUND

(established in 2010 by Reg Allatt '90 and E.T.F.S Inc. (now Global Excel) to honour the memory of Professor Jones who taught at Bishop's from 1969 until his death in 1985 and made a lasting impact on the School of Education)
The fund will support many important projects and needs within the School of Education and will be used to enhance the Education experience at Bishop's for as many students and faculty as possible.

## LUXTON FAMILY OPPORTUNITY FUND

(endowed in 2018 by John '67 and Sylvia Luxton in memory of their son, Simon E. Luxton; their daughter, Amy Luxton; and Sylvia's late brother, Deryck J. Scarrott who died in WW2)
This fund will enhance the educational experience for students of English, Biology and the Sciences - making possible opportunities that might not otherwise occur or would be unlikely because of lack of funding. The aim is to challenge, excite and motivate students to pursue their studies with enthusiasm and build devotion to their subjects, or alternately take a course outside their major field of study. Funds are awarded on the recommendation of Faculty and at the discretion of the Dean of Arts \& Science. Students should consult their Faculty in these disciplines about the criteria for receiving funding. Preference will be given to those who enrol in ENG 225-Shakesperience, and to Science students who enrol in CLA 309 - Archeological Fieldschool in Greece.

## McCONNELL STUDENT OPPORTUNITY FUND

(endowed by the McConnell Foundation through the Partners in Learning campaign, 1998-2003)
The purpose of the fund is to encourage projects that foster student innovation, initiative, and self-reliance, by providing students with financial support to pursue practical research and most particularly, job-related skills complementary to those taught in the academic programs.

## McPHAIL OPPORTUNITY FUND

(established in 2007 in recognition of Pam McPhail's lasting impact over a 20-year career at Bishop's, 1987-2007)
The fund will provide funding for special projects of educational benefit to students and/or faculty. Candidates should submit a brief description of their project and its expected outcomes to the University Advancement Office.

## RIESE EXPERIENTIAL LEARNING FUND

(established in 2009 through a bequest in the Will of Monique Riese '47)
The fund will provide support to experiential learning projects within academic programs.

## JOAN E. STADELMAN SUCCESS FUND

(endowed in 2019 by Joan E. Stadelman '66)
This fund supports mentorship programs related to student success, such as internships at the Student Success Centre organized by the Students' Representative Council and the Teaching and Learning Centre at Bishop's.

## Travel Funds

## BEAVERBROOK CANADIAN FOUNDATION - HUGH COWANS '70 SCHOLARSHIP

(established in 2019)

Awarded to a graduating student with a minimum cumulative average of $85 \%$ who wishes to broaden his/her horizons by studying in a UK graduate program for one year. Preference will be given to educational opportunities at UK universities ranked among the top 100 universities in the world as per the Times Higher Education World University Rankings. Applicants must submit a brief essay setting out their achievements and aspirations and will be expected to begin their studies in the term for which they have received their scholarship. Deferrals will not be permitted. Selected by a committee chaired by the Principal of the University, or his designate.

## CAHILL STUDY ABROAD AWARD

(established in 2017 by Michael ' 72 and Tania Cahill in memory of Mr. Cahill's mother, Laurice Mallouk Salhany, who inspired him to attend Bishop's University, for which he is forever grateful)
Awarded to students who seek to broaden their horizons by studying abroad for one or two semesters. Recipients must fulfill the requirements of the program, maintain full-time status and keep a minimum average of $80 \%$ throughout the course of their exchange. Preference to those with demonstrated financial need. Information available through the Student Mobility Officer.

## CAMSO BURSARY

(established in 1994 by Camoplast Inc. of Sherbrooke, QC)
Awarded to a Canadian student in the Williams School of Business participating in the International Exchange Program who demonstrates high academic standing and financial need. Recipient selected by the Student Mobility Officer in consultation with the Williams School of Business.

## GOLDBERGER GLOBAL OPPORTUNITIES FUND

(endowed in 2011 by Robert J. Goldberger '79, Chair of the BU Foundation 2017-present, and loyal friend of the University) Awarded to encourage and support full-time students to participate in a University approved exchange program or an experiential learning experience abroad. Information available through the Student Mobility Officer.

## HASLETT TRAVEL BURSARY

(endowed in 2002 through a bequest in the Will of Robert Haslett '57)
Travel bursary to encourage full-time students to participate in a University approved exchange program. Information available through the Student Mobility Officer.

## REV. RAY JENSEN TRAVEL BURSARY

(established in 2009 by Ray Jensen '50)
Travel bursaries to help support full-time students participating in a University approved exchange program. Information available through the Student Mobility Officer.

## DAPHNE ATCHISON MCMULLAN INTERNATIONAL STUDY FUND

(established in 2017 by Daphne Atchison McMullan '53 to support students participating in the University's international study program) Awarded to encourage more students to broaden their horizons by studying abroad and enhance the value of their Bishop's degree and subsequent career path. Information is available through the Student Mobility Officer.

## GAVIN ROSS MEMORIAL TRAVEL BURSARY

(endowed in 2010 through a bequest in the Will of Gavin Ross '56, a proud Bishop's graduate who strongly believed that travel forms an important part of one's educational experience)
A travel bursary to encourage full-time students to participate in a University approved exchange program. Information available through the Student Mobility Officer.

## WILLIAM L. SHURTLEFF BURSARY

(endowed in 1955 through a bequest in the Will of William L. Shurtleff) Awarded to students in the B.Ed. program to assist in covering costs associated with travel to their practicum. Information available from the Dean of the School of Education.

## VIVA ESPAÑA TRAVEL BURSARY

(funded by long-time Modern Languages professor Céline Dudemaine) Awarded to a student majoring in Hispanic Studies, studying on a two-semester, University approved exchange in Spain. The
International Recruitment, Admissions, and Student Exchange Program Office will select the recipient, who should demonstrate financial need.

## YOUNG TRAVEL BURSARY

(endowed in 2015 by former Bishop's employees Dave and Mary Ellen Young)
Available for any upper level history student wanting to travel outside of Sherbrooke to conduct archival research or present a research paper at a conference. Awarded by application to the History department.

## Administration and Librarians

## Administrative Organization

Bishop's University operates under the terms of an act of incorporation passed in 1843, and amended in 1852, 1927, and 1947, by the legislature of Quebec.

Jurisdiction and final authority in all the affairs of the University are vested in the Board of Governors, consisting of the Bishops of the Dioceses of the Anglican Church of Canada situated in Quebec, and the Trustees, numbering not less than twenty-one. At least six Trustees are appointed from the faculty, three from the student body and one from the staff. The remaining Trustees are community representatives, including three or more alumni.

The Board of Governors is composed of seventeen members consisting of nine external members, one member appointed by the Provincial Government. Seven internal members will consist of the Principal and Vice-Chancellor, three faculty members, one manager, one staff member and one student from the student body.

The Convocation of the University consists of the Chancellor, the Principal, the Vice-Principal Academic, the Chair of the Council of Advisor, the Chair and Vice-Chair of the Board of Governors, the Deans and the Professors. The Convocation con-

## Former Chancellors of the University

1853-56 The Hon. W. Walker, M.L.C.
1856-58 The Hon. Edward Bowen, D.C.L.
1858-65 The Hon. J.S. Mc Cord, D.C.L.
1865-75 The Hon. Edward Hale, D.C.L.
1875-78 The Hon. George Irvine, D.C.L.
1878-1900 R.W. Heneker D.C.L., LL.D.
1900-26 John Hamilton, M.A., D.C.L.
1926-32 F.E. Meredith, K.C., LL.D., D.C.L.
1932-42 The Hon. R.A.E. Greenshields, D.C.L., LL.D.
1942-50 G.H. Montgomery, K.C., M.A., D.C.L., LL.D.
1950-58 John Bassett, D.C.L., LL.D.
1958-68 The Hon. Mr Justice D.C. Abbott, P.C., B.C.L., D.C.L., LL.D.

1968-74 John H. Price, O.C., O.B.E., M.C., D.C.L.

1974-81 The Hon. Mr. Justice W. Mitchell, B.A., B.C.L., D.C.L.

1981-87 Robert A. Bandeen, O.C., B.A., Ph.D., LL.D., D.C.L.

1987-95 William I.M. Turner, Jr., C.M., B.A.Sc., M.B.A., LL.D., D.C.L.

1995-2005 Alex Paterson, O.C., O.Q. Q.C., B.A., B.C.L., D.C.L., LL.D.

2005-2013 Scott Griffin, B.A., D.C.L.

## Former Principals of the University

| $1845-77$ | Rev. J.H. Nicolls, <br> M.A., D.D., Queen's College, Oxford <br> 1878-85 <br> Rev. J.A. Lobley, <br> M.A., D.C.L., Trinity College, Cambridge |
| :---: | :--- |
| $1885-99$ | Rev. Thomas Adams, <br> M.A., D.C.L., St. John's College, Cambridge |
| 1900-05Rev. J.P. Whitney, <br> M.A., D.C.L., King's College, Cambridge |  |

fers degrees in course upon the recommendation of the Senate, and honorary degrees upon the recommendation of a Degree Committee drawn from its own members.

The Chancellor presides over Convocation at its meetings, and confers degrees in the name of the University. He is elected by the Board of Governors upon recommendation by the Council of Advisors for a term of five years. The Principal, the Vice-Principals, the Academic Deans, the University Librarian, the Dean of Student Affairs, and Secretary-General are appointed by the Board of Governors. The Principal is the Vice-Chancellor and the Chief Executive Officer of the Corporation. The VicePrincipal Academic acts on behalf of the Principal in the affairs of the University.

The academic work and life of the University are governed by the Senate, which also prepares and recommends plans and policies for academic development, and advises the Corporation concerning the academic needs of the University. The Senate is comprised of the Principal, the Vice-Principal Academic, the Academic Deans, the University Librarian, fourteen members of the faculty, six full-time students, one part-time student, the Secretary General (non-voting) and the Registrar (non-voting).

| 1905-06 | Rev. T.B. Waitt, <br> M.A., Lincoln College, Oxford |
| :---: | :---: |
| 1906-07 | Rev. H. de B. Gibbins, M.A., Litt. D., Wadham College, Oxford |
| 1907-19 | Rev. R.A. Parrock, M.A., LL.D., D.C.L., Pembroke College, Cambridge |
| 1920-22 | Rev. Canon H.H. Bedford-Jones, M.A., D.D., Trinity College, Toronto |
| 1922-47 | Rev. A.H. McGreer, O.B.E., M.C., M.A., Toronto; M.A., Queen's College, Oxford: D.C.L., LL.D., D.D. |
| 1948-60 | A.R. Jewitt, B.A., Dalhousie; M.A., Corpus Christi College, Oxford; Ph.D. Cornell; LL.D. Dalhousie; D.C.L., Bishop's |
| 1960-69 | C.L.O. Glass, B.A., Bishop's; M.A., St. John's College, Oxford; D.C.L. Bishop's; D.d'U., Sherbrooke |
| 1969-70 | A.W. Preston, M.A., Edinburgh, M.A., Oxon, D.C.L., Bishop's |
| 1970-76 | D.M. Healy, <br> B.A., Alberta; L. ès L. Docteur de l'Université de Paris; D.C.L., Bishop's; D.d'U., Sherbrooke |
| 1976-86 | C.I.H. Nicholl, B.Sc., Queen's, M.A.,Sc., Ph.D. Toronto, Ph.D., Cantab., D.C.L., Bishop's |
| 1986-95 | H.M. Scott, M.A., M.D., Queen's; F.R.C.P.(C); D.C.L. |
| 1995-200 | Janyne M. Hodder, B.A., M.A., McGill, D.C.L. |
| 2004-200 | 7 Robert Poupart, B.A., B.Ph., M.Ps., D.Ps. |
| 2007-200 | Jonathan Rittenhouse (Interim Principal) B.A. Loyola, M.A., Ph.D. Toronto |

M.A., Lincoln College, Oxford M.A., Litt. D., Wadham College, Oxford M.A., LL.D., D.C.L., Pembroke College, Cambridge
1920-22 Rev. Canon H.H. Bedford-Jones, M.A., D.D., Trinity College, Toronto
O.B.E., M.C., M.A., Toronto; M.A., Queen's College, Oxford: D.C.L., LL.D., D.D.
B.A., Dalhousie; M.A., Corpus Christi

College, Oxford; Ph.D. Cornell; LL.D.
Dalhousie; D.C.L., Bishop's ,Axf: D.C.L. Bish, St. Don's College Oxford, D.C.L. Bishop s; D.d U., Sherbrooke
M.A., Edinburgh, M.A., Oxon, D.C.L., Bishop's
B.A., Alberta; L. ès L. Docteur de l'Université de Paris; D.C.L., Bishop's; D.d'U., Sherbrooke
1976-86 C.I.H. Nicholl, B.Sc., Queen's, M.A.,Sc., Ph.D. Toronto, Ph.D., Cantab., D.C.L., Bishop's
M.A., M.D., Queen's; F.R.C.P.(C); D.C.L. B.A., M.A., McGill, D.C.L.
B.A., B.Ph., M.Ps., D.Ps.
B.A. Loyola, M.A., Ph.D. Toronto

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Vice-Principal Academic
Miles Turnbull, B.A. (UPIE), M.A. (McMaster),
Ph.D. (Toronto)
Vice-Principal Government Relations and Planning and
Secretary General
Trygve Ugland, Cand.mag. (Oslo), Cand.polit.(Oslo and
Queen's Belfast), Dr.polit.(Oslo)

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M.A. (Hebrew University), Ph.D. (Toronto)

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Corinne Haigh, B.A. (Mount Allison), M.A., Ph.D. (Western)
Dean, Williams School of Business
Reena Atanasiadis, B.Com., M.B.A. (Concordia)
University Librarian
Catherine Lavallée-Welch, B.A. (UQAM) and M.L.I.S.
(Montréal)

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Heather McKeen-Edwards, B.A. (Manitoba), M.A., PH.D.
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## The Senate

2019-20 Membership
The Principal and Vice-Chancellor (Chair)
The Vice-Principal
The Dean of the Williams School of Business
The Dean of the School of Education
The Dean of Arts and Science
The University Librarian
The Secretary General (Secretary; non-voting)
The Registrar (non-voting)
The Director of Continuing Education (non-voting)
V.P. Academic SRC - Ex officio

Michael Goldbloom
Miles Turnbull
Michele Murray
Corinne Haigh
Francine Turmel
Catherine Lavallée-Welch
Hans Rouleau
Hafid Agourram
Robert Palmer
Dawn Wiseman
Bruce Gilbert
Gregory Brophy
Layachi Bentabet
Brad Willms
Maxime Trempe
Mary Ellen Donnan
Jim Benson
Jenn Cianca
Madjid Allili
Yotam Baum
Angie Petitclerc

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## Alex Paterson,

O.C., O.Q.Q.C., B.A., B.C.L., D.C.L., LL.D.

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Stephen L. Black,
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B.A., M.A., Ph.D. (McGill)

Professor Emeritus of Geography

## Bertrand Boutin

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Professor Emeritus of French

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Professor Emeritus of Business Administration

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B.A.(Bishop's)

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B.A. (Carleton), M.A., Ph.D. (McGill)

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B.A., B.E.S. (Laval), M.A., Ph.D. (Sherbrooke)

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M.Aq.(Simon Fraser), Ph.D.(Alberta), D.I.C.(London)

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B.A.(Manchester), M.A.(UCLA), Ph.D.(Manchester), FRHistS.

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Diploma HÉC (Paris), M.A. (Yale), Ph.D. (Toronto)
Professor Emeritus of Business Administration

## Lowell W. Keffer,

B.A. (Toronto), M. ès A., D. ès L.(Laval)

Professor Emeritus of Études françaises et québécoises

## Nelly Khouzam,

B.Eng. (Ains Shams, Egypt), M.Sc. (McGill), Ph.D. (UMIST)

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## Margaret Lawther,

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Paul Chia-Shiang Lin,
B.Sc.(Taiwan), M.Sc.(McMaster), Ph.D. (UNB)

Professor Emeritus of Mathematics
Michael Lustigman,
B.A. (Toronto), M.A., Ph.D. (York)

Professor Emeritus of Sociology
Robert MacGregor,
B.Sc. (California State University), M.B.A. (Toronto)

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B.A. (Waterloo Lutheran), M.A. (McMaster), Ph.D. (York)

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S.E. (Lissa) McRae,
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L.ès SPS(Louvain), Ph.D.(Columbia)

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## Dieter K.H. Riegel,

Staatsexamen (Freiburg)
Professor Emeritus of German

## Jonathan Rittenhouse,

B.A., (Loyola), M.A., Ph.D. (Clark)

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## Bill Robson,

B. Comm. (Guelph), M.B.A. (McMaster),

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B.A., M.A. (Western), M.A.,

Ph.D. (Clark)
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Professor Emeritus of Accounting

## David Seale,

B.A. (Queen Mary College), M.A. (McMaster), Ph.D.
(London)
Professor Emeritus of Classical Studies
Willam A. Shearson,
B.A., M.A., Ph.D. (Toronto)

Professor Emeritus of Philosophy
Stephen Sheeran,
B.A., M.A. (Bishop's)

Professor Emeritus of Modern Languages
Fakhari A. Siddiqui,
B.Sc., M.Sc.(Beirut)

Professor Emeritus of Economics
Gwendolyn Trottein,
B.A. (Indiana), M.A., Ph.D. (Illinois)

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Chi Te Tsai,
B.Sc.(Taiwan), M.Sc.(Queen's), Ph.D.(Laval)

Professor Emeritus of Mathematics
Greg Tuck,
B.A. (Manitoba) B.F.A. (Alberta)

Professor Emeritus of Drama

## Robert K.J. van Hulst,

Cand. Biol. (Utrecht), Drs. Biol. (Nijmegen), Ph.D. (Western)
Professor Emeritus of Biology
Dimitri Vouliouris
B.Sc. (Athens Grad Shool of Economics \& Business),
M.Sc. (London)

Professor Emeritus of Computer Science

## Sandra Ward,

B.A., M.A. (Bishops)

Professor Emeritus of English Second Language
P.E. Wilson, script,
B.Sc., Dip. Ed., (London), A.F.I.M.A., M.Sc. (Acadia)

Professor Emeritus of Mathematics
C. Wojatsek,
B.A. (Bratislava, Czech.), M.A. (Debrecen, Hung.),

Dip. Ed. (Debrecen, Hung.),
Ph.D. (Montréal), Hum.Sc.D. Professor Emeritus of History

## Lourdes Zubieta,

B.Sc. (Mexico), M.Sc., Ph.D. (Montreal)

Professor Emeritus of Business Administration

## WILLIAM AND NANCY <br> TURNER AWARD

## FOR TEACHING

In 1991, then Chancellor William I.M. Turner Jr. established an award for excellence in teaching, in co-operation with the Bishop's University Faculty Council and the Student's Representative Council. This award of $\$ 1,000$ is given annually at Convocation to a member of faculty who has made an extraordinary contribution to the education of Bishop's students through teaching. Nominations for the award may come from current students and alumni. Winners of this prestigious award include:

1991 | Dr. Keith Moore, |
| :--- |
| Department of Biology |

1992 Dr. Michael Fox $\begin{aligned} & \text { Department of Geography }\end{aligned}$
1993 Prof. Lissa McRae
Business: Human Resources
1994 Dr. Michael Childs
Department of History
1995 Dr. Karl Kuepper
Department of German
$1996 \begin{aligned} & \text { Dr. Lorne Nelson } \\ & \text { Department of Physics }\end{aligned}$
1997 Dr. Andrew Knight
Department of Political Studies
1998 Dr. Andrea Drumheller $\begin{aligned} & \text { Department of Psychology }\end{aligned}$
1999 Dr. Stuart McKelvie $\begin{aligned} & \text { Department of Psychology }\end{aligned}$
2000 Dr. Marianne Vigneault
Department of Economics
2001 Professor Denise Fortier
Business: Management/Human Resources
2002 Dr. Michael Lustigman
Department of Sociology
$2003 \begin{aligned} & \text { Dr. Dale Stout } \\ & \text { Department of Psychology }\end{aligned}$
2004 Dr. Karl Wegert
Department of History
2005 Professor George Rideout
Department of Drama

2006 Dr. Gerry Coulter Department of Sociology
2007 Dr. Harvey W. White Department of Religion
2008 Dr. Marianne Vigneault Department of Economics
2009 Dr. Ambrose Leung Department of Economics
2010 Dr. Stuart McKelvie Department of Psychology
2011 Dr. Katsunori Hizawa Department of Modern Languages, Literatures, and Cultures
2012 Dr. Jessica Riddell Department of English
2013 Prof. Michael Teed Business \& Human Resources
2014 Dr. Michele Murray Department of Religion
2015 Dr. James Crooks Department of Philosophy
2016 Dr. Christopher Stonebanks Department of Education
2017 Dr. Bruce Gilbert Departments of Liberal Arts and Philosophy
2018 Dr. Sarah-Myriam Martin-Brûlé Department of Politics

2019 Dr. Michael Teed Business and Human Resources

Dr. Avril Aitken Department of Education

## Librarians

Daniel Bromby,
B.A. (Bishop's), M.L.I.S. (McGill)

## Sarah Heath

B.A. (Bishop's), M.L.I.S. (Western)

## Gary McCormick,

B.A. (Carleton), M.L.I.S. (McGill)

## Eliza McKnight,

B.A. (Bishop's), M.L.I.S. (Western)

## Lorraine Smith,

B.Sc. (Bishop's), M.L.I.S. (Western)

Université Bishop's University
2600 College Street
Sherbrooke, Quebec
J1M 1Z7
Tel. (819) 822-9600
ubishops.ca

